Emergency Management Corporate Program Manual (CAN-US-MEX)

Approvals

Approvals were captured electronically and attached to the published document.

Document Contact	Specialist Emergency Management
Document Owner Manager Approver	Manager Emergency Management
Management Endorsement	Vice President Safety, Quality & Compliar

Information has been redacted from this section to protect the safety and security of TC Energy. Information redacted includes Company employees' names.

BRIEFDESCRIPTION OF CHANGE

This annual revision incorporates minor editorial improvements and organizational changes, as well as the following major improvements:

- Clarified TC Energy Incident Management Assistance Team content to align with Incident Management Team Strategy, Section 3.2.2.
- Clarified the TC Energy Emergency Response Time Standard description and applicability. Updated Phase 1 Actions, Section 4.7.
- Updated the policy and commitment to reflect the TC Energy Integrated Commitment Statement, pages 14-15

REVISION HISTORY

The Revision History table captures a high level summary of the five most recent versions (Rev. No.) of this document and the signoffs obtained for eachrevision.

Revision History						
Rev. No.	**Date** (YYYY-MMM-DD)	**Document Status**	**Brief Description of Change History**	**Document Contact**	**Reviewer(s)**	**Document Approver(s)**
26	2022-Aug-12	Published	Annual document revision with minor changes as summarized above.	**Information has been redacted from this section to protect the safety and security of TC Energy. Information redacted includes Company employees' names.**		
25	2021-MAY-13	Published	Annual document revision with major improvements listed above.			
24	2020-DEC-03	Published	Annual document revision withmajor improvements listed above.			
23	2019-DEC-02	Published	Annual document revision with major improvements listed above.			
22	2018-DEC-03	Published	Canadian Regulatory Requirements for Contingency Planning and Risk Assessment			
21	2017-DEC-01	Issued	Routine updates resultant of organizational and personnel changes.			

Table of Contents

Title and Copyright

Document Approval and Signatures

This Manual is maintained in accordance with TC Energy's Controlled Document Library Standard (013841259), and all document revisions will comply with this Standard.

Management of Change – Document Change Requests and Modifications

There are two steps in initiating change to this Manual.

1. When a program stakeholder identifies a potential improvement to the document, the stakeholder shall submit feedback in the Controlled Document Library.
2. When feedback is of high urgency, high volume, or coincides with a scheduled update to the document, the Document Contact shall initiate revision of the document in the Controlled Document Library. When feedback is *not* of high urgency, the Document Contact may choose to reserve the feedback for incorporation during the next scheduled revision.

The process within the Controlled Document Library forms a record of the Document Contact's efforts to ensure the document change complies with regulations, codes, standards, company policies, and industry best practices; identifies stakeholders to participate in and review the impact of the requested changes; and ensures that, for approved changes, all known impacts are addressed.

Schedule of Review Cycle

This Manual may be modified at any frequency and at any time throughout the calendar year; however, it must be reviewed and updated at intervals not exceeding 15 months, but at least once each calendar year.

Manual Approval

This document shall include at least two approvers. The Document Contact and one TC Energy Vice President (within the same chain of command) are required to approve this Manual before

it is published. Where there are any levels of leadership between the Document Contact and the approving Vice President, those leaders should also be included as reviewers of the Manual.

Responsibilities of Approvers

Approvers of the Manual shall, at minimum, fulfill the following responsibilities:

- Review the Manual to ensure content is current and correct and regulatory requirements within the scope of the Emergency Management Program are addressed.
- Bring forward all concerns regarding content, structure, or revision processes related to revision of the Manual.
- Enable employees to enforce policies and procedures described in the Manual.
- Encourage peers and internal stakeholders to abide by policies and procedures described in the Manual.

Distribution List

Each Region, Facility, and Support Department EPC is issued at least one controlled copy of this Manual. All members of the Emergency Management Team, all Vice Presidents of Operations, and the Chief Operating Officer are issued a controlled copy.

All holders of a controlled copy will be notified of any revisions made to the Manual; it is the responsibility of the holder to ensure their copy is updated when revisions are issued.

Copy	Region/Support Department	Contact Name
1	Executive Vice President (CA Natural Gas & CA/US Liquids Pipelines	**Information has been redacted from this section to protect the safety and security of TC Energy. Information redacted includes Company employees' names.**
2	Executive Vice President & Group Executive, US & Mexico Natural Gas Pipelines	
3	Senior Vice President, Technical Center	
4	Manager, Emergency Management	
5	Vice President, Safety, Quality and Compliance	
6	Vice President, Canada Natural Gas Pipeline Operations	
7	Vice President, US Gas Pipelines Operations	
8	Vice President, Liquids Field Operations	
9	Vice President, US Gas Technical & Operations Services	
10	Vice President, Mexico Integrity, Operations and Projects	
11	Executive Vice President, CA Natural Gas Pipelines	
12	Director, Emergency Management & Corporate Security	
13	Executive Vice President, Power & Storage and Commercial Marketing	
14	Emergency Management (Business Continuity)	
15	Manager, Emergency Preparedness & Response	
16	Emergency Management	
17	Emergency Management	
18	Emergency Management	
19	Emergency Management	
20	Emergency Management	
21	Emergency Management	

22	Emergency Management	**Information has been redacted from this section to protect the safety and security of TC Energy. Information redacted includes Company employees' names.**
23	Emergency Management	
24	Emergency Management	
25	Emergency Management	
26	Region EPC – CDN Gas Wildrose & Rocky Mountain	
27	Emergency Management	
28	*Region EPC – CDN Liquids Pipelines*	
29	Emergency Management (Business Continuity)	
30	Region EPC – CDN Gas Central & Eastern	
31	Mexico – Ops Regulatory Compliance EPC (MX)	
32	Facility EPC – Edson/Crossfield/Becancour/Host Facilities	
33	Emergency Management	
34	Mexico - Legal EPC (MX)	
35	Region EPC – US Gas Borders West & South	
36	Region EPC – US Gas North & East	
37	Region EPC – US Gas - Central	
38	Copy removed from circulation	
39	Region EPC – Mexico	
40	Region EPC – US Gas Great Lakes & Heartland	
41	Region EPC – US Liquids Pipelines	
42	Copy removed from circulation	
43	Copy removed from circulation	
44	Copy removed from circulation	
45	Copy removed from circulation	
46	Public Affairs and Communicati ons EPC (CA/US/MX)	
47	Environmental East EPC (US)	
48	Regulatory Compliance EPC (CA)	
49	Regulatory Compliance EPC (US)	
50	Gas Control Center EPC (CA)	
51	Gas Control Center EPC (US)	
52	Copy removed from circulation	
53	Oil Control Center EPC (CA/US)	
54	Customer Emergency/Commerci al EPC (CA)	
55	US Environment Services EPC (US West/MX)	
56	CEOC Managers SPOC - Calgary (CA)	
57	CEOC Managers SPOC - Houston (US)	
58	CEOC Managers - Mexico City (MX)	
59	Copy removed from circulation	
60	Health & Safety (CA/US/MX)	
61	Copy removed from circulation	
62	Human Resources EPC (CA/US)	
63	Human Resources (MX)	
64	Informati on Systems EPC (CA/US/MX)	
65	Copy removed from circulation	
66	Environment, Land, & Indigenous Relations EPC (CA)	
67	Land Management EPC (US)	
68	Copy removed from circulation	
69	Legal EPC (CA)	

70	Legal EPC (US)	**Information has been redacted from this section to protect the safety and security of TC Energy. Information redacted includes Company employees' names.**
71	Oil Scheduling EPC (CA/US)	
72	Corporate Security EPC (CA/US)	
73	Mexico - Corporate Security EPC (MX)	
74	Technical Services EPC (CA)	
75	Primary USPC Control Room	
76	Primary USPW Control Room	
77	Interim Control Room (DR1) - Fannin	
78	Interim Control Room (DR2) - Bryan	
79	Backup Oil Control Center (BCC)	
81	Copy removed from circulation	
82	Technical Services (US)	
83	Facility EPC – Energy Operations (Host Facilities – Bear Creek, Redwater, Mackay River, Grandview, Carseland)	
84	Copy removed from circulation	
85	Edson Control Center	
86	Crossfield Control Center	
87	Becancour Control Center	
88	Emergency Management	
89	Canada Energy Regulator (CER) *Note: one paper copy and one electronic copy of this Manual shall be provided to the CER by April 30 of each year; details of any updates to public website external links for this Manual will be provided to the CER within two weeks of the update. Canadian Regulatory Complianceshall facilitate these submissions.*	
90	Mexico – Communicati ons EPC	
91	Mexico – Technical Services EPC	
92	Mexico – Transportation Services EPC	
93	Mexico – Stakehol der & Government Relations EPC	
94	Mexico – Land, Permits & Environment EPC	
95	Mexico – Health & Safety EPC	

Policy and Commitment

All elements of the Emergency Management Program shall be conducted in accordance with TC Energy's Commitment Statement included on the following page.

Our Commitment

We deliver the energy people need, every day.

Safely. Innovatively. Responsibly. Collaboratively. With Integrity.

Safe, reliable and sustainable operations are foundational in everything we do — in our culture, with Indigenous groups, landowners, stakeholder engagements and partnerships, and in our decision-making. It starts with our core values of safety, innovation, responsibility, collaboration and integrity. We uphold these values in our commitments to ***Protect our planet,*** create ***Shared prosperity*** and ***Empower people:***

Protecting our planet

- Embracing energy transition and reducing greenhouse gas emissions
- Leaving the environment in a condition equal to, or better than we found it
- Achieving our Zero is real safety commitment – believing all harm, loss and incidents are preventable

Shared prosperity

- Strengthening community resilience – building a stronger future, together
- Enhancing energy sector sustainability with technology
- Integrating sustainability into our strategy and decision-making

Empowering people

- Partnering with Indigenous groups and advancing reconciliation
- Enhancing our relationships with landowners
- Fostering inclusion and diversity
- Focusing on mental health and psychological safety

Strong governance, responsible management and committed leadership

We are committed to advancing our culture and conducting business with a disciplined approach through **TC Energy's Operational Management System (TOMS)**. This integrated management system applies across the organization and throughout the full asset lifecycle. **TOMS:**

- Outlines a consistent and proactive approach to risk management and protection of people and assets
- Incorporates expectations on how we conduct our business, including health, safety, environment, quality, asset integrity and relationships with Indigenous groups, landowners and stakeholders
- Meets or exceeds all applicable laws and regulations and is aligned to industry standards
- Requires quality assurance, performance measures, monitoring and continual improvement processes

All employees and contractors are accountable for delivering on our commitments and must:

- Communicate and report risks, hazards, potential hazards, quality issues, incidents and near hits
- Communicate and uphold expectations concerning quality for our business processes, decisions and products
- Stop work when there are unsafe conditions
- Endeavor to do business only with companies and contractors that share our values, and regularly assess and audit their performance

TC Energy expects and requires our employees and contractors to report all quality concerns, suspected violations of corporate governance documents, applicable laws and authorizations, as well as risks, hazards, potential hazards, incidents involving health and safety or the environment, and near hits. TC Energy takes reports seriously and, where appropriate, investigates to identify facts, conduct a root-cause analysis and prevent reoccurrence. All employees and contractors making reports in good faith will be protected from retaliation.

François Poirier
President and Chief Executive Officer

March 2022

In addition to this Commitment Statement, TC Energyconducts its business in accordance with several other Corporate Commitment Statements, Policies, Programs, and Standards. The following is a list and brief description of those that would be most likely to impact Emergency Management; this is *not* a comprehensive list of all Corporate Commitment Statements, Policies, Programs, and Standards:

- Code of Business Ethics
  - TC Energy prides itself on being a company that makes the right choices and does the right thing. TC Energy's Code of Business Ethics (COBE) helps put the Company's values into practice in all daily decisions and activities. and clarifies what making the right choices and doing the right thing really means.
- Communications Policy
  - Clear communication is key to facilitating transparent and informed dialogue with a diverse audience. TC Energy's communications are integrated, consistent, timely, clear, andcurrent.
- Corporate SecurityPolicy
  - TC Energy provides a safe and secure work environment where security risks and threats to personnel, corporate assets and reputation are properly managed.
- Indigenous Relations Policy
  - TC Energy applies our Indigenous Relations Policy to manage our relationships with the Indigenous communities the Company may impact and the diversity of issues that are presented. Ensuring internal stakeholders understand Indigenous issues and related risks and opportunities, enabling the Company to manage the issues proactively and react positively.
- Stakeholder Engagement Commitment Statement
  - TC Energy recognizes that excellence in stakeholder engagement helps deliver value and ensures we do so in a socially and environmentally responsible manner. Engaging with stakeholders means listening, providing accurate information, and responding to stakeholder interests in a prompt and consistent manner.

1. Introduction and Program Overview

1.1. Introduction

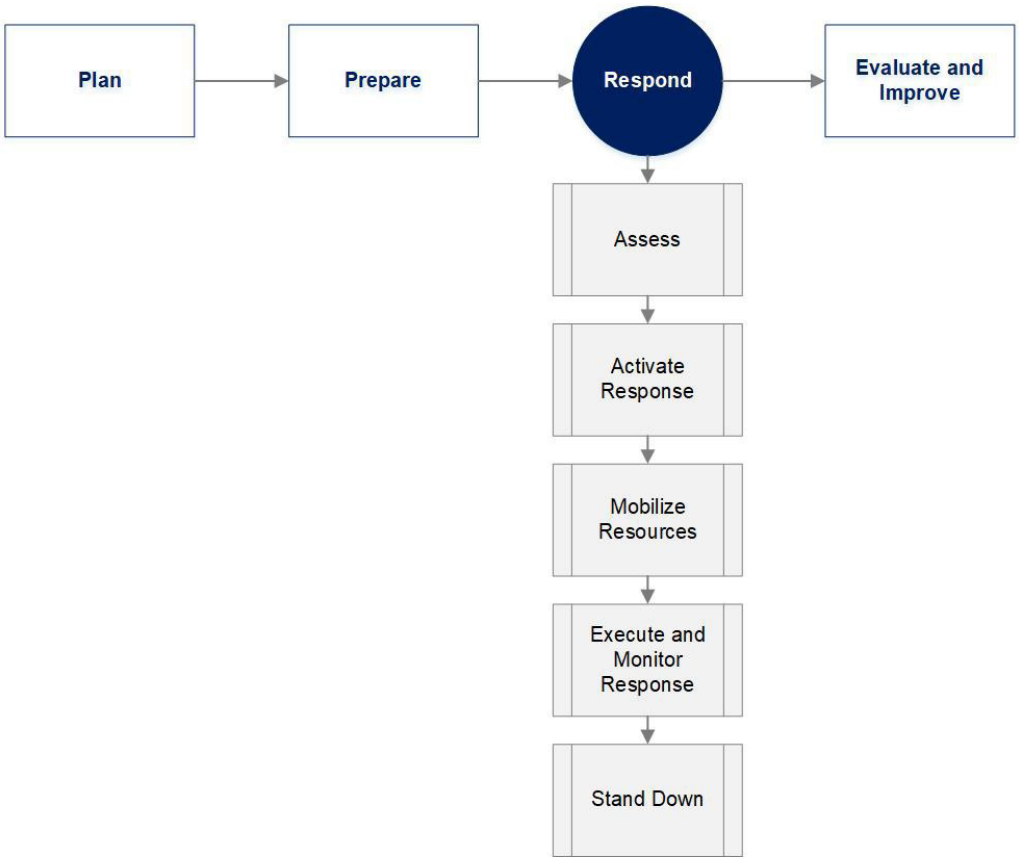
TC Energy develops and maintains state of the art emergency preparedness and response systems with the objectives of controlling, mitigating, and minimizing the impact of emergencies to life safety, property and the environment.

TC Energy's Emergency Management Program focuses on these two key objectives:

- Promote a culture of emergency preparedness.
- Facilitate effective and expeditious emergency response.

TC Energy's Emergency Management Program applies (as appropriate) the Emergency Management Standard and Emergency Management Process, using applicable procedures, across all assets operated by TC Energy affiliates.

The figure below shows the relationship between emergency preparedness and emergency response within TC Energy.



1.2. Purpose

The purpose of the Emergency Management Programis to provide a consistent and comprehensive approach to Emergency Management within TC Energy.

Neither this Manual nor any portion of the Emergency Management Program supersedes any legal requirements or regulations. The Emergency Management Program adheres to all legal requirements or regulations, whether or not noted in this Manual.

1.3. Scope

The Emergency Management Program guides all aspects of emergency preparedness and response and supports all practical activities to ensure public safety, regardless of the cause of the emergency or assignment of fault.

Emergencyresponse is conducted within the parameters of TC Energy's HS&E Commitment Statement and TC Energy's Operating Procedures (TOPs). All requirements for working conditions (e.g. confined space, environmental monitoring, etc.) and Personal Protective Equipment (PPE) shall be followed unless otherwise approved by management to adapt to the needs of an emergency.

The Emergency Management Program applies to all assetswhich are wholly owned and operated by TC Energy affiliates as well as all Partially Owned Entities and/or Joint Ventures where a TC Energy affiliate has operational control.

The Emergency Management Program is used by Company employees to prepare for and respond to TC Energy emergencies. All TC Energyregions and facilities use this Manual to maintain a general state of preparedness for emergencies

The Emergency Management Team is accountable to provide guidance relatedto emergency preparedness activities for the following:

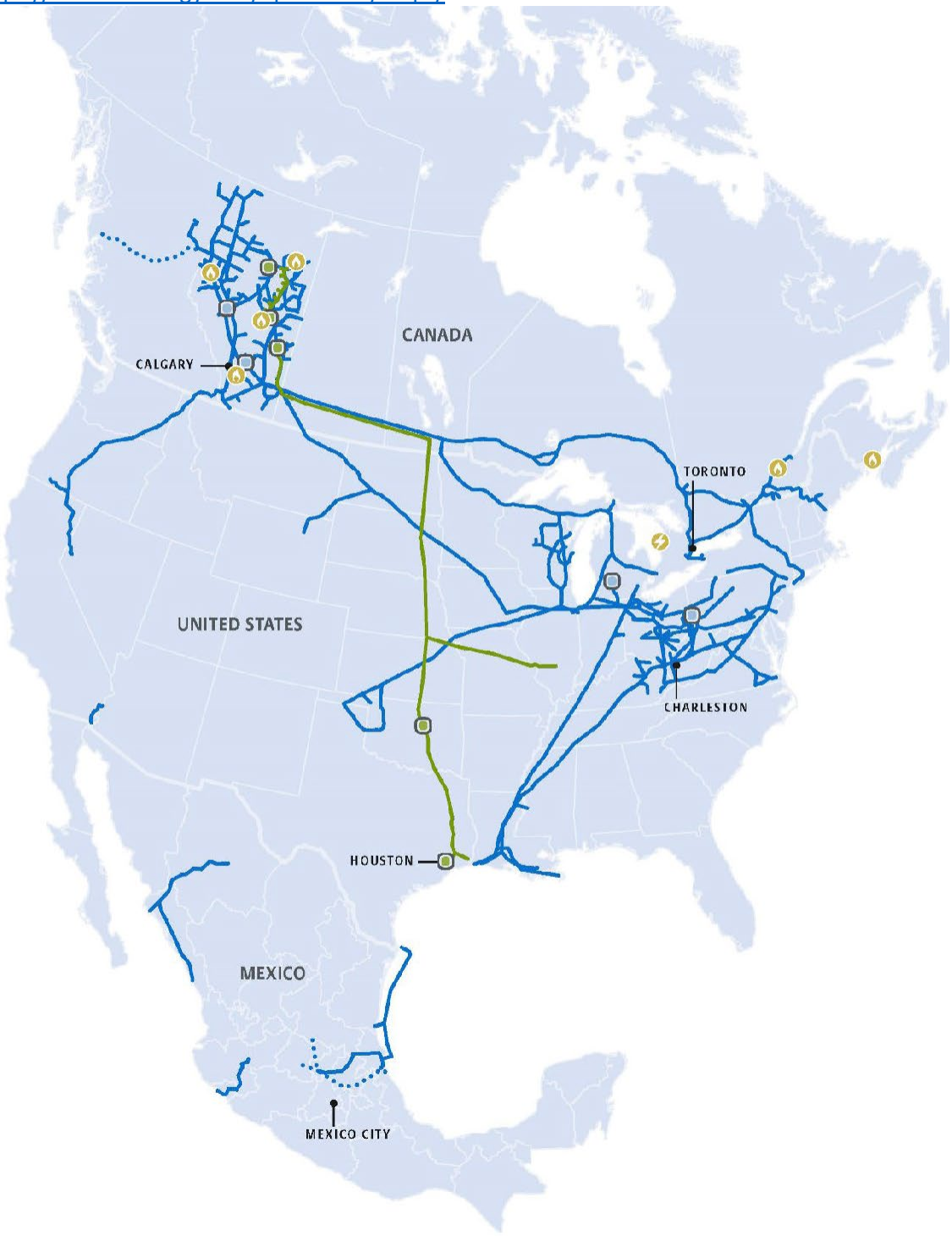
- Natural Gas Pipelines inCanada, the United States, andMexico
- Liquids Pipelines in Canada and the United States
- Gas Storage facilities inCanada andthe United States
- Thermal Power facilities in Canada

1.3.1. Operations Overview and System Maps

The Emergency Management Program applies to all pipelines, gas storage, and power assets operated by TC Energy Corporation. The table and map below provide an overview of these assets.

Canada	United States	Mexico
Canadian Natural Gas Pipeline Systems • Coastal Gas Link • NOVA Gas Transmission Ltd. (NGTL) • Foothills Pipe Lines Ltd. (Foothills) • TransCanada Pipelines Ltd. (Canadian Mainline) • TransCanada Pipeline Ventures Ltd (Ventures) • Great Lakes Pipeline Canada Ltd (Great Lakes) • Trans Quebec & Maritimes Pipeline Inc (TQM)	**U.S. Natural Gas Pipeline Systems** • ANR Pipeline System • Bison Pipeline • Columbia Pipeline Partners LP (CPG) • Great Lakes Gas Transmission LP (GLGT) • Northern Border Pipeline Company (NBPL) • Portland Natural Gas Transmission System (PNGTS) • TC Pipelines, LP • Tuscarora Gas Transmission Company (GTN/Tuscarora) • North Baja	**Mexican Natural Gas Pipeline Systems** • Guadalajara • Mazatlan • Tamazunchale • Topolobampo • Sur de Texas-Tuxpan • Tuxpan-Tula • Tula-Villa de Reyes
Canadian Power Facilities • Becancour	**U.S. Liquefied Natural Gas Facilities** • Chesapeake LNG Plant	
Liquids Pipelines • TransCanada Keystone Pipeline GP Ltd (Keystone System) • Grand Rapids Pipeline GP Ltd (Grand Rapids System) • Northern Courier Pipeline GP Ltd (Northern Courier System) • White Spruce Pipeline GP Ltd (White Spruce Pipeline) • Mackay East Pipeline	**Liquids Pipelines** • TransCanada Keystone Pipeline CG Ltd (Keystone System)	
Liquids Terminal Facilities • Hardisty Tank Terminal	**Liquids Terminal Facilities** • Cushing Tank Terminal • Houston Tank Terminal	
Canadian Gas Storage Facilities • Crossfield Gas Storage • Edson Gas Storage	**U.S. Reservoir Services** • Hardy Gas Storage	

An interactive version of the mapbelow can be accessed by clicking the following link: https://www.tcenergy.com/operations/maps/



1.4 TC Energy's Operational ManagementSystem(TOMS)

TC Energy's Operational Management System (TOMS) applies across the organization and is the Company's single management system for ensuring the integrity of our assets andthe safety and security of the public, our personnel, and the environment. TOMS comprises the framework to ensure our adoption of all applicable regulatory requirements for the Company's asset lifecycle, including design, construction, operation, and abandonment. The Emergency Management Program outlines further requirements that align with TOMS in this section. Business units, including operations and projects, must implement and adhere to the requirements of TOMS and the Emergency Management Program.

Projects align to TOMS via the Project Governance Program, which requires projects to follow and apply the Project Delivery Standard (PDS). PDS provides framework and guidance on project execution and requires that projects and their contractors develop plans that ensure conformance with the Emergency Management Program and PDS.

1.4.1. Leadership Commitment and Strategy

Numerous corporate policies and commitments govern the Emergency Management Program, as described in the Policy and Commitment Section of this Manual. Through these overarching corporate commitments and through the Program Steering Committee; adherence to Program Assurance Standards; and ongoing Quality Control Measures the Emergency Management Program applies Leadership Commitment and Strategy.

Program SteeringCommittee – Governance & Management Review

The Emergency Management Program is subject to Management Review in accordance withthe Management Review of Management Systems and Programs Procedure which enables the identification of trends and facilitates the assessment ofprogress, performance gaps and assurance findings that may impact the continuous suitability, adequacy, and effectiveness of a Program.

The Emergency Management Program Steering Committee oversees TC Energy's Emergency Management Program to ensure appropriate senior management governance and review takes place. The Emergency Management and Corporate Security Steering Committee Charter (008639746) guides TC Energy Emergency Management Program.

Assurance Standards

The Emergency Management Program follows the goals, objectives and targets requirement in TOMS Element 1 Leadership Commitment and Strategy(see TOMS Manual, 009964063). Emergency Management Program Assurance Standards are developed in alignment with all other affected TC Energy management system programs tomeet overarching Corporate and divisional strategies. Because Program Assurance Standards continually evolve, they are

maintained through the Emergency Management SharePoint site.

1.4.2. Risk Management

The Emergency Management Program follows TOMS Element 2 Risk Management (see TOMS Manual, 009964063). More information on Risk Management within the Emergency Management Program is included in Section 2 of this Manual.

1.4.3. Operational Controls

Operational controls within the Emergency Management Program ensure proper design, construction, operations and maintenance for safe and effective pipelines and facilities. As such, the Emergency Management Program is aligned to the Controlled Document Library Standard (013841259) and Contingency Planning requirements.

Contingency Planning

TC Energy's Contingency Planning Process (CDN-US-MEX) (1015904227) is a requirement for the Emergency Management Program. Inthe context of the emergency preparedness phase, the Contingency Planning Form (CDN-US-MEX) (1015901835) will be used as described in the Contingency Planning Process.

The Contingency Planning Process guides company personnel on how Abnormal Conditions will be assessedand evaluatedand when contingency plans will be developed. It applies to emergency-related activities and personnel providing direct support to these activities as defined by the Emergency Management Program.

In context of the emergency preparedness phase, the Emergency Management Program's Emergency Management Risk Lead is accountable to manage the Emergency Management Program Hazardand Barrier Inventory (HBI), while all other Emergency Management Program stakeholders (comprised of all Emergency Management Team members and EPCs) are accountable to participate in emergency preparedness activities.

In accordance with the Contingency Planning Process, the Emergency Management Risk Lead and Emergency Management Program stakeholders shall take the following role-specific actions in relation to potential Abnormal Conditions:

i. At any time, TC Energy's Emergency Management Team shall make themselves available to Required Personnel upon request, to provide guidance in the evaluation of an Abnormal Condition in accordance with the Contingency Planning Process.
ii. During the annual review/update cycle of the Emergency Management Program's HBI, the Emergency Management Risk Leadshall conduct a formal review within the Emergency Management Team to identify any Abnormal Conditions that may pose a risk to any new and/or existing assets, or tothe effectiveness of TC Energy's

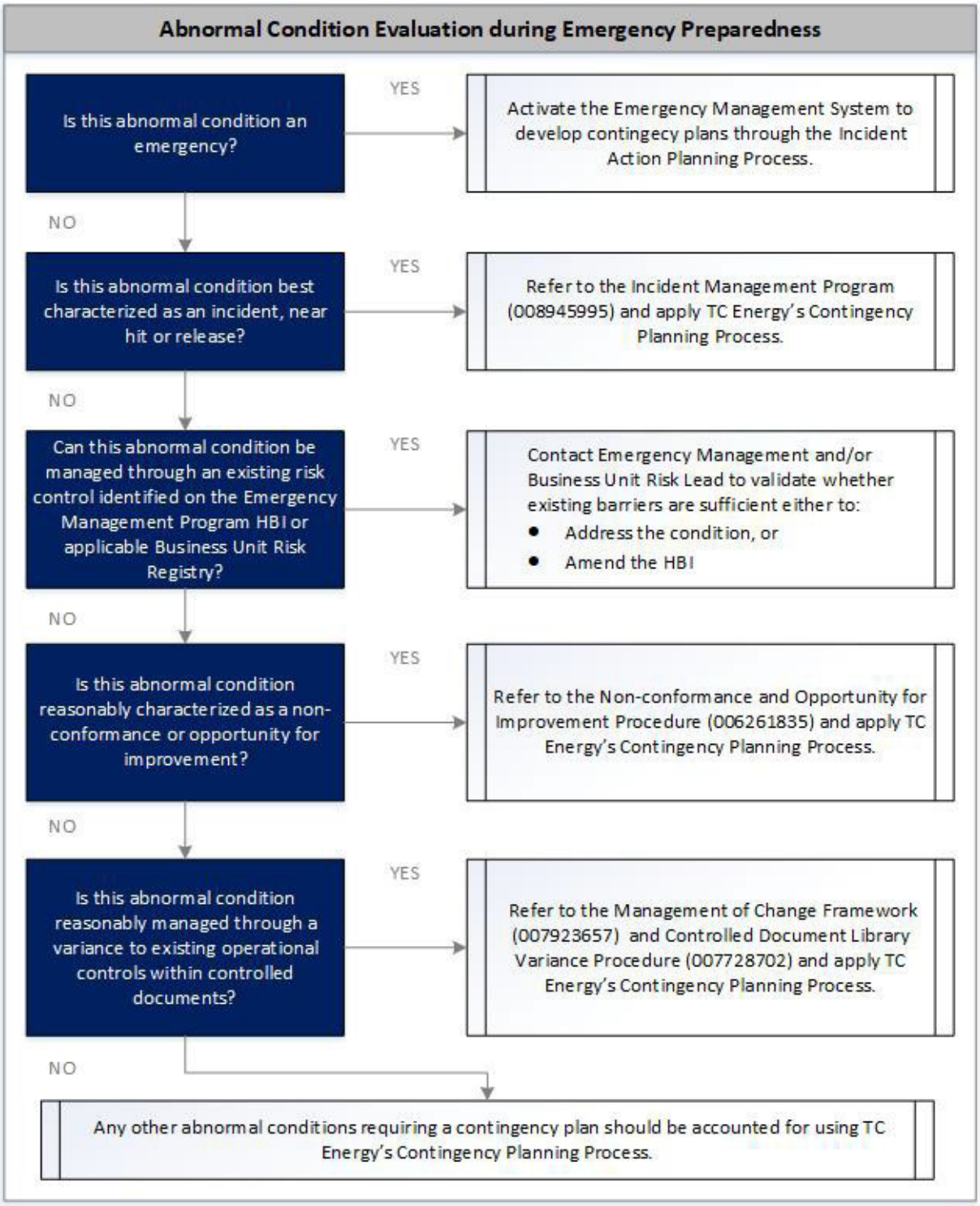
response to emergencies affecting them.

iii. During annual emergency preparedness activities (i.e. training and exercises) and the annual risk management process as described in this Manual, Emergency Management Program stakeholders shall:

a. Validate that existing barriers in the Emergency Management Program's HBI and/or relevant BU Risk Registryare adequate to address possible Abnormal Conditions in accordance with the Contingency Planning Process, and if such barriers are not deemed to be sufficient:

   i. Work with the relevant Business Unit and Emergency Management Team to determine additional risk treatment options as described in this Manual
   ii. make appropriate and sufficient amendments to the HBI as necessary, to reflect the risk treatments, communicate them to the applicable Business Unit and incorporate them into the annual Management Review meetings.
   iii. consult withthe relevant Business Unit and make appropriate and sufficient amendments to its Risk Registryand incorporate them into the annual Management Review meetings.

b. If not able to validate the adequacy of existing barriers, further evaluate any possible Abnormal Condition in accordance with the considerations depicted in the diagram below, and validate, develop, approve, implement, and monitor any contingency plan developed in accordance with the Contingency Planning Process.



The specific process for contingency planning during emergencyresponse is further explained in Section 3.5 of this Manual.

1.4.4. Roles, Responsibilities and Competency

The Company's ability to safely respond to emergencies depends on being well prepared in terms of organizational resources and their capability. The Emergency Management Program has established roles, responsibilities, and authorities for the Programs in Section 6.1 of this Manual. Training and evaluation (through drills and exercises) of the individuals who fill these roles are described in Section
6.3. When changes to these roles or the Emergency Management Program occur, they are reviewed by the Program Steering Committee.

1.4.5. Management of Change (MOC)

The Emergency Management Program follows TOMS Element 5 Management of Change (see TOMS Manual, 009964063).

The purpose of the MOC Element Framework is to describe how change is managed to meet regulatory and business drivers. MOC provides a mechanism to document the proposal of a change, conduct a systematic review, assess the risks associated with approval or rejection of the change, document the approval or rejection of the change, and communicate the reasoning and requirements of the change to impacted employees.

1.4.6. Information Management

The Emergency Management Program controlled documents are maintained in accordance with the Controlled Document Library Standard (013841259) (see section 1.4.5 Management of Change).

All documentation related to exercises and emergencies, as well as other Program documentation (which are not controlled documents) must be retained for at least two years after the operation of a pipeline or a part thereof has been abandoned; this may include both paper and electronic records. Where the Records Retention Schedule EN (004464826) exceeds this requirement, the retention schedule shall be followed. At a minimum, emergency and exercise records must be maintained in accordance with section 4.10 of this Manual.

1.4.7. Compliance

The TC Energy Emergency Management Program endeavors to achieve 100% regulatory compliance in all program-related work. This Manual is developed specifically in accordance with the Canada Energy Regulator's *Onshore Pipeline Regulations* (SOR/99-294), the latest edition of CSA Z662, and the US Department of Transportation Pipeline and Hazardous Materials Safety Administration 49 CFR Parts 191, 192, 194 and 195 Regulations. Additionally, this Manual is in accordance with all known Federal, State, and Provincial regulations; however, if any portion of this Manual conflicts with applicable regulation in any country or for any TC Energy-owned asset, TC Energy employees shall follow all appropriate regulations and notify the Document Contact of the conflict through submission of feedback through the CDL. Finally, Industry Recommended Practices are reviewed and adopted where appropriate.

1.4.8. Incident and Nonconformance Management

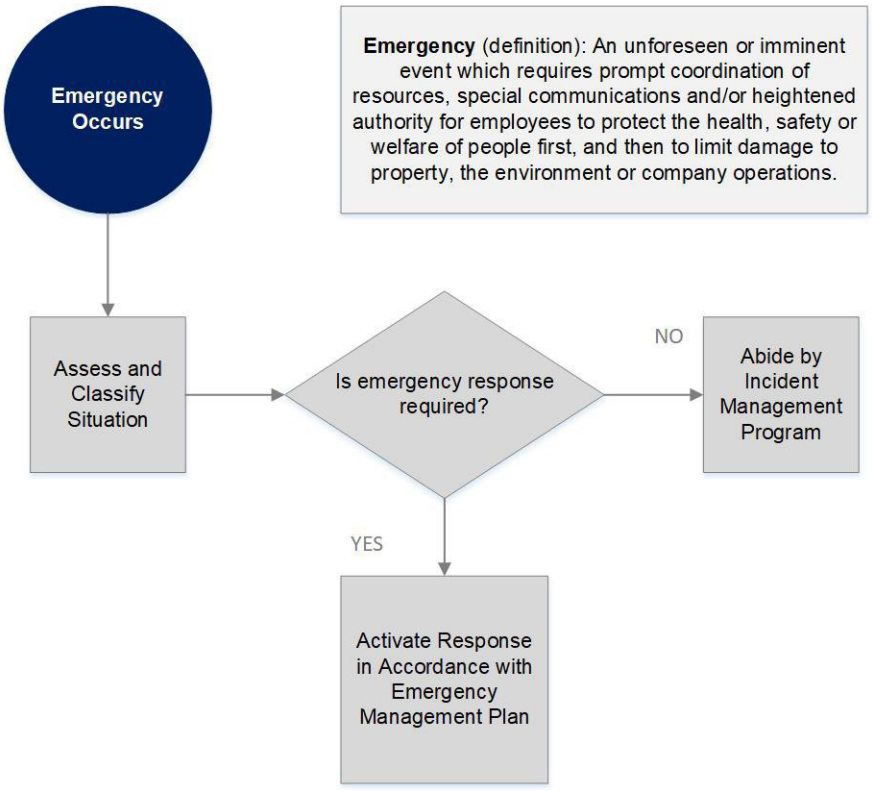
The Incident Management Program (IMP)

TC Energy's Incident Management Program (008945995) is the over-arching policy that defines how incidents are managedin TC Energy. The purpose of the policy is to ensure TC Energy satisfies its health, safety, and environmental commitment by applying a systematic, timely process for anticipating, preventing and managing unplanned or unforeseen events (including emergencies) which result or may result in undesirable consequences for the company, its personnel, and its stakeholders.

The Incident Management Program (IMP) ensures incident response, notification, investigation, documentation, follow-up and sharing of learnings is completed in a uniform, thorough and timely manner to promote continuous improvement and to help prevent recurrence of a similar incident. This process applies to all employees and contractors.

Note: All Incidents (Minor, Serious, Major, and Critical), including Near Hits, shall result in implementation of corrective and preventative measures to eliminate the risk of recurrence in accordance with the Incident Management Program.

The diagram below depicts the vital relationship betweenthe Incident Management Program and the Emergency Management Program.



1.4.9. Performance Monitoring, Assurance & Management Review

The Performance Monitoring Element requirements are established to enable the evaluation of performance and effectiveness of the Program.

Performance Monitoring

The Emergency Management Program monitors, measures, and analyzes performance as per the Establish and Monitor Goals, Objectives and Targets Process (008958835) and the Health, Safety, Security and Emergency Management (HSSEM) Assurance Standard (1014890682) which are reviewed and updated periodically.

The Emergency Management Program also reports annual performance measures to the CER as per the TC Energy CER Pipeline Performance Measures Process (CAN).

Assurance

The Emergency Management Program determines the degree to which requirements and expectations are met, and whether the Program is implemented and maintained appropriately with a means of continual improvement.

Assurance activities are planned, taking into consideration the status and importance of the Program elements, regulatory and legal requirements, and results of previous assurance activities.

The Program is audited on a minimum three year cycle per the Quality Assurance Audit Procedure (009835530).

Governance activities within the Emergency Management Program follow the Health, Safety, Security and Emergency Management (HSSEM) Assurance Standard (1014890682).

TC Energy tests the effectiveness of the Emergency Response Program through exercises and emergencies. For each, a debriefing shall be conducted to determine the actions necessary to reinforce successful outcomes and eliminate future unsuccessful outcomes. More information on the TC Energy debriefing process can be found in section 4 of this Manual.

Audits, Inspections, and Compliance Reviews

The Planned Inspection Program conducts Compliance Reviews within each Region and Facility. The following pre-Compliance Review activities prepare Regions and Facilities for the Planned Inspection. The Region or Facility Emergency Preparedness Coordinator (EPC) is required to complete the following tasks in preparation for a Planned Inspection:

- Organize opening and closing meetings.
- Provide an orientation to local hazards and emergency procedures.
- Provide a general facility orientation, including a tour of the Regional Emergency Operations Center (REOC) or Incident Command Post (ICP).
- Assist in gathering of emergency management documentation.

- Be available throughout the Planned Inspection for any other logistical concerns or questions raised by the reviewer.
- Prepare the following documentation for review:
  - Record of Tabletop and Field Exercises
  - Minutes of Emergency Preparedness Team (EPT) meetings
  - Listing of emergency service agencies contacted by the Region/Facility
  - Emergency Response Training Records
  - Emergency Response Plans
  - Record of incorporation of lessons learned from prior emergencies and exercises

The following people are recommended for participation in the opening and closing meetings:

- The Region/Facility EPC
- Representative(s) of the Region or Facility Management Team
- The Emergency Management Team SPOC and Regulatory Lead
- Any other Region/Facility employees who wish to attend

TC Energy affiliates are audited or inspected by Regulators, owners of systems we operate, and our partners in projects. These audits or inspections ensure compliance with regulations, Company policies and procedures and/or contractual agreements. The audits or inspections produce findings which result in action plans created by TC Energy affiliates to correct any issues identified through the audit process.

The following process helps ensure efficient use of resource availability when addressing audit findings. The process has several filters to help ensure activities meet regulatory, Company or contractual requirements. This process is separate from internal audits or compliance reviews but reflects the typical process for external audits or inspections.

External Audits and Inspections	
Phase	***Action***
1 – Draft report received from regulator. Audit/Inspection is completed, and draft report is emailed to the Regulatory Compliance representative.	Regulatory Compliance representative emails a copy of the draft report to the appropriate SME, Legal, and the Emergency Management Risk Lead and cc's the Manager, Emergency Management Manager and other relevant Managers and Directors.
2 - Confirm accuracy of draft report and develop timeline for implementation of any corrective/preventive actions.	All representatives ensure accuracy of draft report and develop timelines for implementation of any actions (where applicable). The Regulatory Compliance representative sends the draft report with any comments to the Regulator.
3 - Final Report received from regulator.	Regulatory Compliance representative receives a copy of the Final Report and circulates it to Legal and Emergency Management representatives, as well as relevant Managers, Directors and VPs. The Regulatory Compliance representative shall attach the report to the Regulatory Visit notification in SAP (previously created by the Regulatory Compliance representative) and monitors implementation of any actions.

4 - The Emergency Management Team reviews the list of regulatory compliance and contractual issues and determines which are Corporate-level vs. Region/Facility responsibilities.	The Emergency Management Risk lead will work with the EM Team to address any systemic issues related to the Emergency Management Programand will keep the Regulatory Compliance representativeand Region/Facility EPC apprised of the completion of each action item when the issue has been addressed relative to any regulatory timelines. The Emergency Management Risk lead will engage the applicable EM SPOC and Region/Facility/BU EPCs to address any Region/Facility/BU specific components of the Audit/Inspecti on report.
5 - The Region/Facility reviews audit findings and recommendations.	Region/Facility issues will be addressed by the Region/Facility EPC or designate. The Region, Facility or Business Unitaddresses any appropriate action items and keeps the EM SPOC and Regulatory Compliance representative apprised of the completion of each action item when the issue has been addressed relative to any regulatory timelines.
7 - Close-out of Audit or Inspection	Regulatory Compliance representative provides the Regulator with responses to each of the action items for their consideration. relative to any regulatory timelines.
	When confirmation is received from the Regulator that the audit or inspection has been closed, this confirmation will be forwarded to the SME, Legal and Emergency Management representatives as well as relevant Managers and Directors.

Management Review

The Emergency Management Program abides by the management review requirement in TOMS Element 9 Performance Monitoring, Assurance and Management Review (see TOMSManual, 009964063). The Management Review requirements are establishedto ensure the results of Program maturity
assessments, and Program performance measures andassurance activities are reviewed by management to assess the effectiveness of the Program. The outputs of Management Review are documented, communicated to the appropriate stakeholders, and considered for continual improvement.

A Management Review Presentation is developed, communicated to leadership, and records are retained by the Emergency Management Program to trackactions, continual improvement opportunities and any need for changes to the Program.

Continual Improvement, and Corrective and Preventative Actions

Continual improvement is driven by:

- Management Review of the Program; and

- Review of internal and external audit findings, governance activities, exercise debriefings to assure adherence with business processes, procedures, standards and regulatory requirements.

The activities enable the effective identification, evaluation, and implementation of continual improvement actions and is achieved by working towards defined goals, objectives, and targets. Incidents and nonconformance reports (NCR's) support the development of corrective actions or feed into initiatives.

When opportunities for improvement are identified, they are reviewed and addressed. If action is required to remediate an issue, such action is deemed either a corrective action or a preventative action.
Corrective actions, as defined in TC Energy's Nonconformance and Opportunity for Improvement Procedure (006261835), are:

1. Actions to eliminate the cause of a detected nonconformity or other undesirable situation.
2. The process of completing a root cause analysis, the subsequent correction of the root cause(s) that led to the nonconformance, and the follow up to confirm that changes were implemented successfully.

Preventative action is an activity completed to prevent the occurrence of potential nonconformities.

1.5. Emergency Management Website

All Emergency Management Program related forms, templates, and checklists are available on the Emergency Management Website. The website can be found via:

- 1TC homepage
- Fast Find > Departments > Emergency Management link

On the Emergency Management website, you will find information available on the following:

- Incident Command System and Incident Management Teams, including forms and role kits
- Emergency Operations Centers, including forms and role kits
- Incident Support Teams
- Equipment and Personnel available for emergency response
- Response Plans
- Program forms, templates, and TOPs
- Emergency Preparedness Coordinators for Field locations and Support Departments
- Hazard Identification and Risk Assessment Processes
- Emergency Management collaboration with the Public Awareness Program
- Training and Exercises
- Business Continuity
- Crisis Management

Note: The Emergency Management website is updated regularly to ensure that all internal stakeholders have all of the most up to date information when needed.

2. Hazard Identification and Risk Assessment

In accordance with the Risk Management Standard and Risk Management Procedure, each Business Unit (BU) is responsible to identify hazards (both from internal and external sources) which may result in an emergency affecting TC Energy's operations. The BU reviews the identified hazards through a risk assessment to determine their likelihood and the nature and scope of their consequence. Risk assessments are used to develop and/or amend appropriate barriers, such as emergency response plans, to mitigate impacts of the hazard.

2.1. Risk Management and the Emergency Management Program

Risk management is a key element in ensuring the ongoing safety, integrity, and reliability of TC Energy assets. Understanding risks through the execution of established risk management processes and incorporating these risks into the Emergency Management Program supports ongoing safe, reliable, and efficient emergency operations.

Risk management is a critical component of TC Energy's Emergency Management Program. The outputs or identified hazards and risks drive annual program Assurance Standards and influence the annual strategy on emergency response exercise locations and outreach activities. This process drives continual improvement opportunities both within the Emergency Management Program and the across the Company.

The following sections provide more detail on the risk management tools and activities used by the Emergency Management Program and the BUs during specific points in an asset's lifecycle; this includes the mandatory steps the Emergency Management Program takes (as mandated by the Risk Management Procedure) to interact with BUs and contribute to their organizational risk management efforts and objectives.

2.1.1. Risk Management Tools

The Risk Register and Hazard Barrier Inventory tools are used to communicate risk information in a comprehensive, prioritized, consistent manner so TC Energy can ensure identified risks are documented and addressed. This tool is designed to collect potential risk event information that has been identified and assessed in a consistent manner, then communicate the risk information to promote sound decision making and development of barriers (i.e., emergency response plans, training, equipment) to address the specifically identified risks. A common hierarchical classification system and review process is used in the Risk Register tool to promote fair comparison and clarity of risk information communication to enable decisions on direction of resources to manage risk.

Each BU updates their comprehensive Risk Register annually; the Risk Register serves as a repository for risk information affecting TC Energy Operations and Engineering. The Risk Register tool and analysis of the information in the tool provide a suite of metrics and reports to inform

decision-making.

Eachof the Emergency Management Program Single Points of Contacts (SPOCs) are responsible for the review of the applicable BU risk registryat least annually. Each SPOC must be invited to attendtheir respective BU risk management sessions toensure Emergency Management Program representation. Risk Registries are reviewedfor understanding local hazard and risk events that are applicable to the Emergency Management Program. Any hazardand/or risk events identified that apply to Emergency Management will be formally reviewed and compared to the mitigative barriers in place to clearly understand and assess anylevel of exposed risk.

The Hazardand Barrier Inventory (HBI) is used by the Emergency Management Program to map hazards, hazardous situations, and threats toprogram barriers designed tomitigate consequences of an emergencyevent. The hazards identified on the Emergency Management HBI are focused on worst-case scenarios, and therefore this inventory remains static. A single HBI has been developed and maintained by the Emergency Management Program, representative of all BU that fall within the scope of the Program. Each Emergency Management Program SPOC lead maintains the HBI to ensure all BU hazards, risk events and associated barriers are accuratelyreflectedfor that line of business. Emergency Management Program SPOCs are responsible for socializing the program HBI with their respective Emergency Preparedness Coordinators (EPCs) at least annually to ensure awareness of program level hazards, risks, and barriers. This collaborative approach helps ensure a fulsome understanding of the risk management procedure as it applies to the Emergency Management Program with all program internal stakeholder groups.

2.1.2. Risk Management by the Emergency Management Program during Major Project Development

Risk management includes hazard identification and risk assessment, and primarily occurs during the Major Project phase. Several activities are used to determine potential hazards and risks before a project is built and enters service as an operating TC Energy asset; for the Emergency Management Program these include:

- Legislative monitoring and compliance with regulatory requirements
- Reviewing Industry Best Practices applied to similar projects
- Conducting Stakeholder Engagement with Emergency Management stakeholders
- Emergency Management Program participation in design and prestart-up safety reviews

Since many hazards are related to the location and geography of a new asset, the Major Project phase is a critical time to identify hazards and risks and implement appropriate barriers. The Emergency Management Integration Activities during Major Projects (1010458911) flowchart describes how the Emergency Management Team is engagedearly in development of a new asset, ensuring hazard identification and establishment of barriers before an asset enters service. The Project performs hazard identification through the implementation of Design Reviews and Process Hazard Analyses. Process Hazard Analysis (PHA) is implemented as the more systematic method to identify and evaluate potential process hazards and provide recommendations to address process safety.

2.1.3. Risk Management by the Emergency Management Program during Operations

During operations, the most common means for hazard identification occurs within the BUs post exercise and/or emergency event. The BU EPC and Emergency Preparedness Team (EPT) may identify a new hazard during an emergency and/or exercise. This new hazard information will be formally reviewed during the debrief process which is required post exercise and event. The EM SPOC (or designate) shall participate in the final debrief for all Corporate Field exercises and emergencyevents. The Debriefing template will be populated containing a detailed description of the hazard and tasks that will be assignedfor representatives toensure management of the hazardwithin SAP. The Emergency Management Team will be listed as the TC Energy Representative on the EHSM entry as per guidelines outlined on the QRG for EHSM Exercise Documentation(1006366106) and therefore will receive an automatedemail notification that the EHSM entry has been logged. EPC/EPT engagement throughout the year is paramount to effectively manage risks within the Emergency Management Program as EPC/EPT members may raise awareness of other Emergency Management Program-related hazards that pose a threat to the organization during these meetings.

New hazards may also be identified by the BUs outside of an exercise or emergencyevent for an existing asset, andthe BU is responsible to identify any new hazards on their Risk Register. Other hazards may also be communicated by the BU's or other Mandated programs – even if they're not captured in a BU risk registry. Anexample of this is Highly Sensitive Receptors (HSRs) and Contributory Pipeline Segments (CPS) data. CPS locations are those where the pipeline system is located within a HSR (direct intersect), as well as pipeline segments that do not intersect, but could indirectly affect (indirect flow) an HSR. As required, Emergency Management reviews the program HBI to ensure any new hazards, such as new CPS data, are reflected; then the new hazardmust be communicated to the BU EPC/EPT to validate that current barriers are effectively managing the level of risk associated.

Internal Assurance/External Audit findings may alsoidentify new Emergency Management Program hazards that require formal review of program barriers to ensure risk tolerance is at an acceptable level within the organization. The Emergency Management Hazard Identification flowchart illustrates the inputs described above as the primary methods of hazard identification for the Emergency Management Program.

2.1.4. Emergency Managementand the RiskManagement Process – A Summary

Below is a summary of the Risk Management Procedure (008717335) as applied specifically to the Emergency Management Program.

Risk Management Procedure applied to the Emergency Management Program	
Step 1 Establish Context and Objectives	The purpose of Step 1.0 is to customize the Risk Management Procedure for a specific operational asset or new project. Business Units are primarily leading this step of the risk management procedure and are therefore accountable and responsible to define and document the context and objectives. In this context, the Emergency Management Program shall be consulted by the relevant BU to help ensure Emergency Management Program thresholds and risk events for that line of business are known and understood by the BU The Emergency Management Program however may also be responsible for executing Step 1.0 activities when developing new emergency response plans, updating existing plans or determining where annual exercise and outreach activities need to occur.
Step 2 Hazard Identification	Emergency Management is responsible to employ hazard identification techniques and activities that are appropriate to the context and objective of the risk analysis being performed, and to identify and document an inventory of these hazards and barriers currently in place. Emergency Management Program hazards are typically systemic in nature and apply across all lines of business and jurisdictions (Canada/US/Mexico). Within the Emergency Management Program there are primarily 4 consistent means of hazard identification: 1. Major Projects Design and Development - design reviews, HAZOPs, PSSR, stakeholder engagement. 2. Emergency Management Program Maintenance – post emergency/exercise debriefs, EPC/EPT engagement, internal assurance / external audit findings. 3. BU Operational Hazard Identification (existing assets) – BU specific hazards identified via Risk Register tool and/or other business unit supporting documents (i.e., HSRs, HCA's, MFL's). 4. Internal Assurance/External Audit findings – tier 3 audits, external federal and provincial/state regulatory audits. All program hazards shall be documented in the Emergency Management Program HBI tool. Any new hazards identified during any of the means described above, will be added to the existing program HBI.
Step 3 Risk Identification	The Emergency Management Program is responsible to identify risk event(s) (i.e., emergency events) that may prevent the organizati on from achieving the objectives and scope established in Step 1.0. Any new hazards or barriers that may be identified during Step 3.0 must be reflected in the program HBI.
Step 4 Risk Analysis	Business Units are responsible and accountable to conduct a detailed risk analysis to ensure comprehension of the nature of the risk and its characteristics (i.e., likelihood and consequences), including the level of risk. Emergency Management must be consulted during the risk analysis by the BU to ensure validity of the risk event's likelihood and its consequences. Accordingly, the Emergency Management Program is permitted to apply program specific tools such as the Integrated Risk Assessment Procedure (IRAP). TC Energy's IRAP consequence matrix is and shall be used to assess consequences in the seven categories covered by the matrix. The IRAP matrix includes both qualitative and quantitative consequence descriptors. Emergency Management will use internal data sources (SAP) for historical incident data of events that

	have occurred or had the potential to occur within the organizati on. If internal data is limited, external data will be sourced to support the analysis.
Step 5 Risk Evaluation	Emergency Management is consulted by the Business Units regarding prioritizing risks and determining whether there is a need to treat the risk identified. Risks are evaluated against organizati onal tolerance/acceptance. The Emergency Management Program establishes their risk evaluation and criteria in alignment with those established by the organization.
Step 6 Risk Treatment	Emergency Management and the BU share responsibility to determine risk treatment options for those risks which pertain to the Emergency Management Program. BUs consult with the Emergency Management Program when evaluating alternatives to treat and/or mitigate risks and select actions or determining if changes are required and during the development and execution of the risk management plan.
Step 7 Risk Monitoring and Reporting	Emergency Management monitors the risk treatment and is consulted by the BU if changes are required. The TOMS Element Lead shall develop a Risk Summary in consultation with Emergency Management.

TC Energy and its service lines face an ever-changing set of hazards and threats. The Risk Management Standard obligates BU leadership, program owners and project leaders to identify their hazards/threats and subsequent risks. The TC Energy Hazard Classification Table can be found with the TOMS Risk Management Procedure.

Risk of damage to TC Energyaffiliate owned assets comprise much of the risks addressedin emergency response plans. These risks should be assessed to determine whether the hazard should be addressed in Tier 2 Emergency Response Plans.

2.2. Impacted StakeholderConsiderations

Any emergency involving a TC Energy asset has potential to impact external stakeholders and rightsholders including local emergency responders, industry partners, government entities, privately held companies, and the public. In an emergency, TC Energy shall consider impacts to external stakeholders and rightsholders regarding each of the following functions.

2.2.1. Transportation

An unplanned event involving a TC Energy asset could have transportation related implications through either:

- Impact to transportationinfrastructure (i.e., roadways, railways, airspace/airfield, pipelines); or
- Shortage of transportationresources.

Impacts totransportation may require TC Energy to support external stakeholders and rightsholders with consideration to the following:

- Aviation/airspace management andcontrol,
- Transportationsafety,
- Restoration/recoveryof transportationinfrastructure,
- Movement restrictions, and

- Damage andimpact assessment.

TC Energy shall consult public officials when airspace and public transportation infrastructure are impacted.

2.2.2. Communications

Interruptions or strain to communication infrastructure and resources following an emergency involving a TC Energy asset mayrequire TC Energy to support external stakeholders and rightsholders with consideration to the following:

- Coordination with telecommunications and information technology industries, and/or
- Restorationandrepair of telecommunications infrastructure.

2.2.3. Public Works, Utilities, and Energy

Damage to public works and/or private utilities infrastructure following an emergency involving a TC Energy asset mayrequire TC Energy to support external stakeholders and rightsholders with consideration to the following:

- Infrastructure protection andemergency repair,
- Infrastructure restoration,
- Engineering services and construction management,
- Emergencycontracting support for lifesaving and life-sustaining services, and/or
- Energy forecasting andavailability.

Such support may be coordinated through TC Energy's construction services group but will likely be augmented with contractedresources. All such efforts shall be coordinated directly with the effected utility owner, cooperative, or municipality.

2.2.4. Search & Rescue

TC Energy personnel are not trained in Search and Rescue operations. However, TC Energy shall support public and private emergency response resources at their request and shall obey all directives of emergencyservices to assist if searchand rescue operations are required as a result of a TC Energy emergency.

2.2.5. Emergency Management

An emergency involving a TC Energy asset will require TC Energy to coordinate and collaborate with external stakeholders and rightsholders tomanage the emergencywith consideration to the following:

- Coordinationof incident management andresponse efforts,
- Issuance of missionassignments,
- Resource and human capital,
- Incident actionplanning, and

- Financial management.

Such support shall be coordinated through TC Energy's EmergencyManagement Program.

2.2.6. Mass Care, Housing, HumanServices, Health and MedicalServices

Emergencies involving TC Energy assets have potential to injure and displace external stakeholders and rightsholders. Inthese cases, TC Energyshall work collaboratively with public officials to provide required mental and physical health care and housing to those impacted. TC Energy will evaluate the potential impacts of each individual incident to determine the degree and means through which these services will be provided.

2.2.7. Agriculture

An emergency involving a TC Energy asset could have agriculture-related implications through damage to farmland, pastures, and livestock or damage to plant/food processing facilities. Impacts to agricultural resources mayrequire TC Energy to support external stakeholders and rightsholders with consideration to the following:

- Food safetyandsecurity;
- Restoration of agricultural lands and/or restitutionfor damages to agricultural lands, infrastructure, or livestock;
- Natural and cultural resources and historic properties protection and restoration; and
- Safetyand well-being of household pets.

2.2.8. Public Safety and Security

An emergency involving a TC Energy asset may require TC Energy to support external stakeholders and rightsholders with consideration to the following:

- Facility andresource security;
- Security planning and technical resource assistance;
- Public safetyand security support; and
- Support to access, traffic, and crowdcontrol.

Such support may be coordinated through TC Energy's Corporate Securityteam but will likely be augmentedwith contracted public or private security consultants and resources.

2.2.9. Evacuationsand/or Shelter-in-Place

Several hazards mayrequire TC Energy personnel to evacuate their place of work or seekshelter at their place of work to ensure safetyand security are preserved. In all cases, TC Energy personnel shall be prepared to provide a roster of all personnel on site if any emergencyrequires evacuation of a TC Energy facility. TC Energy personnel are responsible for completing accountability checks (i.e. roll call) at a designated muster point following any evacuation.

TC Energy may initiate evacuation of TC Energy operated facilities. However, local emergency responders must initiate and execute evacuation of non-TC Energy facilities. In this case, TC Energy may recommend evacuation and assist local responders upon their request.

2.2.10. Community Information

An emergency involving a TC Energy asset will likely require the Company to provide information to the public regarding the event; such information requirements may include the following:

- Emergency public information and protective action guidance,
- Media and community relations,
- Political and international affairs, and
- Indigenous affairs.

All communications prepared for public distribution shall be coordinated through TC Energy's Public Affairs and Communications group. The Public Affairs and Communications group shall collaborate with the Incident Management Team to determine the best venue for distribution of information; some options are listed below:

- Reception Centers (described in greater detail in the Incident Facilities section of this Manual),
- Media releases,
- Door-to-Door notification, or
- Site tours for dignitaries and/or the public.

2.3. Business Continuity Planning

Business Continuity Planning (BCP) is a function of TC Energy's Emergency Management Program. BCP is used to facilitate a proactive response to real or potential threats of business interruption. It identifies the impact of potential losses, develops viable recovery strategies and plans and ensures continuity of critical business processes and services. The BCP process also develops procedures that enable TC Energy to effectively respond to disruptive events and ensure that critical business functions can continue.

BCP is governed by the Emergency Management Team and this Manual. Each of TC Energy's Business Units/Business Groups are engaged as part of the planning process for BCP with required roles outlined below. More detailed guidance for Business Unit/Business Groups is provided through the Business Continuity Companion Document.

2.3.1. Emergency Management Program Steering Committee

BCP is overseen by the Emergency Management Steering Committee, as described in Section 1 of this Manual.

2.3.2. Business Continuity VP Sponsor

Each of TC Energy's Business Units/Business Groups is responsible to assign a Vice President sponsor responsible for:

- Appointing a Business Continuity Lead (BCL) or Team. This may be one or more subject matter experts that will be responsible for implementation of BCP within the Business Unit/Business Group.
- Reviewing and approving the Business Impact Analysis (BIA) and critical processes within the Business Unit/Business Group.

2.3.3. Business Continuity Lead (BCL)/Team

Vice President Sponsors are responsible to assign a minimum of one BCL within their Business Unit/Business Group. VP Sponsors may assign multiple BCLs as a Business Continuity Team to represent functional areas within a Business Unit/Business Group, but a primary Lead must be identified. The BCL/Team are responsible for:

- Developing the Business Unit/Business Group's annual BIA to identify critical processes
- Developing and maintaining of Business Continuity Plans (BCPs) or Disaster Recovery Plans (DRPs). *Note: DRPs are applicable to IS systems only.*
- Leading the Business Unit/Business Group in annual BCP training and/or exercises

Given this scope of responsibility, each Business Unit/Business Group BCL or Business Continuity Team is supported by subject matter experts in Emergency Management and Risk Management.

2.3.4. Emergency Management Single Point of Contact (EM SPOC)

The Emergency Management SPOC supports the BCL and BC Team in implementation and maintaining the BCP function. The Emergency Management SPOC is responsible for:

- Facilitating BCP workshops and training for BCLs/Teams as needed
- Supporting BCLs/Teams in development of BIAs, BRPs/DRPs, training & exercises
- Managing centralized BIA data and critical process listings

2.4. Crisis Management

Crisis Management is a strategic system that sets out a framework and a management structure to effectively manage an event which has the potential to greatly affect the operations and credibility of the Company. Crisis management includes anticipating, preventing, preparing for, and responding to a crisis which falls outside the normal Company management structure. This enables the Company to manage a crisis more effectively with a minimal amount of distraction, while at the same time affording other senior Company executives the freedom to continue with their normal daily business responsibilities.

At TC Energy, a Crisis Management Team (CMT) has been appointed to ensure an organized team response is mounted, as the situation dictates, and to assume responsibility in looking after the best interests of the Company and its employees. The CMT is designed to complement the normal operations of the Company, its operational business units, and the current Emergency Response Plans (ERPs).

In all incidents and emergencies where an Incident Support Team (IST) is activated, the IST is responsible for determining whether the incident meets the thresholds of a Crisis. If an incident is deemed a Crisis, the IST Leader or Manager, Emergency Management shall request the activation of the CMT to run in parallel with the Emergency Management function.

3. OrganizationalControlofEmergencies

When an emergencyoccurs, the chain of command and communication lines deviate from that during routine work. This section describes how TC Energy emergency response personnel transition from the standard organization to implementation of the Incident Command System (ICS), which TC Energy has adopted as its system of organizational control during emergencies.

3.1. Standard Organization

TC Energy's standard organizational structure applies a single chain of command, unity of leadership (each employee has only one leader), and managed span of control (leaders have a limited number of direct reports). In general, TC Energy emergencies have greatest direct impact on a specific Operational Area, then Regionof Operations and overall a line of business. Each of these Regions eventually report to one of the following Executive/Senior Vice Presidents:

- Canadian Natural Gas Pipelines
- US & Mexico Natural Gas Pipelines
- Liquids Pipelines
- Power and Storage

All Executive/Senior Vice Presidents of the lines of business listedabove report to the Chief Operating Officer, and ultimately the President and Chief Executive Officer of TC Energy.

3.2. Emergency Organization

In an emergency, the structure of leadership and decision making is alteredfrom the standard organizational structure. The Incident Commander (IC) is the person responsible for all aspects of an emergencyresponse including the development of incident objectives, managing all emergency operations, and applying resources. The IC has responsibility for all persons involved; this is a foundational element of the Incident Command System (ICS) which TC Energy has adopted for on-scene incident management of all emergencies.

As in TC Energy's standard organization, ICS applies a single chain of command, unity of leadership, and a managedspan of control. However, roles and reporting relationships can change to alignwith the principles of ICS.

In jurisdictions where variants or alternates to ICS are used, TC Energy will be aware of the differences and work the ICS process in unison with the alternate management system.

- Key Differences Between ICS and the Incident Management System (IMS) (1009943581) are demonstrated in a stand-alone document

TC Energy has many resources which may be used to support incident management, but all resources may not be on-scene or within the ICS structure. The following is a list of such resources:

- Incident Management Team
- Regional Emergency Operations Center
- Corporate Emergency Operations Center
- Incident Support Team
- Crisis Management Team

3.2.1. Company First Responder

The Company First Responder is TC Energy's first official representative at the emergency site and is the initial IC. The Company First Responder may be a TC Energy employee, mutual aid partner, contractor or anyone representing the Company at the site of an emergency.

Company procedures provide for one individual to assume command and control from the beginning of emergency operations, usually the Company First Responder to the scene. The Company First Responder will take whatever actions are possible to mitigate the consequences of the emergency within the boundaries of his/her training and will communicate the details of the emergency to the Control Center or Control Room.

In all instances, the Company First Responder assures his/her safety and the safety of anyone in the immediate vicinity of the incident. In addition, the Company First Responder completes actions as prescribed in the appropriate Company First Responder Checklist.

3.2.2. Incident Management Team (IMT) Continuum

An Incident Management Team (IMT) is a person or group of people who respond to emergencies to set objectives, manage resources and logistics, and otherwise support personnel executing the specific
tactics to protect life safety, then stabilize and resolve the emergency. At TC Energy, all IMTs use ICS to manage emergencies.

TC Energy recognizes the following three levels of Incident Management Teams:

1. Initial Responders
2. Regional Incident Management Teams
3. Incident Management Assistance Teams (IMATs)

Once any level of IMT is established, the following response strategies are initiated:

- Ensure the safety of all responders and the public.
- Continuously reassess the situation and status of the emergency.
- Define the issues and prioritize the problems.
- Clarify response and secondary goals; establish objectives, strategies and tactics.
- Identify and request resources required.
- Develop an Incident Action Plan.
- Schedule briefings for supporting EOCs.

Once any level of IMT is established, the following four overarching emergency response priorities are implemented:

TC ENERGY PRIMARY EMERGENCY RESPONSE PRIORITIES (L.I.P.S.)	
1.	Life Safety
2.	Incident Stabilization
3.	Preservation of Property & Environment
4.	Stakeholder Communication

Detailed descriptions of IMT Roles and Role Kit contents for each role can be found on the 1TC Emergency Management Website.

Initial Responders

The Initial Responders are the first group of personnel who arrive at the scene of an emergency to set objectives and manage response strategies. The Initial Responder may be solely the Company First Responder or may include emergency services until additional resources arrive.

In hazardous spill situations, the initial response team, under the direction of the IC, will take immediate, defensive actions to:

- Stop the leak
- Contain the spilled substance
- Initiate cleanup procedures within practicalities of the situation and within the limits of the team member's emergency response training. (If necessary, outside contractors may be mobilized to help with the spill cleanup.) This response may include, but not be limited to:
  - Construct temporary dikes around the spill using dirt, sand, or manufactured booming equipment
  - Cover storm drains with plastic sheeting
  - Shut down sump pumps
  - Isolate equipment.

For events such as fires, explosions, security issues, injuries and/or employee illnesses, notifications will be made to appropriate local or regional emergency services.

At no time shall any employee endanger his/her safety while responding to an emergency.

For small incidents, or for the initial stages of an event, the five major Incident Command response activities may be managed by the IC and a few available staff members. In these circumstances, the IC and his/her staff will assume multiple duties within the response management structure. For small scale emergencies, having staff fill multiple roles may be appropriate and cost effective.

Initial Responders	
Organizational Composition	The Initial Responders typically include Company First Responder and other local personnel who work in close proximity to the incident.
Mobilization Criteria	Mobilization of the Initial Responder occurs one of three ways: 1. Company Personnel come upon an emergency event, make proper notifications, and initiate incident management. 2. Control Center identifies or is notified of a potential emergency and dispatches a Company First Responder. 3. A TC Energy Office is notified of an emergency and contacts Field Personnel to investigate or confirm the incident, then initiate incident management.
Demobilization Criteria	The Initial Responder is only demobilized in two cases: 1. A Regional Incident Management Team (IMT) is dispatched, and Command is transferred. (Note: in some cases, an IMT will be dispatched, and Command transferred, but the IC has deemed the Initial Responder(s) a necessary part of the ongoing management structure; in this case, the Initial Responder will not be demobilized, but will be delegated another response function.) 2. The incident is resolved, and Incident Management is no longer required.
Scope of Responsibilities	This team is expected to execute the First Responder Checklist, maintain the ICS-201 Form and participate in ongoing communication with internal and external stakeholders and rightsholders (within the policies of TC Energy). This team may accept guidance from the supporting EOC in decision making; together the First Responder and EOC shall conduct contingency planning as required by the incident. Pre-defined emergency response priorities (from which incident objectives are drawn) for this team are as follows: 1. Ensure the life safety of responders and the public for the duration of the incident. 2. Stabilize the incident; minimize potential for an increase in incident size or severity. 3. Property and environment preservation. 4. Stakeholder communication.
Training and Qualifications	The initial responders may be entirely comprised of Company First Responders.

Regional Incident Management Teams

A Regional Incident Management Team (IMT) enables rapid response by TC Energy Business Units to emergencies by systematically identifying, training, and maintaining competency of personnel assigned tothe Regional IMT. Establishment of the Regional IMAT should be accomplished in accordance with the Regional IMT Development and Maintenance Work Aid (1019632577).

TC Energy Incident Management Assistance Teams

If the event is of a significant size, the initial response organization may be expanded. The degree to which the organization expands will depend on the size and severityof the emergency. The decision to augment the initial response team andthe Regional Incident Management Team, with an Incident Management Assistance Team (IMAT), in full or in part, is the determination of the impacted Business Unit.

The following criteria are used by the Business Unit in determining whether to augment the current response organization:

- The incident is beyond the capabilities of the current response resources.
- The potential duration of the incident will exceedcurrent resource endurance.
- The incident poses significant human resource, political, economic and/or environmental implications.
- It is decided that augmentation of the site team is in the best interests of the Company.

If additional resources are required, the Business Unit, in coordination with the REOC and CEOC will direct the deployment of an IMAT, as selected positions or a whole team. Special expertise such as stakeholder communications and Security personnel will assist in the response from the CEOC or will be sent to the emergency site as part of the IMAT, as needed. Additional response support may be drafted from third parties who are under contract with TC Energy.

The TC Energy Incident Management Assistance Teams (IMATs) are the highest level of incident management recognized by TC Energy. These teams may either assume Command from the previous Incident Management Team or join the previous Incident Management Team to assist with current incident management activities.

Incident Management Assistance Team	
Organizational Composition	The TC Energy IMATs may be comprised of all levels of TC Energy personnel, up to and including Executive Leadership.
Mobilizati on Criteria	IMATs are mobilized by leadership from the impacted business unit.
Demobilization Criteria	IMATs will demobilize once the impacted business unit has determined ongoing command and control of the incident.

Scope of Responsibilities	This team shall manage the incident using ICS. The scope of responsibilities is dependent on the incident itself. Some incidents may only require an Initial ICS 201 briefing packet development. Some may require an enhanced 201 packet. While some may require the formal development of Incident Action Plans (IAP). A formal Incident Action Plan (IAP) is expected from this team no later than the second Operational Period where they are providing on-site assistance. Through this process, the IMAT will assist in the development of contingency plans for abnormal events that may occur during Emergency situations.

More information on the IMATs, including their training and qualification requirements is documented on the IMAT Strategy Document (009097314).

3.2.3. Emergency Operations Center Teams

At TC Energy, an Emergency Operations Center (EOC) is a coordination venue through which leadership and numerous support departments cancollect information and offer assistance to the impacted business unit. TC Energy recognizes three types of EOCs:

- Regional EOC (REOC)
- Corporate EOC (CEOC)
- Mexico EOC (Single, combined EOC)

All TC Energy EOCs can be established in a pre-determined physical location or virtually, through telephone or video conference. A Virtual EOC is a non-physical gathering of leaders or support department personnel to collectively gather and share information about the emergency. Regardless of whether an EOC is established virtually or at a physical location or both, the structure and function remain the same.

Establishing a virtual EOC serves two purposes:

- Initial gathering and sharing of information between the IMT and EOCs after regular business hours (5:00pm to 8:00am) or when other circumstances (i.e., travel restrictions, severe weather, EOC facility is inaccessible) prohibit the EOC Manager from establishing the EOC at a particular physical location.
- Determining which Support Departments need to physically attend the EOC and continue their support roles.

CEOCs

TC Energy recognizes three CEOCs; one in each country of operations:

- Calgary CEOC located at the TC Energy Corporate Headquarters in Calgary, AB
- Houston CEOC located at the TC Energy Center in Houston, TX
- Mexico EOC located at the TC Energy Office in Mexico City, Mexico (Note: The MX EOC is combined REOC/CEOC).

The CEOCs have the same responsibilities and authorities as one another, and only one CEOC is activated for an incident. Participants from other CEOCs may participate virtually with the activated CEOC and are considered members of the active CEOC.

In most cases, the CEOC locatedwithin the same country where the emergencyoccurs is the CEOC to be activated during emergency response (ex. Canadian Gas Storage emergencies activate the Calgary CEOC, US Gas Pipeline emergencies activate the Houston CEOC; Mexico Gas Pipeline emergencies activate the Mexico City CEOC). The only time this is not true is for emergencies on the Keystone Pipeline System in the US; all Keystone Pipeline System emergencies are support by the Calgary CEOC.

TC Energy is committed to informing all potentially affected Support Departments when an emergency has been detected. When an emergency has been detected, all TC Energy Support Departments are responsible to complete the following actions:

- Notify their leaders
- Notify any external agencies identified in their Profile of Service or Functional Plan
    - Notify Local Authorities if the Regionor Facility has not alreadydone so.
- Take any additional actions as described in their department's Functional Plan.

After initial notifications are complete, Support Departments may determine they are not affected and do not have a role in the response; if this decision is corroborated by the IC or CEOC, the Support Department maydecide to deactivate.

Persons designated as CEOC Managers-on-call are designated by Human Resources as safety-sensitive and must adhere to the Drug and Alcohol Policies specific to a safety-sensitive position. The EPC and the manager of a designated EOC Manager are responsible to ensure this designation appears in their HR on-line profile and to remove it when no longer applicable. EOC Managers are accountable to ensure that EOC personnel are fit-to-work in accordance with TC Energy's Alcohol and Drug Policy EN (003743046).

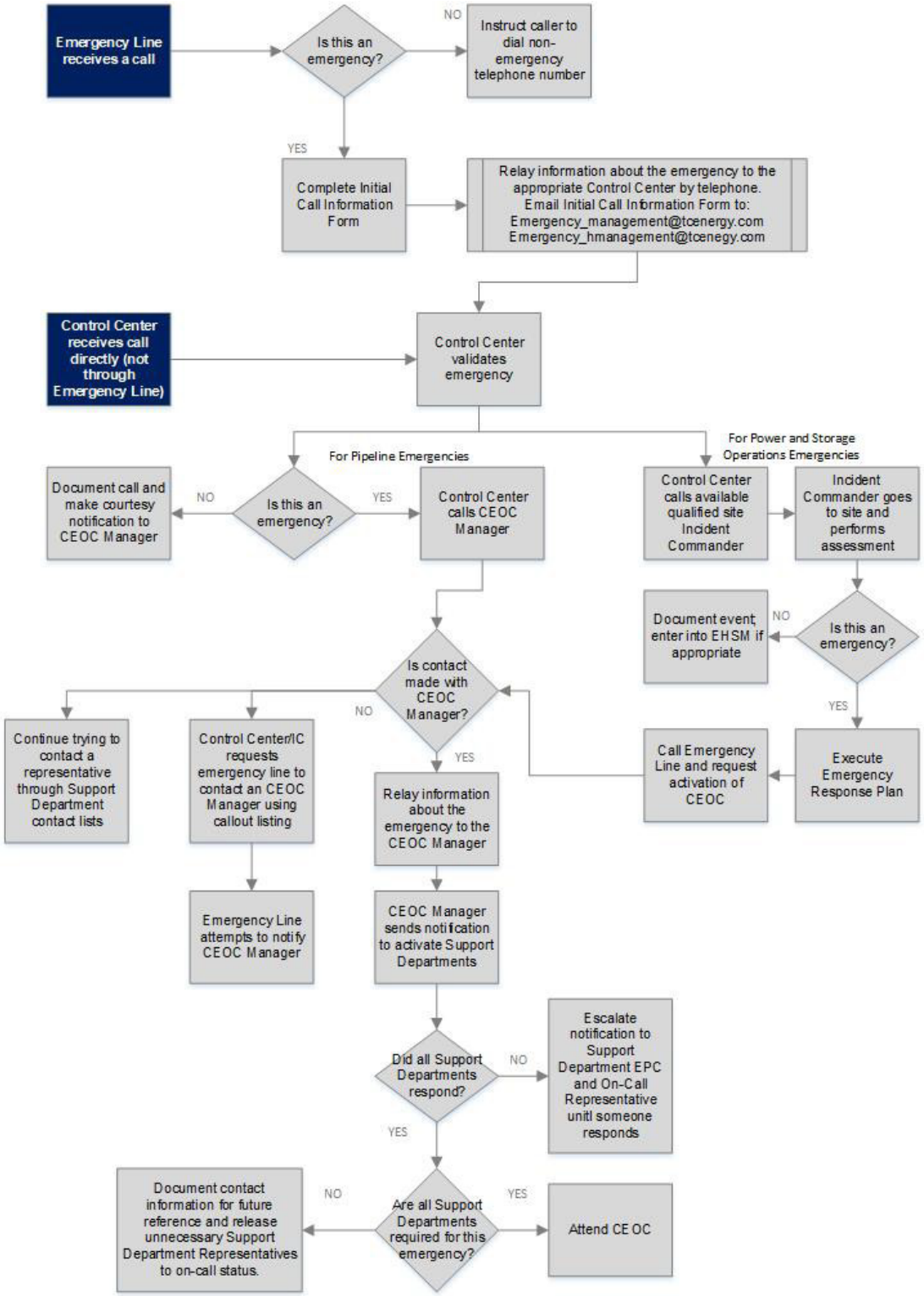
A CEOC may be activatedfor any event meeting the definition of emergency as stated in this manual. An activation brings together the resources and emergencyresponse plans of several support departments. These emergencyresponse plans include both internal and external notifications, activation of third-party resources, and public announcement of the emergency. Misuse or inappropriate activations could lead to over-response (broad range of notifications and excessive response allocations) as each department's implementation of their emergency response plan and pre-determined response actions may not be appropriate given the severity of the situation. There are three ways a CEOC maybe activatedto ensure a controlled and appropriate response to emergencies.

- *CEOC activated by Control Centers:* The Control Centers are responsible to validate any operational emergency having significant impact to the health and safety of the public (including employees and contractors), the environment, property, and company operations. During an emergency the affected Control Center communicates with the CEOC Manager, who in turn activates the CEOC team. This is a "controlled activation", meaning the situation has been assessedand appropriately moved to the next step of response.

- *CEOC activated by the Incident Commander:* The IC makes the decision regarding the need to activate the CEOC basedon the type and severityof the incident. If an incident that meets the criteria of an emergency incident, the IC will initiate the CEOC activation process. Once the connection withthe CEOC Manger is made, the IC and CEOC Manager will determine if there is a need to activate the CEOC and to what extent.

- *CEOC activated by Incident Support Team (IST):* The Emergency Management team representative assisting the IST may help the IST Leader determine if a significant incident warrants the activation of the CEOC. The CEOC is activated by the Emergency Management team member at the request of the IST Leader.

The diagram on the next page depicts the process completed by TC Energy to activate a CEOC when an emergencyimpacts a TC Energy asset.


Emergency Line receives a call
Is this an emergency?
NO
Instruct caller to dial non-emergency telephone number
YES
Complete Initial Call Information Form
Relay information about the emergency to the appropriate Control Center by telephone. Email Initial Call Information Form to: Emergency_management@tcenergy.com Emergency_hmanagement@tcenegy.com
Control Center receives call directly (not through Emergency Line)
Control Center validates emergency
For Pipeline Emergencies
For Power and Storage Operations Emergencies
Document call and make courtesy notification to CEOC Manager
NO
Is this an emergency?
YES
Control Center calls CEOC Manager
Control Center calls available qualified site Incident Commander
Incident Commander goes to site and performs assessment
Document event, enter into EHSM if appropriate
NO
Is this an emergency?
YES
Is contact made with CEOC Manager?
NO
YES
Continue trying to contact a representative through Support Department contact lists
Control Center/IC requests emergency line to contact an CEOC Manager using callout listing
Relay information about the emergency to the CEOC Manager
Call Emergency Line and request activation of CEOC
Execute Emergency Response Plan
Emergency Line attempts to notify CEOC Manager
CEOC Manager sends notification to activate Support Departments
Did all Support Departments respond?
NO
Escalate notification to Support Department EPC and On-Call Representative until someone responds
YES
Document contact information for future reference and release unnecessary Support Department Representatives to on-call status.
NO
Are all Support Departments required for this emergency?
YES
Attend CE OC

As requested by the IMT or REOC, the CEOC provides:

- Overall incident support coordination,and
- Operational andprocedural support.

The CEOC Manager facilitates discussion within the CEOC and ensures the proper resources are available to address the emergency. Each Support Department will determine the extent of their necessary involvement in the emergencyand be prepared to respond. Not all roles must be activatedfor every emergency. The CEOC may provide support to the REOC or IMT by completing external notifications and proposing strategies for response.

A CEOC may be activatedand function virtually, physically or a combination of both; however, only one CEOC is physically activatedfor an emergency. Some of the members may participate virtually if they are unable to be physically present in the activated CEOC. For example:

- US Legal representatives maychoose to physically work from the Houston CEOC room in support of the physical activation of the Calgary CEOC for a USliquids pipeline emergency.
- A key member of the Houston CEOC team who is travelling may dial into the HoustonCEOC physical activation.

In both cases only one CEOC is officially active, but the CEOC team includes everyone present and virtual. If the CEOC Manager deems it necessary to establish a physical CEOC, the following describes the requirements and actions for this facility.

Each CEOC has a backup center to allow for unforeseen circumstances that do not allow for attendance at the primary CEOC. This backup EOC will be adequately equipped with technology to provide resources for each Support Department tosupport activities at the emergency site. These circumstances include but are not limited to:

- Power outages
- Natural disaster in area of primary EOC (e.g., tornado, hurricane)
- Building not accessible (e.g., fire, flood)

The CEOCs will work together to ensure TC Energy has adequate coverage for support and strategic direction to entity-specific operations. At any time when one of the CEOCs is not functional due to extenuating circumstances, a call is required between the CEOC Managers on-call to transfer responsibility to the other party. Any transfer of responsibility between CEOC's must be followed up with an email to the Emergency Management Teamadvising of the transfer.

Calgary EOC

Calgary Emergency Operations Center	
Organizational Composition	Organizational composition of the Calgary CEOC depends on the assets affected; specific support departments which shall be represented are listed in the next table in this Manual.
Mobilizati on Criteria	The Calgary CEOC is mobilized by the Control Center. Upon notification, the Calgary CEOC manager will notify the Support Departments pre-determined
	(as outlined below) based on the line of business impacted by the Emergency via the automated notification system (Everbridge).
Demobilization Criteria	The Calgary CEOC shall only be demobilized when such action is agreed upon by the IMT, REOC Manager, and CEOC Manager. Any of these groups may propose demobilization of the Calgary CEOC if the incident does not require the level of support being provided from the CEOC. Support Departments no longer having an active role in the response, even if the CEOC remains active, may be released, but will remain on call. Support Departments are required to validate their demobilization with other Support Departments and the CEOC Manager.

Scope of Responsibilities	Responsibilities of the Calgary CEOC may include, but are not limited to the following: • Monitor Emergency Conference Bridge. • Activate the CEOC staff as required by the incident. • Advise Support Departments to make their internal notifications. • Chair/coordinate the activities of the support departments within the CEOC. • Contact the REOC Manager (or Incident Commander if the emergency is at a power or gas storage facility) to establish communications with the site. • Provide technical recommendations on incident management principles, procedures, and regulatory reporting. • Identify potential contingencies and conduct contingency planning for abnormal conditions that may occur during an emergency in support of the IMT. • Be aware of hours worked and ensure relief for self and others working in the CEOC. • Provide administrative assistance for the team with in the CEOC. Debrief the Emergency • Debrief Support Departments and CEOC Managers • Revise the Emergency Management Program as required. • Prepare after-action report on emergency event. • Ensure emergency documentation is completed and filed appropriately. • Communicate learnings. Each Support Department representative is responsible to conduct a debrief with their on-call staff members after the CEOC has stood down. This will provide those who weren't directly involved with some exposure to the event while collectively sharing the lessons observed.

Calgary CEOC Support Department Participation
For all assets supported by the Calgary CEOC: • Administrative Support • Stakeholder Relations and Communications

• Corporate Security • Environment Land and Indigenous Relations • Human Resources • Legal (will engage Insurance Risk if required) • Health & Safety (CA) or Health/Safety/Environment
Natural Gas Pipelines (in addition to those listed above) • Gas Control Center • Customer Services • Technical Services (will engage Aviation if required) • Regulatory Compliance
Liquids Pipelines (in addition to those listed above) • Oil Control Center • Land Management • Oil Scheduling • Technical Services • Regulatory Compliance
Power and Gas Storage Facilities (in addition to those listed above) • Aviation (will be engaged by the CEOC Mgr. if Aviation assistance is required)

Houston EOC

Houston Emergency Operations Center	
Organizational Composition	Organizational composition of the Houston CEOC depends on the complexity and the possible incident escalation of a US Natural Gas Pipeline Emergency or a hurricane event; specific support departments which shall be represented are listed in the next table in this manual.
Mobilization Criteria	The Houston CEOC is mobilized by the Control Center; upon notification, pre-defined support departments are activated to support the incident as shown in the next table. The Houston CEOC is typically only mobilized for Hurricane events and Natural Gas Pipeline System emergencies in the US. An automated notification system (Everbridge) is programmed to notify pre-identified Support Departments. Support Departments no longer having an active role in the response, even if the Houston CEOC remains active, may be released, but will remain on call. Support Departments are required to validate their demobilization with other Support Departments and the CEOC Manager.
Demobilization Criteria	The Houston CEOC shall only be demobilized when such action is agreed upon by the Incident Management Team, REOC Manager, and CEOC Manager. Any of these groups may propose demobilization of the Houston CEOC if the incident does not require the level of support being provided from the CEOC.
Scope of Responsibilities	Responsibilities of the Houston CEOC may include, but are not limited to the following: • Monitor Emergency Conference Bridge • Activate the Houston CEOC staff as required by the Incident. • Advise Support Departments to make their internal notifications.

	• Chair/coordinate the activities of the support departments within the Houston CEOC. • Contact the REOC Manager to establish communications with the site. • Provide technical recommendations on incident management principles, procedures, and regulatory reporting. • Identify potential contingencies and conduct contingency planning for abnormal events that may occur during an emergency in support of the IMT. • Be aware of hours worked and ensure relief for self and others working in the EOC. • Provide administrative assistance for the team with in the CEOC. Debrief the Emergency • Debrief Support Departments and EOC Managers • Revise the Emergency Management Program as required. • Prepare an after-action report on emergency event. • Ensure emergency documentation is completed and filed appropriately. • Communicate learnings. • Each Support Department representative is responsible to conduct a debrief with their on-call staff members after the CEOC has stood down. This will provide those who weren't directly involved with some exposure to the event while collectively sharing the lessons observed.

Houston CEOC Support Department Participation
For all US Gas Pipeline assets: • Aviation • Corporate Security • Environmental Services • Gas Control Center • Health & Safety • Human Resources • Information Systems • Land Management • Legal • Stakeholder Relations & Communications • Regulatory Compliance • US Technical and Operational Services

Mexico EOC

Mexico Emergency Operations Center	
Organizational Composition	The Mexico EOC supports emergencies impacting Mexico NaturalGas Pipelines. The Mexico EOC consists of core and secondary corporate and regional support departments.
Mobilizati on Criteria	The Mexico EOC Manager is mobilized by the Control Center. Upon notification the Mexico CEOC manager determines the level of mobilization, staffing, and support required for the incident (i.e., core or secondary EOC members, or both).
Demobilization Criteria	The Mexico EOC shall only be demobilized when such action is agreed upon by the Incident Commander and EOC Manager. These groups may propose demobilization of the Mexico EOC if the incident does not require the level of support being provided.
Scope of Responsibilities	Responsibilities of the Mexico EOC may include, but are not limited to the following: • Monitor Emergency Conference Bridge/TEAMS • Activate the EOC staff as required by the Incident. • Advise Support Departments to make their notifications. • Chair/coordinate the activities of the support departments within the EOC. • Contact the Incident Commander to establish communications with the site. • Provide technical recommendations on incident management principles, procedures, and regulatory reporting. • Identify potential contingencies and conduct contingency planning for abnormal events that may occur during and emergency in support of the IMT. • Be aware of hours worked and ensure relief for self and others working in the EOC. • Provide administrative assistance for the team within the EOC. Debrief the Emergency • Debrief Support Departments and EOC Managers • Revise the Emergency Management Program as required. • Prepare an after-action report on emergency event. • Ensure emergency documentation is completed and filed appropriately. • Communicate learnings. • Each Support Department EPC is responsible to conduct a debrief with either their departmental on-call staff members or collectively with the responding EOC team - after the EOC has stood down. This will provide those who weren't directly involved with some exposure to the event while collectively sharing the lessons observed.

Mexico CEOC Support Department Participation
• Mexico uses a Core EOC Team for all Operations and Project emergencies, with an optional secondary/support EOC team called out as necessary. • For business continuity emergencies, the Mexico EOC is comprised of those departments with Vital and Fatal criticalities. • For current EOC composition, consult the Mexico Corporate EPC.

REOC Teams

The REOC provides operational, logistical, and contingency planning support to the IMT, ensuring the IMT has all the resources they need to effectively stabilize and control the emergency event.

REOC Teams may assist with internal and external notifications, advise on stabilization, and control of the emergency, and serve as a communication point for all Company resources. The REOC's role is to directly support all activities at the scene through communications, resource deployment, and technical expertise.

The specific actions and responsibilities of each REOC role have been established in REOC Role Kits. These materials can be accessed through the TC Energy Emergency Management 1TC website. Not all roles are required to be staffed in every emergency; however, when roles are not staffed, the responsibilities of unstaffed roles must be completed by REOC Manager. Roles Kits are available for the following Regional EOC roles:

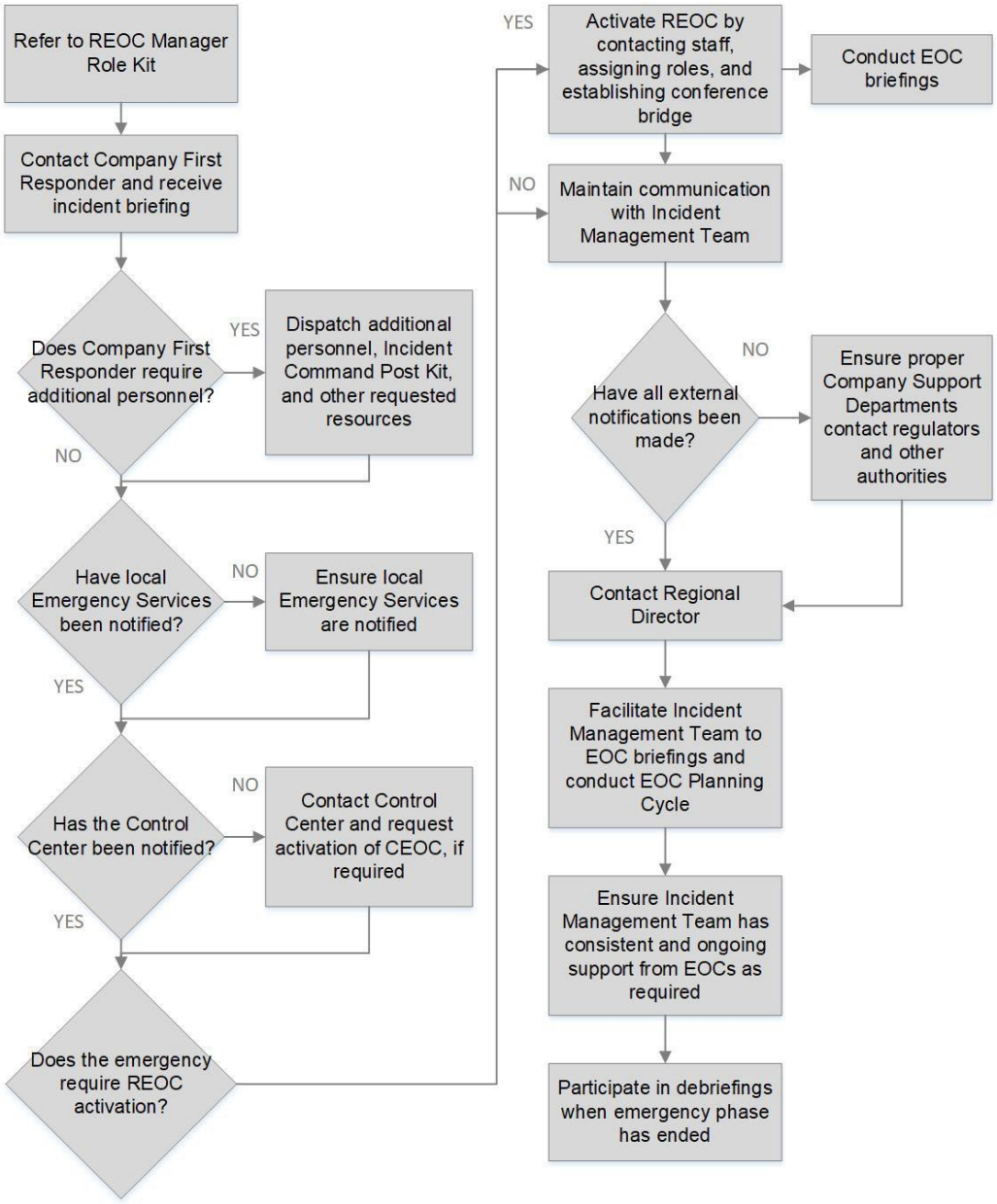
- **REOC Manager:** The REOC Manager is responsible for activating and staffing the REOC to provide support to Company First Responders and the IMT. The REOC Manager role must always be filled when the REOC is active; the REOC Manager shall be the first position staffed and the last position demobilized from the REOC. All EOC Manager roles are safety sensitive; this should be reflected within the individual's profile.
- **Operations Support Coordinator:** The REOC Operations Support Coordinator provides technical support on operation of the effected asset and subject matter expertise on implementation of the Incident Command System (ICS) within the Operations Section on site.
- **Logistics Support Coordinator:** The REOC Logistics Support Coordinator supports the Company First Responder and Incident Management Team by ordering (and tracking orders of) resources (equipment, personnel, and consumables) as requested by personnel on site. This role is also responsible for ensuring the REOC has the people, equipment, and other resources required for maintaining the REOC; this includes ensuring the REOC is secure.
- **Documentation Coordinator:** The REOC Documentation Coordinator supports the Company First Responder and Incident Management Team by creating records of incident information and providing administrative support to the REOC.
- **Information Coordinator:** The REOC Information Coordinator supports the Company First Responder and Incident Management Team by liaising with industry partners, serving as an information gathering focal point for Corporate

Communications, and providing a linkage between Stakeholder Relations & Communications at the site.

- **Planning SupportCoordinator:** The REOC Planning Support Coordinator supports the Company First Responder/Incident Management Team by looking forward to anticipating incident potential and identify potential needs for contingency planning.

Regional Emergency Operations Center	
Organizational Composition	The REOC is staffed by personnel with accountabili ty to Regional Operations or who are near the REOC facility (typically in the Regional Office) if a physical EOC is established.
Mobilizati on Criteria	A REOC will be established for all emergencies within each Region; however, TC Energy's Power and Storage Facilities do not have a REOC. Instead, their Facility Incident Command Post (ICP) will fulfill the requirements of the REOC.
Demobilization Criteria	The REOC shall only be demobilized when such action is agreed upon by the Incident Management Team and the REOC Manager. Either of these groups may propose demobilization of the REOC if the incident does not require the level of support being provided from the REOC.
Scope of Responsibilities	The REOC manager evaluates the resources requiredto address the emergency and may propose resourcedeployment to the Incident Management Team; however, the REOC shall not deploy resources unless requested by the Incident Management Team. Not all REOC roles will be activated in every emergency; however, the REOC Manager role must be filled until the REOC is demobilized. Once an EOC is established, the following activities begin: • Establish the Emergency Conference Bridge. • Continuously reassess the situation. • Participate in incident briefings as scheduled by the Incident Management Team. • Identify issues and propose solutions. • Assign roles within the REOC to ensure requests of the Incident Management Team are met. • Identify resources required; propose a strategy for deploying resources, but do not deploy resources unless requested by the Incident Management Team. • Propose emergency response strategies, including identification of potential contingencies and conduct contingency planning for abnormal events that may occur during an emergency in support of the IMT. • Access and provide emergency response plans to the IMT. • Document facts and rumors. Assign rumors to be investigated. • Reference the REOC Role Kits to identify opportunities to support the Incident Management Team.
Training and Qualifications	REOC Managers must complete the REOC Manager course. No other training or qualifications are required of the REOC staff.

The diagram below depicts the general actions and responsibilities of a REOC.



3.2.4 Incident Support Teams

TC Energy recognizestwotypes of Incident Support Teams (ISTs):

Type of IST	Description
Business Continuity	**Purpose:** For designated leaders in Corporate offices (i.e., Calgary, Houston, Mexico City) to manage broad impacts to personnel, facilities, or technology at those corporate offices.
	Details: Corporate offices in Calgary and Houston have business continuity ISTs. Mexico City uses one IST for operations and business continuity purposes. The leaders of these ISTs have authority to make business continuity decisions on behalf of all personnel and business lines working in these locations (e.g., an office closure instruction from the IST Leader applies to all personnel as directed). Regional/facility offices affected by a business disruption shall be managed by the Operations IST to whom that office reports. Offices with multiple lines of business present (e.g. Airdrie, Charleston) will be managed by the region (Rocky Mountain; Central East) for emergency purposes and their respective Operations ISTs for the management of business impacts. These ISTs may draw in ad hoc members from the affected lines of business as necessary.

Operations	**Purpose:** For the operating a business unit (i.e. Canada Gas, US Gas East, US Gas West, Mexico Gas Operations; Liquids Operations; Power & Storage Operations) experiencing a significant incident or emergency in operations or projects: **Details:** The emergency response processes of an IMT and EOC are intended to function on a stand-alone basis, but the operations VP of an affected line of business is accountable to support an emergency response in their line of business. Persons engaged in emergency response may utilize their operations VP for extraordinary approvals and incident-specific policy guidance if needed. Concurrently the operations VP is the leader of an IST for their line of business. IST Leadership follows the formal delegation of authority during extended absences (e.g. delegated to a director), and their Directors may also activate their IST directly during temporary absences. IST members are drawn from multiple disciplines as selected by the IST Leader. IST members advise and assist the IST Leader in assessing the business impacts arising from an incident, but do not hold responsibility for or direction of an emergency response. ISTs may be activated for incidents that are not emergencies or may function in parallel to an ongoing emergency response, but the response structure is intended to be capable of independent action. EPCs are not responsible for ISTs, but the corporate Emergency Management Team may collaborate with EPCs to conduct IST drills concurrent with emergency exercises. The corporate Emergency Management Team manages the IST components (rosters, training, Everbridge). During an IST activation the corporate Emergency Management Team's role is to: • Assist the IST Leader in conduct of the virtual meeting as an aide de camp • Ensure role clarity and respect of boundaries between IST, EOC and IC/IMT • During a Significant Incident, activate any Emergency Management Program component as needed • Ensure role clarity and autonomy of action for Incident Commanders and Agency Executives.

	The IST Leader is the senior direct representative of an operating line of business. As such they fulfill the ICS position known as "Agency Executive" on behalf of TC Energy. They may also delegate this role to a senior leader on-site to aid the IC with approvals, problem resolution, and determination of overall incident priorities and goals. If multiple senior personnel are on-site only one person shall serve as Agency Executive in the provision of Company direction to an IC. No direction shall be provided to the IC from other than the Agency Executive, and no direction to IMT members shall be provided from the Agency Executive. The IC has the authority to make all decisions related to the event.

Note: Project leadership is included as IST members on each IST. For a project-related significant incident or emergency they hold authority and ability to activate the respective operations IST as serve as IST Leader pro tem, or to request the Operations IST Leader activate their IST in support of the project.

Incident Support Team	

Organizational Composition	The IST will be chaired by the Vice President (or formal delegate) of the affected region/facility with the team having representation from some or all of the following areas:
	• Management from the affected region/facility
	• Pipeline Integrity/Technical Services
	• Commercial
	• Stakeholder Relations
	• Safety, Quality & Compliance
	  ○ Health & Safety
	  ○ Emergency Management
	  ○ Corporate Security
	• Legal
	• Regulatory Compliance

Mobilization Criteria	The IST is activated and de-mobilized at the discretion of the IST Leader. IST members may also advise or request activation. The IST may remain periodically active through the emergency, repair and restoration phases. The IST normally operates virtually and is scalable to the nature of the incident at the discretion of the IST Leader.

Scope of Responsibilities	The role of the IST for significant incidents is as a functional business support tool and its actions fall outside the scope of the Emergency Management System. The primary role of the IST Leader in an emergency is to ensure continued business operations and manage arising business implications. Their secondary role is to serve as an Agency Executive by providing guidance and support to the Incident Commander (and EOC Managers if requested) by: • Delegating authority • Authorizing extraordinary approvals and incident-specific direction • Communicating across the organization and enlisting its support • Managing the non-emergency implications arising from the incident The primary role of IST members in an *emergency* is to serve as advisors to the IST Leader. IST member responsibilities may include: • Taking actions delegated by an IST Leader • Communicating IST activities to their alternate IST member, staff, and if necessary their chain of command • Supporting the response activities and actions of their own personnel • Providing input into the necessary level of activation of the emergency management system • Communicating status updates to Executive Management not participating on the IST
Training, Drills and Qualifications	Training: • All IST Leaders and members are provided one-time role training and an annual LMS refresher module. • IST Leaders are trained in activating their respective IST using the Everbridge Notification System. • IST Leaders and members who have not participated in an incident or drill during a calendar year are scheduled for a drill to maintain knowledge of the IST process and role clarity. Drills: • Drills are used to test the IST notification system periodically. • Use Everbridge to convene and chair an IST conference call using a fictitious scenario; followed by a brief review of areas of success/improvement. Total estimated time 30-45 minutes. • Drills may be scheduled or unscheduled. ○ Scheduled drills should indicate that either the primary or alternate for any area is expected to attend. Either a primary or alternate may take credit for an actual significant incident activation provided they maintain presence for their functional areas during IST drills. • Where membership exists on more than one IST type (e.g. gas-liquids-business continuity; CA-US-MX) the expectation is for the primary/alternate to ensure participation so that the various IST types are not without drill participation from all functional areas. • IST Leaders shall ensure the maintenance of a record of IST drills and significant incident activations for audit purposes. The record shall include date/time; chair; participant roster/area represented; optional summary of key decisions/action items (for

	significant incidents) or areas of success/improvement (drills). The VP's Associate is a recommended point of maintenance.

3.2.5. Incident Coordination Centers

TC Energy recommends using an Incident Coordination Center (ICC) for emergency response on stand-alone, Major Projects. The role and structure of the ICC is consistent across Projects; however, each Project team has the authority to modify certain components based on project needs (i.e. activation process, membership).

The ICC enables escalation and activation of the TC Energy response organization and resources (i.e. IMAT, REOC, CEOC, business-unit IST, etc.)

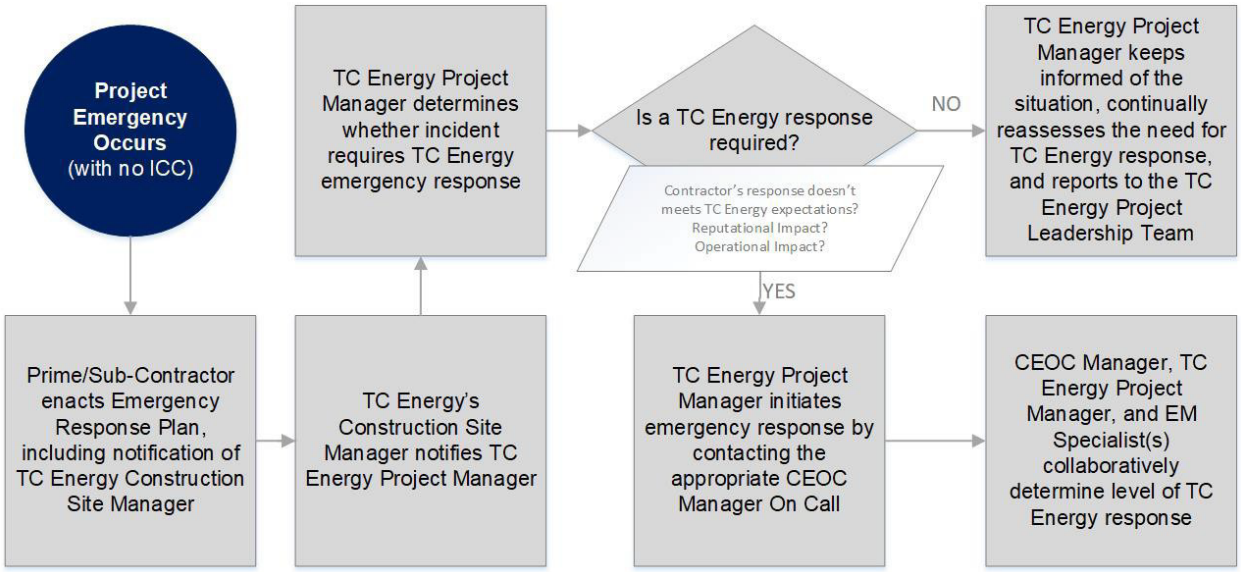
The ICC can be established physically or virtually, but the structure and function remain the same.

During a Major Project's incident or emergency, the initial response actions and notifications are detailed in the Prime Contractor's Site-Specific Safety Plans (SSSPs) and Emergency Response Plans (ERPs). These plans are created in accordance with the TC Energy Prime and General Contractor Occupational Health and Safety (OHS) Standard and submitted for approval prior to mobilization. These plans include notification protocols to TC Energy representative(s).

Incident Coordination Center	
Organizational Composition	ICC membership may include: • Project Executive Leadership • Project Directors • Health & Safety • Emergency Management • Corporate Security • Stakeholder Relations • Communications • Regulatory Compliance • Land/Community Relations • Indigenous Relations • Project Manager/Lead from the impacted site • Others as requested by Project Leadership
Activation Process	Upon notification of a Major Project incident or emergency, the ICC is activated in accordance with the Project established process or response plan. The ICC may otherwise be activated at the discretion of the project leadership team.
Mobilization Criteria	An ICC may be activated for the following types of events: • A contagious illness outbreak potentially impacting external stakeholders and rightsholders. • Personnel injuries in numbers and/or severity requiring emergency support above the capabilities of the local emergency response resources. • Incident that may result in widespread workforce and/or external stakeholder post incident stress

	• Major injury or fatality of a TC Energy employee (including contracted construction management or inspection team members). • Spills or releases that potentially impact external stakeholders, rightsholders, or sensitive environmental areas. • Project generated fire that potentially impacts the safety of the Project field resources or external stakeholders or rightsholders. • Security related incidents that potentially negatively impact the reputation of the Company, such as protests. • Incidents that potentially impact existing operating facilities and TC Energy business commitments. • Incident that exceeds the Prime/Sub-contractors' ability to effectively manage the response or where the Prime/Sub-contractor is not meeting the Company's expectations.
Scope of Responsibilities	The ICC is a coordination venue where Project leadership and support staff: • Manage information and assist the Prime Contractor(s) and responding personnel during an incident or emergency.

For smaller scale Projects that don't present any new unmanaged hazards or risks, the establishment of a robust ICC may not make sense and/or may not be feasible. In this instance, a general response approach to supporting any Project emergencies led by a Prime or Sub-prime contractor should adhere to the following process:



The Emergency Management specialist, once engaged, will support activation and ongoing facilitation of the response structure to ensure effective management of the significant incident and/or emergency event.

3.3. Incident Command System

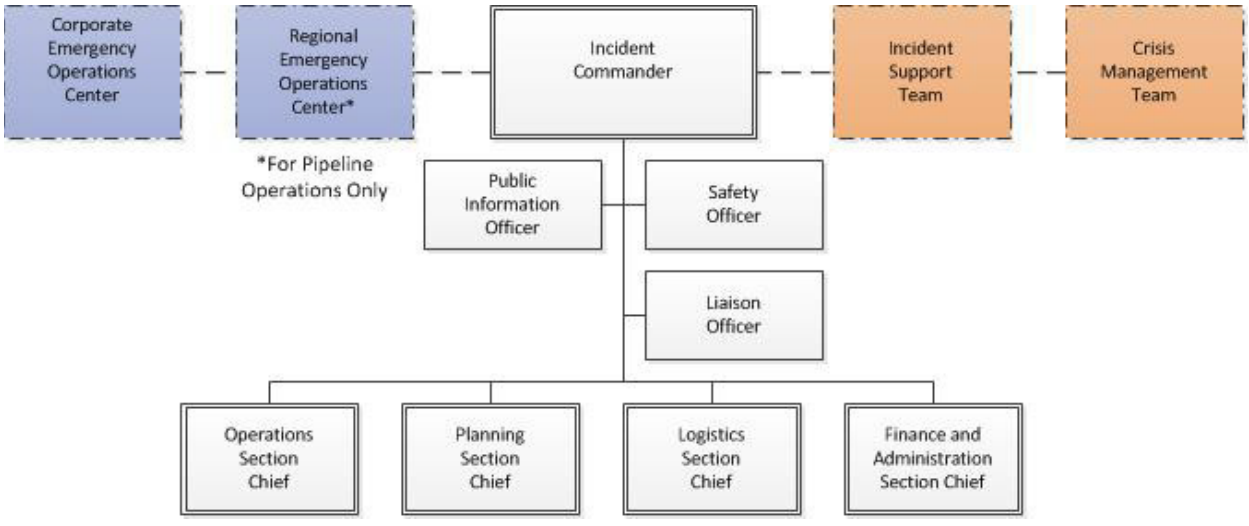
To effectively manage emergencies TC Energy uses the Incident Command System (ICS) derived from ICS Canada or NIMS(US/Mexico). ICS is a standardized on-scene emergencymanagement system that has considerable flexibility, has been found to be cost-effective and efficient, and can be applied to both emergency and non-emergency events.

ICSis basedon the knowledge that every emergency has certain major management activities that must be performed. Even if the event is very small and only one or two people are involved, these activities will always apply to some degree. the five major management activities in ICSare:

1. Command
2. Operations
3. Planning
4. Logistics
5. Finance/Administration

The ICSorganization, as presented here, has been developed from these five management activities. In the ICS organization job titles and responsibilities may not be changed, thus ensuring that any individual properly trained can come into an emergencyand know their role. However, ICSprovides the flexibility to allow eachevent to have its own unique organizational structure based on the size and type of event. It is the responsibility of the IC to determine the appropriate ICS organization based on the event.

3.3.1. Overview



ICSRole Kits, including checklists and other role kit materials for the roles most commonly staffed in ICS, have been developed and can be accessedthrough the TC Energy Emergency Management 1TC website. Not all roles are required to be staffed in every emergency; however, when roles are not staffed, the responsibilities of unstaffed roles must be completedby other

personnel.

TC Energy accepts use of either the role kits included on the Emergency Management website or use of Incident Management Handbooks by IMTs. Either the ICS Role Kits or the Incident Management Handbooks shall be available to all IMTs in paper or app version; most commonly, these kits and handbooks are maintained as part of the Incident Command Post Kit.

Roles Kits are available for the following Incident Management Team roles:

3.3.2. Command StaffRoles and Responsibilities

The Incident Commander (IC) has responsibility for overall management of an incident; specific functions are established to support and directly report to the IC. These specific roles fill Officer positions within ICS; collectively, the IC and all Officers comprise the Command Staff.

Company First Responder

The Company First Responder is TC Energy's first official representative at the emergency site. This mandatory role must be filled for all emergencies. The specific roles of the Company First Responder in a Natural Gas Pipeline, Gas Storage, or Power Emergencydiffer slightly from that of a Liquid Pipeline emergency, as noted in the entity-specific role kits on the Emergency Management website.

In alignment with the principles of ICS, the Company First Responder is empowered as TC Energy's Incident Commander (IC), but with a reduced scope of responsibility (i.e. 'first hour' duties as defined on First Responder Role Kit Checklist) until such time as they canbe relieved by a qualified IC (e.g. Team Leader; Area Manager.)

Incident Commander

The Incident Commander's (IC) responsibility is the overall management of the incident, including identification of and contingency planning for abnormal events that may occur during and emergency, in alignment with the response goals and objectives. On many incidents, the command activity is carried out by a single IC. The IC is selected based on qualifications and experience.

At TC Energy the Incident Commander who relieves the Company First Responder will most commonly be an area or facility manager. As the incident progresses, the IC may be relieved by ICs, but it is not recommended that command be assumedby levels higher than Director to ensure availability of senior leaders to maintain broader organizational roles during emergencies. For example, Vice Presidents of an affected field operation automatically retain the role of IST Leader. Theymay serve in that policy and goal-setting capacitydirectly on-site as an Agency Executive, working in conjunction with the IC.

The IC may have Deputy ICs who may be from TC Energy or maybe from an assisting agency. The

Deputy IC 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. When span of control becomes an issue for the IC, a Deputy IC may be assigned to manage the Command (or other) Staff.

Safety Officer

The Safety Officer (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 assistants, as necessary, and the assistants may also represent assisting agencies or jurisdictions. Safetyassistants may have specific responsibilities, suchas air operations, hazardous materials, etc.

Public Information Officer

The Public Information Officer (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 Unified Command (UC) and multi-jurisdiction incidents. The PIO may have assistantsas necessary, and the
assistants may also represent assisting agencies or jurisdictions.

Liaison Officer

A Liaison Officer (LOFR) is assigned to an incident as the initial single-point of contact for assisting and/or cooperating Agency Representatives (assisting agencies bring resources; cooperating agencies bring advice).

The LOFR works with governmental and regulatoryrepresentatives, as wellas leaders from indirectly affectedagencies, jurisdictions, non-government organizations (NGO's), Indigenous and landowner groups. The LOFR is the IMT member responsible for coordinating two-way information sharing between Command and these organizations (media interface remains with the PIO). The LOFR's primary purpose is to:

- Meet, greet and assignassisting or cooperating agencies within the IMT structure in those roles most likely to assist the agency in fulfilling their mandate while aiding the achievement of incident objectives (e.g. as a technical specialist in the environment unit; as a field observer in Operations; as an Indigenous Traditional Knowledge Specialist in the Planning Section).
- Maintain ongoing two-waydialogue between command and agencies to ensure that command is aware of their concerns, that they are clear on their reporting and have the necessary supporting resources tofulfill their role (e.g. workstations with connectivity; logistical needs).
- Introduce tothe Company IC those agencies of primary jurisdiction expressing a desire to serve in Unified Command or other commandvariants.

The LOFR may have one or more Assistant Liaison Officers (ALOFR) as necessary, and the

assistantsmay be appointed from and/or represent assisting agencies or jurisdictions. At TC Energy a dedicated ALOFR from Regulatory Compliance is appointed as the direct escort and aide-de-camp for the primary regulator of jurisdiction (e.g.CER, AER, PHMSA, EPA, USCG, ASEA). This function may continue at the discretion of the regulator if they choose to participate in Unified Command.

3.3.3. General Staff Roles and Responsibilities

The remaining four major management activities (Operations, Planning, Logistics, and Finance/Administration) are referred to as Sections within ICS, and the leaders of these sections are called Section Chiefs. TC Energy does not use the Intelligence function within NIMS (U.S.), but may participate in Unified Command where this function is employed by other participants.

Operations Section

The Operations Section is responsible for the management of all tactical operations directly applicable to the primary mission. The Operations Section is responsible to execute tactics in the Incident Action Plan (IAP). The leader of the Operations Section is called the Operations Section Chief (OSC). The OSC has the following specific responsibilities:

- Direct the preparationof operational plans, including contingency plans for abnormal events that may occurring during the emergency;
- Request or releases resources,
- Monitor operational progress, and
- Make expedient changes tothe IAP, as necessary

The OSC may have Deputy OSCs, who may be from TC Energy or may be from an assisting agency. The Deputy OSC shall have the same qualifications as the person for whom they work, as they must be ready to take over that position at anytime.

In complex incidents, the OSC may assign a Deputy OSC to supervise on-scene operations while the OSC participates in the incident planning process.

The OSC will normally be selectedfrom the organization/agency with the most jurisdictional responsibility for the incident.

An Operations Section Chief may assignthe following roles within the Operations Section to build a more robust team to meet the demands of the incident:

- **Staging Area Manager** establishes staging area for resources brought to the site, determines any additional needs for equipment, feeding, sanitation and security, establish check-ins, traffic control areas, obtainand issues receipts for supplies distributed and received.
- **Air Operations Branch Director** organizes air operations, request/declare restrictedair space, air traffic control requirements, supervise all air operations, and coordinate with Federal Aviation Authorities – this role kit will be managedby Corporate Aviation who should normally be asked to staff the position where aircraft are used during

response.

- Other Branch Directors and Divisions, Groups, Strike Teams, Task Forces and Segments as needed.

Planning Section

The Planning Section is responsible for the collection, evaluation, dissemination and use of incident information and maintaining status of assignedresources. Incident information has many uses, a few listed as follows:

- Communicate the status of the currentsituation.
- Predict the probable course of incident events.
- Prepare strategies, plans and alternative strategiesand plans for the incident, including contingency plans for abnormal events that may occur during and emergency.
- Submit required incident status reports.

The leader of the Planning Section is the Planning Section Chief (PSC). The PSC may have Deputy PSCs, who may be from TC Energy or may be from an assisting agency. The Deputy PSC shall have the same qualifications as the person for whom they work, as they must be ready to take over that position at anytime.

A Planning Section Chief may assignthe following roles within the Planning Section to build a more robust team to meet the demands of the incident:

- **Documentation Unit Leader** provides duplication services, including written Incident Action Plans, and maintains and archives all incident-related documentation.
- **Demobilization Unit Leader** assists in ensuring that resources are releasedfrom the incident in an orderly, safe, and cost-effectivemanner.
- **Resource Unit Leader** ensures all assigned personnel and resources have checked in at the incident. Resources consist of personnel and equipment available for assignment to or employment during an incident. The Resources Unit maintains a system for keeping trackof the current location and status ofall assigned resources and maintains a master list of all resources committed toincident operations.
- **Situation Unit Leader** is responsible for collecting, processing, and organizing ongoing situation information; prepares situation summaries; and develops projections and forecasts of future events relatedto the incident. The Situation Unit prepares maps and also gathers and disseminates information and intelligence for use in the Incident Action Plan (IAP). This Unit shall be prepared to provide timely situation reports as scheduled or at the request of the Planning Section Chief or IC.
- **Environmental Unit Leader** is responsible for managing all environmental matters associated with incident response operations, including: environmental assessment; permitting; modeling and surveillance; environmental monitoring and damage assessment; and sensitive habitat and wildlife protection and rehabilitation. Additionally, the leader is responsible for providing technical advice to Operations Section on activities including waste disposal and alternative technologies (in situ burning, dispersant use) and for developing remediation and restoration plans.

- **Field Observer** is responsible for collecting situational information from personal observations at the incident and provides this information to the Situation Unit Leader.
- **Technical Specialists** have specialized knowledge and expertise. Technical Specialists may function within the Planning Section or be assigned wherever their services are required. For example, if a lawyer was deployed to counsel staff during a regulatory investigation, they would be named 'Legal Specialist' and assigned to interviewees as needed.

Logistics Section

The Logistics Section is responsible for providing facilities, services, and material in support of the incident. The leader of the Logistics Section is the Logistics Section Chief (LSC). 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, who may be from TC Energy or may be from an assisting agency. The Deputy LSC shall have the same qualifications as the person for whom they work, as they must be ready to take over that position at any time.

A Logistics Section Chief may assign the following roles within the Logistics Section to build a more robust team to meet the demands of the incident:

- **Communications Unit Leader** prepares and implements the Incident Communication Plan, distributes and maintains communications equipment, supervises the Incident Communications Center and establishes adequate communications over the incident.
- **Medical Unit Leader** provides first aid and light medical treatment for personnel assigned to the incident and prepares procedures for a major medical emergency; this role filled by third party Emergency Medical Services in most incidents.
- **Food Unit Leader** responsible for providing meals and drinking water for incident personnel and obtains the necessary equipment and supplies to operate food service facilities at the incident base.
- **Facilities Unit Leader** sets up and maintains incident facilities and is responsible for facility security and facility services (sanitation, lighting, and cleanup).
- **Security Manager** organizes site security, secures the incident site and perimeter, maintains an entry/exit log off all visitors, works with local Policing authorities, maintains a list of authorized personnel attending the emergency site, and provides direction to contract security deployed to the site.
- **Ground Support Unit Leader** prepares the Transportation Plan. Arranges for, activates, and documents the fueling and maintenance of assigned ground transportation, and arranges for the transportation of personnel, supplies, food, and equipment.
- **Supply Unit Leader** determines the amount of supplies needed to support the incident. The role is responsible for ordering, receiving, storing and distributing supplies, services and nonexpendable equipment. All resource requests are placed through this unit and the unit maintains inventory and accountability of supplies and equipment.

Finance/Administration Section

The Finance/Administration Section is responsible for all financial, administrative, and cost analysis aspects of the incident. The leader of the Finance/Administration Section is the Finance/Administration Section Chief (FASC). The FASC is responsible for supervising members of the Finance/Administration Section. The FASC may have Deputy FASCs, who may be from TC Energy or may come from an assisting agency. The Deputy FASC shall have the same qualifications as the person for whom they work, as they must be ready to take over that position at any time.

A Finance/Administration Section Chief may assignthe following roles within the Finance/ AdministrationSection to build a more robust team to meet the demands of the incident:

- **Cost Unit Leader** provides cost analysis data for the incident. This role must ensure that equipment and personnel for which payment is required are properly identified, obtain and record all cost data, and analyze and prepare estimates of incident costs. The Cost Unit also provides input on cost estimates for resource usetothe Planning Section. The Cost Unit shall maintain accurate information on the actual costs of all assignedresources.
- **Compensation Claims Unit Leader** is responsible for handling injury compensationandclaims.
- **Procurement Unit Leader** is responsible for financial matters involving vendor contracts.
- **Time Unit Leader** is responsible for recording time for incident personnel and hired equipment.

3.4. Unified Command

In the Incident Command System, a Unified Command (UC) is an authority structure in which the role of Incident Commander is shared by two or more individuals (inclusive of TC Energy), each already having authority in a different responding organization/agency. Unified Command is one way to carry out command in which responding organizations/agencies and/or jurisdictions with responsibility for the incident share incident management.

A UC may be needed for incidents involving multiple jurisdictions or agencies.

If a UC is needed, Incident Commanders representing responding organizations/agencies or jurisdictions that share responsibility for the incident, manage the response from a single incident command post. A UC allows agencies with different legal, geographic, functional authorities and responsibilities to work together effectively without affecting individual organization/agency authority, responsibility, or accountability. Under a UC, a single, coordinated incident action plan will direct all activities. The Incident Commanders will supervise a single command and general staff organization and speak with one voice.

Unified Command representatives must be able to:

- Agree on common incident objectives and priorities.
- Have the capability to sustain a 24-hour-7-day-per-week commitment to the incident.
- Have the authority to commit agency or Company resources tothe incident.
- Have the authority to spend agency or Company funds.
- Agree on an incident response organization.

- Agree on the appropriate Command and General Staff assignments.
- Commit to speak with "one voice" through the Public Information Officer or Joint Information Center.
- Agree on logistical support procedures.
- Agree on cost-sharing procedures.

TC Energy's Incident Commander will work with local emergency officials to protect the health, safety and welfare of people, our facilities, and the environment by providing Emergency Services with information pertaining to TC Energy's facilities, such as material data and hazard information. The TC Energy Incident Commander will oversee TC Energy's operations and personnel and will work with emergency services to establish our primary objectives (i.e. Life Safety, Incident Stabilization, and Property Preservation).

During an emergency, local emergency officials have the ultimate authority when it comes to ordering a community or individual evacuation. TC Energy representatives will work with emergency officials during an evacuation so that TC Energy is aware of the community evacuation center(s) that pertains to our emergency.

3.5. Incident Action Plans

Incident Action Plans (IAP) are oral or written plans containing general incident objectives, reflecting the overall strategy for managing an incident, and including the identification of operational resources and assignments. IAPs may also include attachments (including contingency plans) that provide direction and important information for management of the incident during one or more operational periods. IAPs differ from deliberate plans (described in Section 6 of this Manual) because IAPs are developed during an incident, allowing for reactive and proactive planning in relation to the specific scenario, conditions, geography and abnormal events which may be unpredictable prior to the emergency event.

The ICS Planning Process is used to develop written IAPs for emergencies that extend beyond one operational period where the Incident Commander(s) desires a formalized action plan.

3.5.1. Contingency Planning Framework

During the emergency response phase, contingency planning is a series of actions to identify and develop measures to address Abnormal Conditions that could preclude or obstruct effective execution of initial emergency response efforts or subsequently developed IAPs.

Examples of contingency plans potentially required during response include:

- Identifying alternate access routes
- Identifying alternate Incident Command Post locations
- Mobilizing unique resources that are not locally available

Contingency planning during the emergency response phase is supported by contingency planning during the emergency preparedness phase but is necessarily context-based and

increasingly flexible to be effective. It is distinguishable from the emergency preparedness phase on this basis.
Notwithstanding, emergencyresponse phase contingency planning is guided and abides by the objectives and ordered steps as described in the Contingency Planning Process.

TC Energy adheres to the ICS. Accordingly, while contingency planning during the response phase is guided and abides by the Contingency Planning Process, it is implemented in and through the ICSPlanning Cycle as depicted in the 'Planning P' for Incident Command Posts (1008993862) diagram ('Planning P'). The 'Planning P' includes both reactive and proactive phases within the initial emergency response and ongoing emergencyresponse, respectively.

Contingency Planning - Initial Emergency Response – Reactive Phase

During the initial response phase of an emergency, TC Energy's First Responder/Incident Commander is responsible to develop incident objectives to manage the initial response phase. Any Abnormal Conditions that become evident during the initial response to an emergencysuch as the inability for TC Energy personnel to access the site via pre-identified site access routes, or inadequate resource availability (personnel and/or equipment) may become apparent early on.

The EOCs support the 'Planning P' until an IMT is established. Role Kits provide additional direction for contingency planning. Examples would include identifying alternate access routes or Incident Command Post locations and/or mobilizing additional resources out to site that are not locally available.

Contingency Planning – Ongoing Emergency Response – Proactive Phase

TC Energy's Incident Management Teams are responsible to identify Abnormal Conditions in this phase and requests support from the Regional and Corporate EOCs as necessary to help develop contingency plans and measures tomanage them.

It is during this phase of the response when contingency planning occurs at more depth throughout the Incident Action Planning (IAP) cycle. Where Command and General staff anticipate the IAP may be unable to be executed or progress is anticipated not to occur as scheduled, contingency plans and measures shall be developed and integratedinto the IAP.

During the tactics and planning meetings, Command and General Staff are accountable to manage any Abnormal Conditions that present themselves during this phase. Abnormal Conditions that drive changes to the IAP are discussed during the Operations Briefing and communicated to the Incident Commander. The Operations Section Chief, in consultation with the Planning Section Chief, is responsible to coordinate and consult with the Incident Commander(s), Command Staff, General Staff and Unit Leaders to develop the Incident Action Plan (IAP). Command staff and EOCs shall take the following role-specific actions in relation to the IAP and Abnormal Conditions:

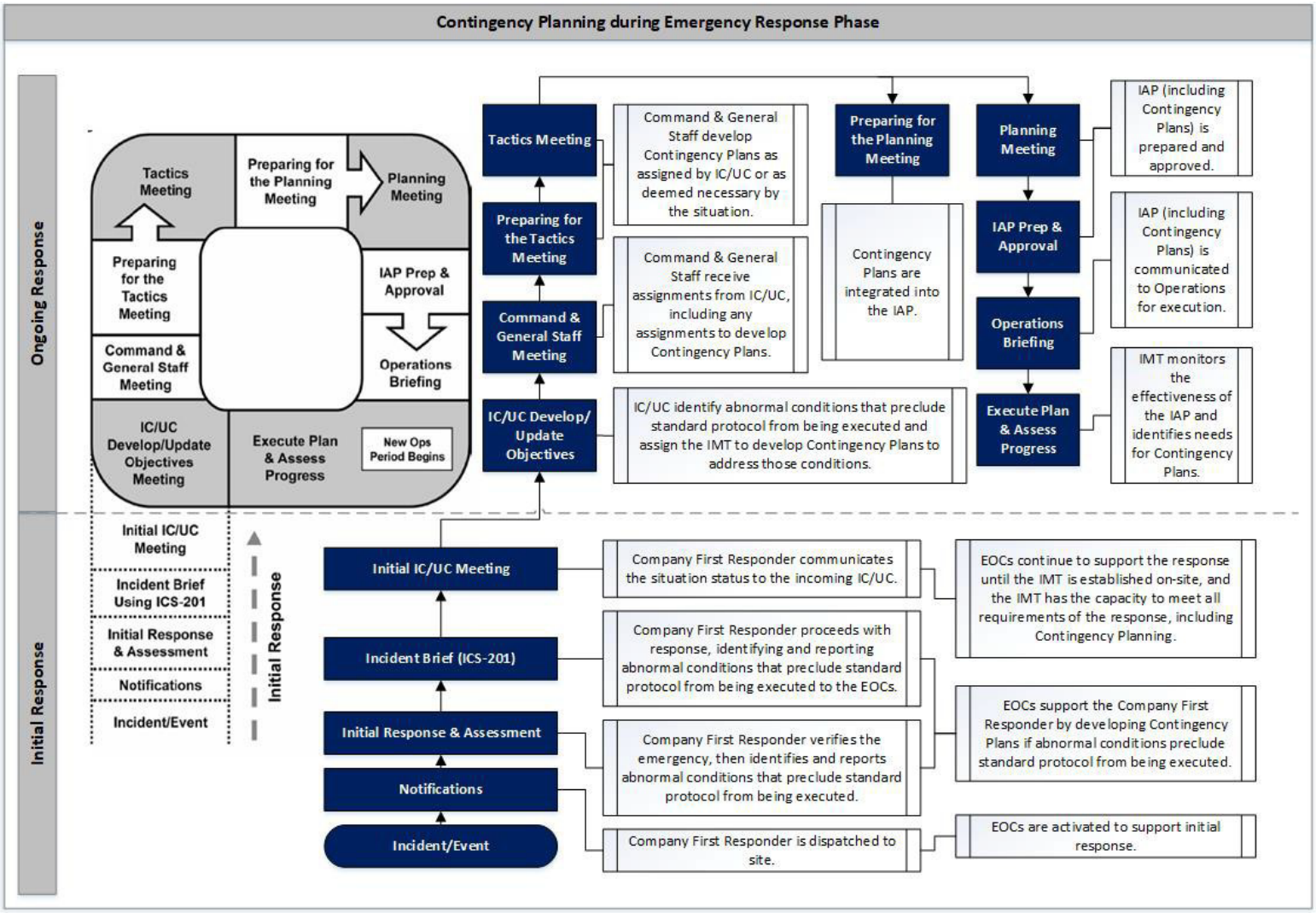
i. Operations Section Chief - is responsible for the management of all tactical operations and shall make changes tothe IAP as necessary.

ii. Planning Section Chief - is responsible for the collection, evaluation, dissemination and use of the incident information, and shall prepare strategies, plans and alternative strategies and plans for the emergency event.

iii. EOCs - if still active, shall support the roles and steps above as needed based on what decisions have been established throughout the development of the IAP for that specified Operational Period.

Since the 'Planning P' is cyclical, it is repeatedin each Operational Period which allows for continuous evaluating and revising of the IAP. Reassessing the process's implementation and identifying potential to address Abnormal Conditions in each new Operational Period enables Command and General Staff to continually anticipate and formulate contingency measures and plans as the evolving emergency demands throughout the emergency. A variety of ICS forms can be used to direct the development of the contingency plans and these are referencedin. Appendix – Forms and Templates.

The diagram on the next page demonstrates the Contingency Planning Process as implemented through the Planning P, throughout the initial and ongoing phases of an emergencyresponse, if potential Abnormal Conditions are present or as otherwise required.



3.6. Communications Strategy

TC Energy utilizes ICS to manage communications during emergency response. The Public Information Officer and Liaison Officer Command Staff roles are critical to ensuring that stakeholders, rightsholders, media, emergency services and the public are informed of critical information during response activities. These roles, along with various emergency, site, stakeholder, and mobile communications procedures are further detailed in Section 3.

In addition to ICS roles, TC Energy's Crisis Communications & Response Plan outlines communications strategies and tactics for employee communications, digital communications, use of Joint Information Centers and other procedures.

3.7. Emergency Facilities

Numerous physical locations can be used to support incident management; some of these facilities are used directly by the Incident Management Team (IMT) to coordinate activities, provide support to the Operations Section, and assist with the organization and tracking of resources. Such facilities are called Incident Facilities and may include the following:

- Incident CommandPost
- Staging Areas
- Base
- Camps
- Helibases
- Helispots

Other facilities may also be established, commonly at a greater distance from the incident site, and these facilities can be used to the support the Incident Management Team. Such facilities may include the following:

- EmergencyOperations Centers
- Joint Information Centers
- ReceptionCenters

3.7.1. Incident Command Post (ICP)

The Incident Command Post (ICP) is the location at which the primary Command functions are performed. The Incident Commander is typically stationed at the ICP. All incidents shall have a designated ICP, and there shall by only one ICP per incident. The ICP may be co-located with other incident facilities.

The ICP may be in a vehicle or tent. However, if the incident duration is expected to be more than a few hours, a building (i.e. TC Energy office, hotel conference room, portable/modular office trailer) is recommended.

When selecting a location for the ICP, the following items are considered:

- Nature of the incident, (whether the incident has potential to grow or move, and whether the location is suitable in size and is safe for the expected duration of the incident.)
- Wind direction and product migration; establishthe Incident CommandPost upwind and uphill from incident site, if possible.
- Geography of the incident; establish the Incident Command Post in a central location in proximity to the incident so the Incident Commander cancontrol all activities and observe the access routes.
- Ease inidentifying, viewing, and accessing the location.
- Security; ensure the location is able to be securedand have controlled access at all hours of day.
- An alternate ICP in case conditions of the event change; the alternate ICP may be select throughthe contingency planning process.

The following resources should be immediately requested (if not alreadyavailable) upon establishment of the ICP.

- A communications system for contacting Company personnel and outside agencies, groups or organizations whose help may be needed. The communications system may include the following:
  - Satellite Phone
  - Cellular Phone(s)
  - Satellite/Cell phone telephone directory
  - Handheld Radios
- Display the Organization Assignment List (ICS 203-CG (007725304)) or Incident Organization Chart (ICS-207 CG (007725335))

Within 24 hours of establishing the ICP, an Incident Command Post Kit should be delivered to site. EMS Incident Command Post Kit Requirements Checklist (003674777) provides requirements of the Command Post Kit contents.

In addition to Command Post Kit, the following resources should be obtained for the site within 36 hours:

- Computers
- Printer
- Communications infrastructure (i.e. radio, telephone, internet)
- Teleconferencing Equipment

The resources listed above, and many more, are available to all Business Units across Company through the Flyaway Kits, further described in section 5 of this Manual.

3.7.2. Staging Areas

Staging areas may be required for the reception and deployment of resources located near the emergencysite. Staging areas shall be locateda safe distance awayfrom the emergency site, but close enough for quick response.

Staging areas shall have:

- Designatedareas where mobile equipment can be temporarily parked while awaiting assignment.
- Specifically assignedparking areas for all responding agencies.
- Systems in place to ensure the vehicles are parked properly and do not obstruct the movement of other vehicles.
- A system to monitor the reception and deployment of resources from the staging area.
- Staging areas mayinclude temporarysanitation andfueling services.

3.7.3. Base

A base is the location where primary logistics functions for an incident are coordinated and administered; a base may be established when the ICP cannot accommodate a large Logistics Section. The Base may be collocated with the ICP.

3.7.4. Camps

Camps are temporarylocations within the general incident area which are equipped and staffedto provide sleeping, food, water, and sanitaryservices to incident personnel. Camps are separate facilities not located at the incident Base. Camps maybe in place for several days, and they may be moved depending upon incident needs. Very large incidents may have one or more Camps located in strategic areas.

3.7.5. Helibases

A Helibase is the main location within the general incident area for parking, fueling, maintenance, and loading helicopters. The helibase is often located at or near the incident Base. However, anincident Helibase can also be located at a nearby airport or any other off-incident location.

3.7.6. Helispots

Helispots are temporary locations in the incident area where helicopters cansafety land and take-off. Helispots can be used to load/off-load personnel, equipment, supplies, water, etc.

3.7.7. Emergency Operations Center (REOC)

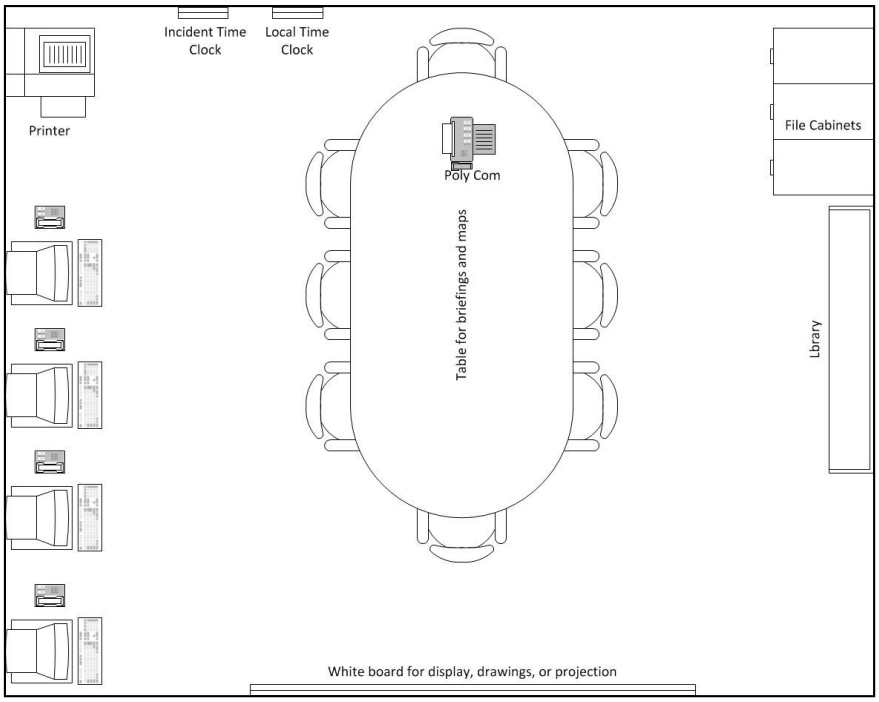
TC Energy's Emergency Operations Centers (EOCs) are designed and organized to support the on-scene IMT during an emergency.

Each Region has a space dedicated or easily transformable into an EOC. Each Region shall have two dedicated conference lines:

- EmergencyConference Line (for purpose of the briefing with the IMT and EOCs).
- Operational Conference Line (for the purpose of the Regional operations role to communicate with the Operations Section Chief, Engineering support, and/or the Control Center).

All EOCs have the characteristics and resources as describedin the Emergency Management System Emergency Operations Center Checklist (004266666).

The image below depicts the suggested Layout of an EOC or designated Facility ICP.



3.7.8. Mobile Command Vehicles

TC Energy operates over vast distances where there is a significant possibility that resources will not be immediately available to establish a formal ICP. Using a Mobile Command Post is one way to provide the necessities ofmobility, interconnectivity of communications, interoperability and coordination between TC Energy and responding emergency service agencies and regulators. Mobile Command Vehicles may be company owned or may be available through contracts with other

response organizations.

Mobile Command Posts may have a varietyof capabilities and functions. When purchasing or contracting a Mobile Command Post vehicle, the following equipment should be assessedfor need and availability:

- Satellite, cellular communications suite withinteroperability capabilities
- Dual band Motorola Radiosystem
- Large conference area with seating for 7 persons
- Large screenTV/Monitor
- Additional TV/Monitors for informationdisplay
- Work stations
- Outdoor TV/Monitor for informationdisplay
- Weather station
- IT cabinet
- UPS backup system
- Mast and Camera system for external surveillance
- Unit-mounted light tower.

For comfort and effectiveness, in long-term operations in hostile climates, Mobile Command Posts shall provide various amenities to include air conditioned and heated spaces, aninternal restroom, a galley with running water, a refrigerator and a microwave.

3.7.9. Reception Centers

In emergencies impacting the public, TC Energy's Liaison Officer may establish Reception Centersto meet the following purposes:

- Share information about the emergencywiththe public
- Collect information regarding publicimpacts of the emergency
- Receive requests for assistance forrecoveringfrom the emergency
- Serve as a ReceptionCenter for receiving and organizing evacuees

3.7.10. Joint Information Centers (JICs)

The Joint Information Center (JIC) is a central location that facilitates operation of the Joint Information System where personnel with public information responsibilities perform critical emergency information functions, crisis communications, and public affairs functions.

JICs may be established at incident sites or near the Incident Command Post. A single JIC location is preferable, so personnel with public information responsibilities canensure coordinated and consistent messaging is being distributed by all stakeholders and rightsholders.

3.8. Emergency Communications

Establishment of secure and reliable communications can be one of the biggest challenges during emergencies. Eachasset shall assessthe needfor redundant communications systems within their facilities to ensure information can be exchanged with external entities during an emergency.

If communications technologies are on site for daily use, they shall be regularly tested in preparation for an emergency. Where backup communications technologies are not routinely on-site, facilities shall ensure contract resources are available to establish communications networks on site in a timely manner. These contractors work with the TC Energy Chief Information Office to ensure the systems the contractedresource(s) are compatible with TC Energy existing systems.

TC Energy's primarycommunication system betweenthe ICP and the EOCs during an emergency will be cellular phones. If a secondary communication system is required because the primary communication system is inoperable or a private conversation is required, land lines or satellite telephones are used.

3.8.1. Mobile Communications Equipment

Operational communications equipment is essential to the effective and efficient management of an emergency. To ensure communications equipment is operational, a maintenance schedule must be established to ensure batteries are properly charged, equipment is accessible, and personnel know how to use the equipment. All mobile communications equipment shall be testedfor proper function before dispatching them to the emergencysite.

To determine mobile communications requirements (i.e. type/quantity) and to request equipment, contact Telecommunications Operations (2111 from a TC Energy telephone line, or 1-888-546-3484).

The following are required mobile communications equipment for EOCs and the ICP.

- Satellite phone
- Fixed telephones (power fail safe)
- Operating instructions for the various communications equipment

All personnel who may be involved in an emergencyand use communications equipment shall be appropriately trained. Contact Telecommunications Operations to arrange for training (2111).

3.8.2. On-Site Communications

Each Region and Facility has a dedicated conference line to manage emergencyevents in their area. The conference line and ID number shall be prominently posted in the EOC; however, prominent display of the confidential conference line may be a risk to its confidentiality in locations where the ICP is open to non-TC Energy personnel. Consider an alternate method of ensuring those who need the number have it if facilities are open to non-TC Energy personnel.

The REOC is accountable to establish the emergencyconference line as soon possible following an emergency. The CEOC and IMT shall use this line to establish communications between all entities. This allows the EOCs or ICP to receive updates from the site and respond to any requests from the site for services or resources.

The CEOC Manager shall ensurethe conference call is facilitated either by the Region/Facility or by the CEOC Manager. Questions will be kept at a minimum and follow up inquiries will first be channeled through Region/Facility counterparts for answers before being addressed in group conference call.

Communication lines shall remain open during the emergency event allowing any party immediate contact with the others for any critical requests/ updates. Conference call times shall be scheduled between the Incident Command Post, Region EOC, and CEOC. The CEOC Manager is responsible to ensure all Support Department phones are active in the EOC.

An Operations conference line may be established by the Operations role in the Regional EOC or Facility Incident Command Post during the emergency response process. This conference line may be established to facilitate the sharing of detailed technical information (i.e. valve closures, isolation procedures etc.) among the Operations Section Chief on site, the Regional EOC Operations role, Engineering and the applicable Control Center.

EachSupport Department shall document their telephone number in their Functional Plan in the event they are unable to attend in person. Each Support Department is accountable to call their phone in the CEOC until answered, providing their name and department they represent. The telephone will be placed on hands free sothe department can hear the discussions in the EOC and provide any feedback. The CEOC conference number may also be established for those Support Departments that cannot physically attend the EOC and provide support remotely. The open communication line allows these departments toparticipate in updates and contribute to the response.

Inter-Agency Communications

TC Energy welcomes engagement ofemergency response agencies toresponse operations when the situation dictates such collaboration. However, TC Energyinformation technologies may not always be compatible with the technologies used by public responders or other external agencies. To resolve this, testing interagency communications equipment and processes during exercises is recommended.

Communication with Media

Continued co-operation withthe media and effective media communication is anessential part of any emergencyresponse.

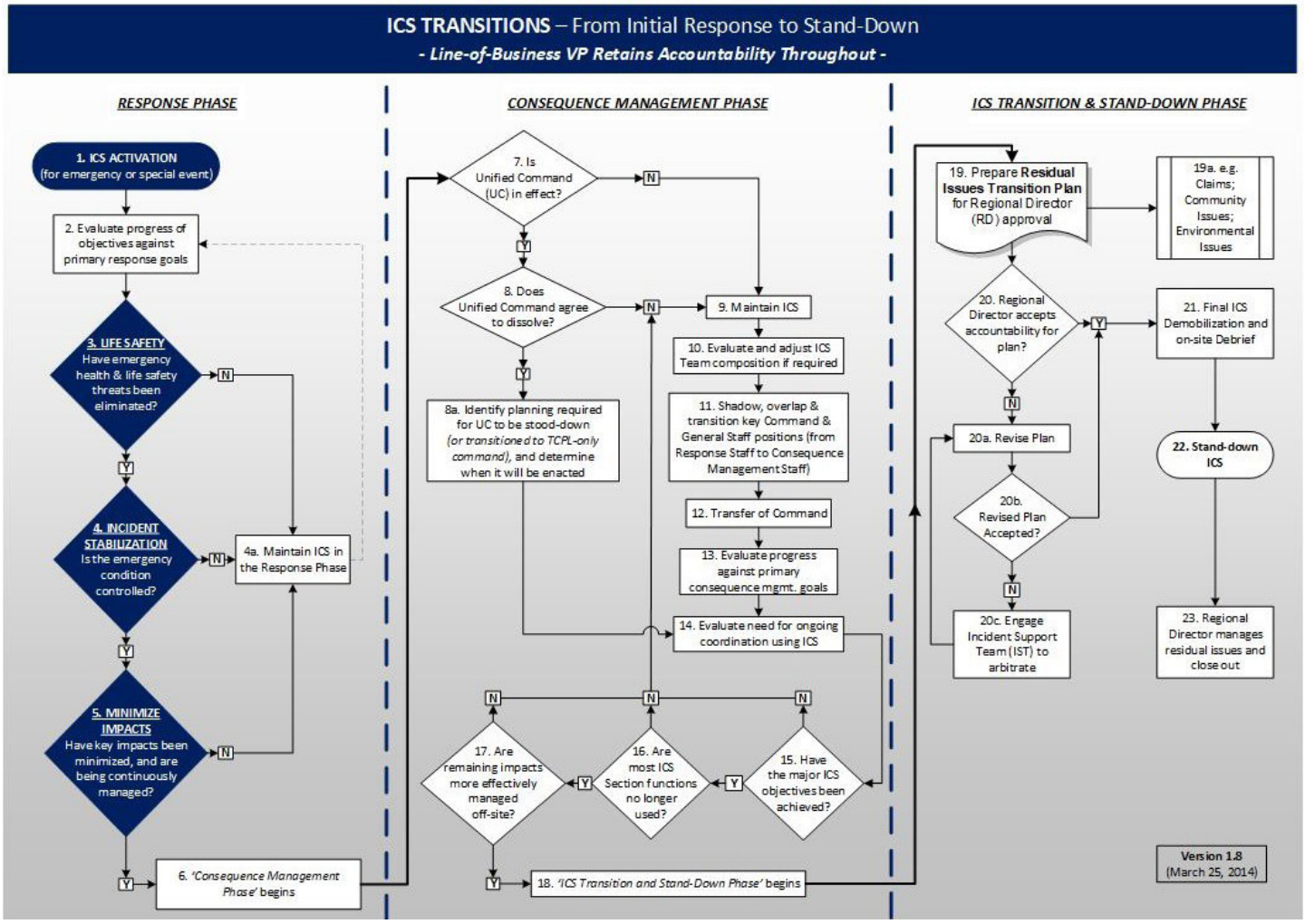
TC Energy's Communications Department is responsible for the development of communication materials and liaison activities with members of the media. All media requests are to be handled by the Public Information Officer (PIO) or a member of TC Energy's Communications. If any other member of TC

Energy's Incident Management Team encounters media, they are to provide TC Energy's Media Line (1-800-608-7859) toensure that the request is handled appropriately.

In all circumstances, a company statement on the emergencyshall be prepared and issued by TC Energy Communications. Statements are issued as soon as practical after an emergencyevent is confirmed.

If media have arrivedat the emergencysite, the PIO will liaise with Communications to determine if and when a statement will be issued. If a statement is issued, the PIO will deliver that writtenstatement.

3.9. ResponseTransition and Demobilization



The tables below explain each of the following three phases if ICS Transitions depicted in the diagram on the previous page of this Manual:

1. Response Phase
2. Consequence Management Phase
3. ICS Transitions and Stand-Down Phase

Response Phase	
The response phase is the traditional boundary of 'emergency' response. • In TC Energy's Gas Pipelines Operations, the response phase is typically bounded by scene securement and line isolation. Depending on the potential for harm to public or responders, it may also encompass activities up to and including line expelling. • In TC Energy's Liquids Pipelines Operations, the response phase is typically bounded by both primary and secondary containment of the released oil. • In TC Energy's Power & Storage Operations, the response phase is typically bounded by a re-establishment of system control, or the end of the primary consequence(s) of a loss of system control.	
Notes by Step #:	
Step 1	ICS is to be enacted at the field level: a. When an incident meets the definition of 'emergency' as defined in this Manual Section; b. For non-emergency circumstances or special events where the organization, communication or accountability would benefit from the use of ICS; c. Where operational circumstances have departed from normal operating conditions and Uncertainty exists regarding whether to enact ICS; d. For field exercises of the Emergency Management Program; or e. As otherwise directed or requested by a regulatory body, or TC Energy senior leader.
Step 2	Response-phase objectives established within the ICS Incident Briefing Form (ICS 201-2 Form, and later ICS 202 Form) are focused on and measured against the three key primary response goals.
Step 3	Life Safety is the foremost response phase goal. Ensuring life safety applies first to the responders, then to those adversely affected by the emergency, then to those who could become affected by the emergency.
Step 4	Incident Stabilization is secondary to life safety considerations. Control of the emergency is considered established where: • Incident source control has been achieved; and • There are sufficient resources (personnel and equipment) deployed and in reserve to respond to all present and reasonably foreseeable needs of the emergency phase. • If the emergency is not considered controlled, ICS is maintained in the response phase. For example, ICS positions are retained by the Incident Management Team, rather than transferred to a construction/project team. However, after life safety is assured and the incident is being stabilized, this is an appropriate time to consider putting qualified trainees into the senior ICS roles and allow mentorship/coaching by the more experienced members – up to and including a complete handoff.
Step 5	'Preservation of Property/Environment' is subordinate to 'Incident Stabilization', but often occurs concurrently. "Key impacts" means those categories by which emergency response objectives are prioritized for response action. Listed in general order, these are 1. Public; 2. Infrastructure; 3. Environment. The general order of response action may be modified by the

	Incident Commander following an assessment of severity, e.g. a large environmental hazard may be prioritized for action above a concurrent medium-sized infrastructure (property) issue. The decision to - and rationale for - changing general response order shall be documented, particularly where imminent likelihood is influencing a present severity choice.
Step 6	When the primary response goals (life safety, incident stabilization, property & environment preservation, stakeholder communication) have been addressed, there is no longer an emergency – but it remains an incident. The management of consequences arising out of the emergency begins. a. It is at this point that the planned and deliberate transition of personnel may start - ideally through the development of a rationale and a simple 'role transition plan.' *[This should not be confused with shift changes or relief personnel in the response phase, but rather the beginning of a planned assumption of the Consequence Management Phase by different players.]* For example, construction and project management personnel might assume deputy/assistant roles. Alternatively, they may assume Section Chief roles where assisted by regional personnel within the section or in deputy/assistant roles.

Consequence Management Phase Notes	
Summary: The consequence management phase is the management of an incident where the emergency priorities are considered complete or controlled. Some starting-point examples are where: • In a gas release, isolation and scene control is complete and repair/restoration activities begin. • In an oil pipeline leak, containment is complete and investigation, line repair, and remediation/restoration begins. • In environmental remediation, this would be considered the 'Interim Response Phase.'	
Notes by Step #:	
Step 7	Unified Command (UC) is considered in effect when TC Energy and one or more third parties (regulator; emergency services; another company) are co-commanding and sharing operational decisions.
Step 8	This step is designed to prompt the TC Energy Incident Commander to co-evaluate whether UC is still required/desired, and if so to be clear on the rationale to maintain or abolish. a. The purpose is to not pressure the stand-down of UC, but to ensure there is a predetermined, planned, orderly and communicated abolition rather than an abrupt termination with resultant communication and resource issues. The stand-down of Unified Command is a prompt for the evaluation of TC Energy's need to continue the use of ICS vs. moving to the Transition and Stand-Down phase. In most cases, ICS will typically be maintained longer than UC, and thus Steps 15-16 will redirect our actions back to Step 9.
Step 9	ICS is maintained by TC Energy if Unified Command is not or no longer in effect until a deliberate evaluation of its continued need occurs.
Step 10	Team adjustment may occur at any time during ICS. This is a prompt to do a deliberate evaluation, such as:

	a. Can more experienced people be relieved in favor of the initial response team now that the scope and urgency of the circumstances have diminished? b. Are there mentoring, coaching, developmental and direct practical training opportunities? c. Can an overlap between existing and incoming positions be established and staggered to ensure critical knowledge and capacity is maintained without drop in progress toward objectives?
Step 11	Similar to the considerations of Step 10, this step is designed to deliberately examine a clear transition and handoff of leadership roles from those who "stop" the emergency to those who "fix" the effects of the emergency, essentially as a project. In a pipeline incident, this is the planned transition from Operations to Construction/Project Management.
Step 12	Once key personnel are in position in Step 11, a transfer of responsibilities would typically occur from "those who stop" to "those who fix". As with Step 11, shadowing/overlap may occur. This step does not preclude transfers of command occurring earlier, including during the response phase. For example, command may transfer multiple times between Regional Operations personnel, in addition to regular shift-change transfers.
Step 13	Evaluation of progress against goals and objectives occurs throughout the ICS spectrum. However, this evaluation is a necessary precursor to evaluating the need for continued ICS use. For example, a consequence management goal may be "return line to service" or "prevent risk of further spill spread". If progress is well advanced (measured by the objectives for these goals), then a review of continued ICS use is warranted.
Step 14	Ongoing coordination of activities is required until the issues are identified. The purpose of this step is to evaluate whether ICS is required as the management system to do so. a. The Incident Command System shall be the prevailing management system used for management of incident consequences until the residual issues are assumed by Regional Operations and/or the Line-of-Business. b. For incidents involving Construction & Project Management teams, regular CPMS processes remain in effect except where superseded by ICS processes (e.g. chain of command, decision authorization, communication, forms/documentation, etc.).
Steps 15-17 are best considered in a Command & General Staff meeting. The decision remains with the Commander	
Step 15	As a management system, ICS brings attributes of communication, coordination, division of labor, and resource allocation. While there are many smaller objectives in the management of incident consequences (e.g. repair of local road used for truck access to site), the key ICS objectives (e.g. restore main line to service within 36 hours at 80%) are those identified as part of the Incident Action Plan (ICS 202 Form).
Step 16	ICS is modular. Its components are to be used as aids to help achieve incident objectives. Collapsing of positions and functions may occur throughout as progress is made. Some activities (e.g. Finance/Admin) may be collapsed in favor of offsite management. The intent is to evaluate the needs of the incident and consider the ICS structure in context of the alternatives.
Step 17	"Remaining impacts" include those impacts upon 'reputation', 'license to operate', and 'preserve public trust'. What is most effective should prevail over what is desirable.

Step 18	At this point additional scaling-back or transition of personnel may occur. As with Step 6, a simple 'role transition plan' with rationale would be prudent. Some examples of the scale-back/transition include: a. Construction and project management leadership might wish to scale back planning and logistics functions while concurrently exposing additional employees to the Operations Section during the remainder for developmental purposes. b. Command may be run weekday/daytime only; it might also be relocated to a Regional Office with a single person (Commander) in the ICS structure maintaining a log (ICS 214 Form) and conducting a daily teleconference with other parties as necessary.

ICS Transition and Stand-Down Phase Notes	
Summary: The ICS Transition & Stand Down phase denotes the planned stand-down of the use of ICS following the development and acceptance of a plan to manage those issues: • presently being managed under the IC System; • not yet addressed; • arising or returning.	
Notes by Step #:	
Step 19	The Residual Issues Transition handover is a document which guides the management of those issues that will remain after a stand-down of Incident Command occurs in Step 22. a. The objective is to identify the issues, determine a path for their management to conclusion, identify the responsible persons/parties, and establish accountability by the Regional Director to ensure completion. b. The Regional Director is both responsible and accountable for the management of all issues within the document unless responsibility is specifically identified and accepted elsewhere. c. A failure to advance or conclude key elements of the document may result in the re- activation of ICS by the Regional Director, with the resultant return to site by those parties previously responsible for Consequence Management. d. The document may refer to or use existing organizational processes (e.g. CPMS) where these are applicable, understood and agreed by the Regional Director. e. Where feasible, tolerance and acceptance criteria/levels for issue & action items are identified to establish a measurable close-out point. f. **Document Contents** – **example** categories of issues/action items: 1) Assumption of ICS roles/duties by persons/departments outside present ICS structure 2) Incident demobilization 3) Project Turnover Memorandum (PTM) 4) Restoration of service/Pre-Startup Safety Review/resumption of normal operations plan 5) Post-incident communication plan 6) Seasonal suspension of consequence management activities and return plan 7) Site security and patrol plan 8) Remediation & Reclamation 9) Environmental concerns

	10) Safety concerns/continuing safety plans 11) Criteria to satisfy management-of-change (MOC) processes 12) SAP/EHSM action items 13) Management of privileged and confidential information 14) Media/Community/Indigenous/land/landowner issues 15) Management of claims and invoices 16) Regulatory issues and interface point(s) 17) Investigation conclusion/follow-up g. For issues related to Claims, Community, Environment, etc., the Regional Director is accountable unless another function accepts accountability. In that case, the RD becomes a stakeholder ("I" rather than "A" in a RACI). This implies that multiple functions may have to be consulted in the processes of developing and accepting the plan.
Step 20	Those Consequence Management Phase personnel recommending the stand-down of ICS (e.g. Command and General Staff) consult the Regional Director in the development of the transition document to ensure clear and willing acceptance of the accountability. In order to ensure all issues are tracked and closed, the Regional Director serves as a single point of contact for the document once accepted. However, resolution of specific issues may be accepted by and assigned to many departments. This is to be documented. Once agreed, action items shall be entered into EHSM. a. If the document is not acceptable, the Regional Director is expected to clearly articulate reasonable acceptance criteria to the plan proponents. A negotiated plan may be required. b. If the revised plan is accepted, proceed to Step 21. c. If the revised plan is not accepted, the Regional Director is to schedule an IST call to arbitrate. The RITP proponents are to be included in the call. The IST may recommend additional revisions or impose a plan and move the process to Step 21.
Step 21	Following the acceptance of the document, Command is responsible to enact a demobilization plan for personnel, resources, and incident facilities. a. An on-site meeting shall be held between those personnel demobilizing and the regional personnel responsible for the area. Agenda: 1) Review of action items and responsible persons identified; 2) Review and acceptance of site/facility conditions and arising issues; 3) Review of key lessons learned and establishment of final incident debriefing date.
Step 22	Communicate within the organization – and to affected external parties identified in the document that Command has been stood down, along with how and who to contact if the need to re-establish Command is identified as a result of an unexpected situation. a. A date/time for an expected re-establishment of Command may be identified at this stage, such as immediately following ice break-up on a river spill. b. ICS can be stood-down and stood back up again as necessary, or transitioned down to a single person having returned to their regular duties. They still maintain both their Incident Commander title and their individual log (ICS 214 Form) for continuity purposes, while serving as a lead point of contact for any issues arising (similar to a project manager where the project does not presently have any active personnel).
Step 23	Any other issues shall be managed to conclusion according to the measures of the Transition Document. Incident Command can be re-established at the discretion of the Regional Director to more effectively manage new or unresolved issues/action items.

4. Emergency Response Implementation

During an emergency, collection of information, relaying of information, and activation of the Emergency Management Program must be performed in a fluid, effective, and efficient manner. This Section of this Manual describes the specific protocol and procedures employed in concert with the Incident Command System (ICS) to properly relay accurate information and respond to specific hazards.

During initial response, local field staff will be faced with the immediate response activities. This includes direct response activities such as containment and control, coordination of response activities with emergency organizations (i.e. evacuations, medical treatment of the injured, and housing of those displaced by the emergency and securing safety at the site), responding to public and media inquiries, and eventually restorationof the TC Energy asset. Local field staff shall be trained to deal with all
aspects of the initial response until further support can be provided by the EOC or Incident Management Team.

During emergencies employees shall always strive to display professionalism in response efforts and regardthe public and their safety concerns as paramount. They are trained to ensure a timely response is given by the Company or an assisting agency. Eachinquiry and follow-up action shall be coordinated through the affected Region or Facility. Citizens, the greater community, and provincial/state and federal officials should always be reasonably kept informed of the status of the emergency.

4.1. Emergency Response Procedures

When an incident is declared to be an emergency, the Emergency Management Program shall be promptly activated in accordance with the Emergency Management Process andas reflectedhere.

This process is composed of four main parts:

1. Assess
2. Activate Response
3. Mobilize Resources
4. Execute andMonitor Response
5. Stand Down

The table below describes the types of information collected and actions taken during these early phases of emergencyresponse.

Step	Information Collected/Actions Taken
Assessment • Assess situation • Identify and classify event using the Emergency Classification Matrix	Immediate emergency • System related • Non-system related Modifying conditions • Location • Time • Weather conditions
	Potential losses • People injuries/fatalities • Environmental losses • Adverse company exposure • Company assets
Activate Response • Confirm the emergency response process is activated, if required • Notify internal stakeholders, regulators, and external stakeholders and rightsholders.	Access and implement the applicable Emergency Response Plan(s) Establish action plans to: • Preserve the safety and health of the public and the company personnel. • Stabilize the incident. • Preserve property and the environment. • Communicate incident status to stakeholders. Procure resources to execute the action plan(s).
Mobilize Resources • Identify and allocate internal and external resources	External resources required • Police • Fire • Emergency Medical Services/Ambulance • Oil Spill Removal Organizations (OSROs)/Spill Contractors Response Assistance Agreements Internal Resources required • Incident Management Team • Technical Subject Matter Experts • Community Relations representative • Media/Public Information representative • Legal counsel • Safety/Security specialists
Execute and Monitor Response	Execute plan • Respond to emergencies following the Response Time Standard. • Develop and adjust contingency plans as incident evolves. • Continually assess appropriateness of response organization.
Stand Down	Return to normal operations • Record details of emergency and business continuity response in TC Energy's incident management software. • Implement plan to address residual issues.

Upon Initial Assessment of an incident, TC Energy will identify the Incident Classification using the matrix on the next page. During the Response and Consequence Management Phases of an emergency(as defined in section 3.6), this matrix shall be revisited to increase or downgrade the level of the emergency.

EMERGENCY CLASSIFICATION MATRIX				
Consequence of Emergency Rank			**Likelihood of Escalation Rank**	
CONSEQUENCE EXAMPLE	**RANK**		**RANK**	**LIKELIHOOD DESCRIPTION**
• No worker injuries. • No/low media interest. • Impacting only TC Energy property.	**1**		**1**	• Emergency is contained or controlled and is unlikely to escalate. • There is no chance of additional hazards.
• First aid treatment required for employee. • Local/regional media interest. • Incident has potential to impact off TC Energy property/ROW.	**2**		**2**	• Control of the emergency may have deteriorated, but imminent control of the hazard is probable. • It is unlikely that the emergency will further escalate.
• Employee requires hospitalization. • Regional/nati onal media interest. • Has impacted off TC Energy property - public health/safety could be jeopardized.	**3**		**3**	• Imminent and/or intermittent control of the emergency is possible. • TC Energy has the capability of using internal and/or external resources to manage and bring the hazard under control in the near term.
• Fatality. • National /international media interest. • Has impacted off TC Energy property - public health/safety could be jeopardized and environmentally sensitive areas are impacted.	**4**		**4**	• Emergency is uncontrolled. • There is little chance that TC Energy can bring the hazard under control in the near term.
CHOOSE THIS COLUMN'S RANK HERE >>		+		<< CHOOSE THIS COLUMN'S RANK HERE
TOTAL EMERGENCY SCORE	= _____			

EMERGENCY SCORE >	**Alert (Non-Emergency)** (Score = 2-3)	**Level 1 Emergency** (Score = 4-5)	**Level 2 Emergency** (Score = 6)	**Level 3 Emergency** (Score = 7-8)
RESPONSE TEAM POSTURE	Managed by Field Operations.	Initial IMT deployed. IST notified.	IMAT deployed. IST active. CMT notified.	IMAT deployed. IST & CMT active.
EOC POSTURE	None.	REOC active. CEOC Manager notified.	REOC & CEOC active.	REOC & CEOC active.
RESOURCE REQUIREMENTS	Immediate and locally available.	Begin to establish resources that may be required.	Limited supplemental resources required.	Significant incremental resources required.

4.2. Detection of an Emergency

An emergency impacting a TC Energy asset may be detected through a variety of means.

- Personnel on-site or in direct supervision of an asset may see something occur or identify an anomaly which precipitates an emergency; when personnel on-site or in direct supervision of an asset identify an emergency, it is categorized as Internal Detection of an Incident.
- TC Energy may become aware of an emergency through notification by a third party; this is categorized as External Detection of an Incident.

4.2.1. Internal Detection of an Emergency

TC Energy assets are monitored by control centers, Operations Personnel, and Aerial Patrol. It is the responsibility of personnel in these groups to recognize indications of an emergency. All indications of an emergency, including reported observation, are subject to confirmation; however, TC Energy's policy is to shut down an asset if any doubt exists as to the integrity of the asset. Shut-down of an asset resultant of a suspected emergency triggers either the Incident Management Program or Emergency Management Program.

4.2.2. External Detection and Notification of an Emergency

TC Energy may also learn of an emergency through external parties who detect and report emergencies. External parties are educated to notify TC Energy through the appropriate TC Energy Emergency Line if an emergency is suspected, allowing TC Energy to implement the Emergency Management Program as quickly as possible. In some cases, an external party may identify an emergency before or at the same time as TC Energy processes are triggered.

4.3. TC Energy Emergency Lines

If an emergency is detected by an external party, TC Energy is normally notified of this occurrence by a call placed (or re-directed) to TC Energy's Emergency Line (SureCall or appropriate Monitoring Center). TC Energy emergency line numbers differ depending on the asset impacted; these telephone numbers are listed in the table below. Emergency Line telephone numbers are also communicated to the public through traditional public awareness efforts, posting of Right-of-Way and facility signage, and a variety of other communication methods.

Emergency lines are the responsibility of the respective lines-of-business, overseen by their control centers. Emergency lines are answered by either controllers, monitoring center staff on behalf of controllers, or a third-party contractor and then transferred to TC Energy personnel. The scope of responsibilities includes:

- Where calls are answered by a third party, training their trainers/agents in TC requirements.
- Answering "TCE Emergency Line" incoming calls.
- Providing 24-hr trilingual (English, French & Spanish) call service (Surecall only).
- Documenting/recording the call.

- Sending the completed e-record and audio file of the emergency call to TCE CEOC Managers and to the respective Control Center/Control Room (via email.)
- Contacting the Control Center/Control Room and informing them of the emergency call.
- Participating in emergency exercises.
- Re-directing calls appropriately to other provided numbers if the call is not an emergency.
- Maintaining ability to retrieve archived emergency call files.

TC ENERGY – PUBLIC Emergency Telephone Numbers		
Asset *(#'s are PHMSA company ID's)*	**Emergency Telephone Number**	**Answered By:**
Canada		
CANADA PIPELINES • Coastal Gas Link • Foothills System • Grand Rapids Pipeline • Keystone (CA Oil) Pipeline System • MacKay East Pipeline • Northern Courier Pipeline • Nova Gas Transmission Ltd. System (NGTL) • TransCanada Pipelines Ltd. (TCPL) • Trans Québec and Maritimes Pipeline (TQM) • White Spruce Pipeline	**1-888-982-7222**	**3rd Party (Surecall – Calgary), then transferred to CA Gas Control or Oil Control**
POWER & STORAGE • Gas Storage (Edson, Crossfield) • Co-Generation (Host Facilities) • Becancour Generating Station	**1-866-920-9996**	**3rd Party (Surecall – Calgary), then transferred to P&S facility control room**
USA		
US LIQUIDS PIPELINES • TC Oil Pipeline Operations Inc (32334) • Keystone (US Oil) Pipeline System • Gulf Coast Pipeline (Keystone extension)	**1-866-920-0007**	**3rd Party (Surecall – Calgary), then transferred to Oil Control Centre**
US GAS PIPELINES		

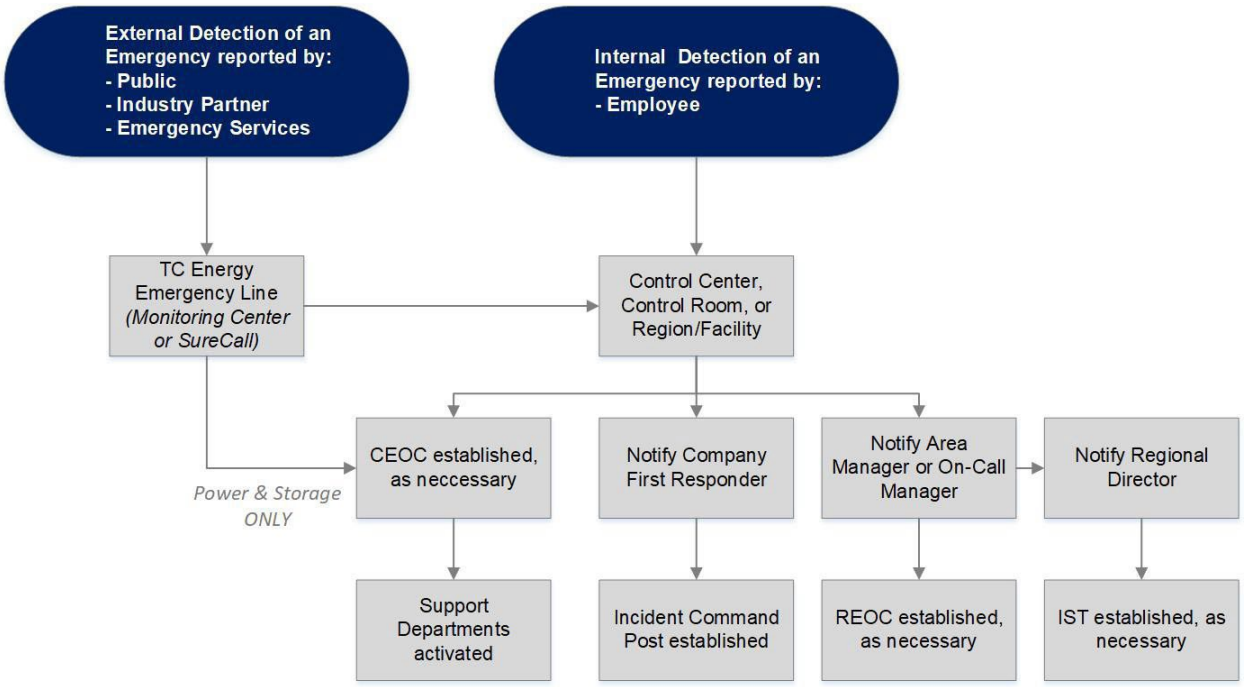
• American Natural Resources Corporation(ANR - 405) • ANR Storage (525) • Bison Pipeline • Blue Lake Gas Storage (30684) • Eaton Rapids Gas Storage Facilities (30689) • Gas Transmission Northwest (GTN-15014) • Great Lakes Gas Transmission Company (GLGT - 6660) • Iroquois Gas Transmission System • North Baja Pipeline LLC (31891) • Northern Border Pipeline Company • Tuscarora Gas Transmission Company (TGTC - 30838)	**1-800-447-8066**	**Answered directly by US Gas Control West Monitoring Center or Gas Control (Houston, TX)**
• Iroquois Gas Transmission System	*Not wholly owned.* *Direct: 1-800-888-3982.*	
• Tuscarora Gas Transmission Company (TGTC), old #	*1-800-894-1488.* *Discontinued; Do Not Use.*	
• Great Lakes Gas Transmission (GLGT), old #	*1-800-573-0640.* *Discontinued; Do Not Use.*	
• Columbia Gulf Transmission, LLC (2620) • Columbia Gulf Transmission LLC (39542)	**1-866-485-3427**	**Answered directly by US Gas Control East Monitoring Center (Charleston, WV)**
• Columbia Gas Transmission, LLC(2616) • Crossroads Pipeline Company, LLC (993) • Hardy Gas Storage Company • Millennium Pipeline	**1-800-835-7191**	
• Portland Natural Gas Transmission System (PNGTS)	**1-800-830-9865**	
MEXICO		
• All Gas Pipelines (EOM – TGNH – IEM – IMG; Guadalajara; Mazatlan; Sur de Texas – Tuxpan; Tamazunchale; Topolobampo; Tuxpan– Tula; Tula-Villa de Reyes)	From MEX: **01-800-111-3333** From CAN/USA: +011-52-55-5093-4541	**Answered directly by Mexico Gas Control Center (Mexico City, DF)**

4.4. Activation Criteria

The emergency response process is activated when an incident has been verified and meets the definition of an emergency. The emergency response process may also be activated at the discretion of Facility or Regional leadership if an incident has the potential to develop into an emergency.

4.4.1. Emergency Activation FlowChart

The Emergency Activation Flow Chart, shown below, illustrates how anemergency is reportedand how the report is escalated for emergencies at TC Energyfacilities.



As shown in the flowchart:

- When emergencycalls are received by an Emergency Line (Monitoring Center or SureCall) the recipient will contact the appropriate Control Center to pass on the incident information. Once the emergency has been confirmed, the Control Center will contact the appropriate line of business field technician/manager-on-call and CEOC Manager.
- If the Region or Facility office receives the call, they will activate their emergency processes and call their Control Center directly.
- If the call comes directly to the Control Center they would verify the emergencyand notify the appropriate CEOC Manager and Region or Facility On-Call Manager of the emergency.
- If a First Responder notices the emergencyand notifies the Control Center, the Control Center will verify the incident and notify an available site Incident Commander. The IC will assume command of the incident and initiate the incident response.

4.5. Initial Actions and Notifications

The following sectionexplains the initial actions and the notifications made once all data has been

received and the emergencyverified.

4.5.1. Gas/OilControlCenter Actions

When anemergency has beendetected, the Control Center makes the following notifications as required by procedure or as directed by the Incident Commander/First Responder:

- EmergencyServices, if requestedby the Company First Responder
- On-Call Manager for the affectedRegion or Facility
- RegulatoryCompliance On-Call Specialist
- CEOC Manager andprovide him/her withthe name of the On-Call Manager.

Additionally, the Control Room or Control Center may take some or all the following actions in accordance with procedures:

- Verify the authenticity ofthe emergencyusing:
  - SCADA system where available
  - First Responderverification
  - Reports from emergencyserviceagencies
    i. Note: The investigation includes immediate contact with the Public Safety Access Points (PSAP) (9-1-1 Emergency Call Center) serving the area to inquire if the PSAP has received any reports that indicate a possible pipeline emergency.
  - Reliable resources (Gas Plant Operators, other industry,etc.)
  - EmergencyLine (SureCall or Monitoring Center)
- Provide text and voice file to Regionor Facility On-Call Manager, upon request.
- Develop an isolation strategyand commence initial isolation in conjunction with the Region/Facility, prior to the establishment ofthe Region EOC (where applicable.)

4.5.2. Power & Storage Facilities ControlRoom

When a potential emergencyis detected by control center instrumentation, a call is receivedfrom a First Responder, or a call is received from SureCall, the Controller has the responsibility to send personnel to investigate. If an emergency is confirmed, a call is made to the on-call manager to dispatch a qualified site IC who travels to the incident location and assumes control of the emergency. The IC's responsibilities include but are not be limited to:

- Ensuring the safetyof onsite personnel, response personnel and the public
- Initiating calls toemergencyservices asnecessary
- Activating the Oil Spill Response Organization(OSRO) or spill contractor if appropriate
- Initiating regulatory notifications by ensuring contact has beenmade withthe appropriate Regulatory Compliance on-call specialist
- Calling the On-Call CEOC Manager to activate the CEOC
- Setting up and populating an Incident CommandPost
- Notifying their leader and senior leaders

4.5.3. Affected Region or Facility

When an emergency has been detected by or reported to Operations personnel, the Region or Facility is responsible to complete the following actions:

- Call the appropriate Control Center and provide them with the information gathered
- Dispatch a team to verify the report.
- Establish the emergency communications conference call.
- If the emergency is verified, set up an on-site Incident Command Post.
- Activate the REOC if appropriate.
- Ensure the CEOC has been activated by the Control Center; if it has not been activated, the REOC Manager or Incident Commander requests the name and contact number of the CEOC Manager and contacts them directly.

The notification and reporting process begins once an emergency has been confirmed and an Incident Commander/First Responder has assumed command of the incident. Notifications may be made by the IC or a designate.

Regardless of the type of facility experiencing an emergency, the following parties shall be notified that an emergency is in progress in accordance with procedures:

- CEOC On-Call Manager and REOC Manager/Facility Manager to activate TC Energy's emergency response process and notify required support departments.
- Internal management and senior executives to establish an Incident Support Team (IST) for information and development of response strategies if required.
- External regulatory agencies to fulfill regulatory obligations and allow investigation if required.
- Affected community members to provide information regarding the emergency and potential dangers.
- TC Energy customers, if system impacts result in flow restrictions.
- Emergency Response Contractors, Cooperatives, or response assistance agreement partners to procure the resources needed to respond to the emergency.

4.6. Regulatory Notification & Reporting Requirements

Several groups within TC Energy have responsibility to notify regulators following an emergency. Below, a sample and general overview of the regulatory notification process is included for Gas Pipelines. Oil Pipelines and Power & Storage facilities shall refer to their local emergency response plans for regulatory notifications and reporting requirements.

4.6.1. Canadian Emergency Notifications and Reporting

Canadian Emergency Notifications and Reporting	
For CER Regulated Assets	
REOC	*Canadian Regulatory Compliance*
• Notify the appropriate health, safety and environmental regulatory agencies.	• Notify the (Canadian) Transportation Safety Board (TSB) 24-hour Occurrence Hotline (819.997.7887) (preferably within 1 hour but no later than 3 hours

• Notify local emergency responders if they have not already responded to the site.
• Make a courtesy notification to the provincial regulatory if applicable.
  ○ AER Emergencies: 1-800-222-6514
	after incident discovery) of emergencies occurring on assets under:
	  ○ NOVA Gas Transmission Ltd,
	  ○ Foothills Pipe Lines Ltd,
	  ○ TransCanada PipeLines Limited(Canadian Mainline),
	  ○ Great Lakes Pipeline Canada Ltd,
	  ○ Trans Quebec & Maritimes Pipeline Inc. or
	• The TSB shall notify the Canada Energy Regulator (CER) pursuant to the Memorandum of Understanding between the TSB and the CER.
	• Process all verbal and written requests for additional information from either TSB or CER.
	• Enter incident details in the CER's Online Event Reporting System (OERS) no later than 3 hours after incident discovery.
	• Notify the CER (403.807.9473) of any incidents involving personnel in the Calgary Corporate Office and Regional Offices. The CER shall notify Employment and Social Development Canada (ESDC) of the incident.

For Provincially Regulated (i.e. AER) Pipeline Assets	
REOC	*Canadian Regulatory Compliance*
• Notify the appropriate health, safety and environmental regulatory agencies. • Notify local emergency responders if they have not already responded to the site.	• Notify the Alberta Energy Regulator (AER) 24-hour Response Line (1-800-222-6514, Energy and Environmental Emergency Response) of emergencies occurring on the TransCanada Pipeline Ventures Ltd system, Grand Rapids Pipeline, Northern Courier Pipeline and White Spruce Pipeline. • For the MacKay East Pipeline, contact PetroChina Canada (owner) on 1-877-479-5248 as they are responsible for reporting an emergency to the AER. • Immediately notify the AER Emergency Line: 1-800-222-6514 • Place a courtesy call to the Regulator's Head Office to ensure proper messaging was forwarded.
For Provincially Regulated (i.e. AER) Power & Storage Assets	
Facility	
• Immediately notify the AER Emergency Line: 1-800-222-6514 • Notify the appropriate health, safety and environmental regulatory agencies.	

- Notify local emergency responders if they have not already responded to the site.
- Place a courtesy call to the Regulator's Head Office to ensure proper messaging was shared by the Facility.

Guidelines for Reporting to Canada Energy Regulator

CanadianRegulatoryCompliance shall notify the TSB Reporting Hotline (819) 997-7887) in the event of:

- A death or serious injury (as defined in the OPR or TSB Regulations);
- An unintended or uncontrolled LVP hydrocarbon release in excess of 1.5 m^3 that leaves company property or occurs on or off the right-of-way (liquids pipelines);
- 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 which meets certain criteria;
- A significant adverse effect on the environment;
- A rupture which immediately impacts the operation of a pipeline segment such that the pressure of the segment cannot be maintained;
- A toxic plume (e.g. hydrogen sulfide or smoke) that causes people, including employees, to take protective measures (e.g. muster, shelter-in-place or evacuation);
- a heightened response increased public attention, and increased media attention involving federally-regulated pipelines.
- a third party unauthorized activity affecting the safety and integrity of a federally-regulated pipeline when the third party is unwilling to take direction from company personnel to cease and desist further operations.

4.6.2. US Pipelines Emergency Notifications and Reporting

US Pipelines Emergency Notifications and Reporting

Regional Emergency Operations Center

The US Regional Compliance Specialist, On-Call Compliance Specialist, US Regulatory Compliance Manager, or Area Manager shall verbally, or electronically, notify the appropriate regulator in the event of an emergency. For emergencies on the Portland Natural Gas Transmission System, the Gas Transmission Northwest System, Tuscarora, Great Lakes Gas Transmission, Northern Border, ANR North Baja, Columbia, and Keystone emergency notifications shall be directed to agencies below in accordance with local Emergency Response Plans:

National Response Center	800-424-8802 http://www.nrc.uscg.mil
Department of Transportation, Pipeline and Hazardous Material s Administrati on (PHMSA) Accident Investigati on Division	888-719-9033
Federal Energy Regulatory Commission	202-502-8390 888-889-8030
Department of Energy, Emergency Operations Center	202-586-8100
All applicable State Emergency Response Agencies (see Tier 2 Emergency Response Plan, Response Zone Annex)	

4.6.3. Asset Regulators

Federal Regulators also have specific responsibilities during TC Energy emergencies. The table below describes the responsibilities of TC Energy's primary Federal Regulators.

Canadian Federal Regulatory Agencies – Roles & Responsibilities
The **Transportation Safety Board's (TSB)** role is to advance transportation safety through the investigation of transportation occurrences in the marine, pipeline, rail and aviation modes
The **Canadian Energy Regulator**'s (CER) role and responsibilities generally include: • Ensuring that people are safe and secure, and that property and the environment are protected. Any time there is a serious incident, the CER Inspectors may attend the site to oversee a company's immediate response as the Federal Incident Commander in Unified Command with TC Energy. The CER will require that all reasonable actions are taken to protect employees, the public and the environment. Further, the CER will verify that the regulated company conducts adequate and appropriate clean-up and remediation of any environmental effects caused by the incident And/or, as lead regulatory agency, the CER: • Monitors, observes and assesses the overall effectiveness of the company's emergency response in terms of: o Emergency Management o Safety o Security o Environment o Integrity of operations and facilities; and o 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 • Ensures appropriate repair methods are being used • Ensures appropriate environmental remediation of contaminated areas is conducted • Coordinates stakeholder and rightsholders feedback regarding environmental clean-up and remediation • Confirms that the company is following its Emergency Procedures Manual (s) commitments, plans, procedures, and CER regulations and identifies non-compliances • Initiates enforcement actions as required • Approves the restart of the pipeline

US Federal Regulatory Agency – Roles & Responsibilities
The United States Coast Guard (USCG) and the United States Environmental Protection Agency (US EPA), under the mandate of the Oil Pollution Act of 1990 (OPA'90) have the responsibility for the prevention, preparation for and response to oil spills to navigable waters of the U.S. The USCG is the lead federal agency for response to hazardous substance spills occurring on U.S. coastal waters and deep water ports, while the EPA is the lead federal agency for spills into and around inland waterways.

The USCG, under OPA '90, has been given jurisdiction over Marine Transportation Related (MTR) Facilities. MTR facilities by federal definition include all vessels and those facilities located on coastal waters that "use, store, ship or transfer oil." All MTR facilities that meet the USCG definition of Significant and Substantial Harm must have a USCG approved Facility Response Plan and Emergency Response Action Plan. They must also prove that they have the means to respond to a Worst Case Discharge of oil. If the facility transfers oil over or near water, they must also have an approved Operations Manual. The USCG, as the Federal On-Scene Coordinator, will work with state and local agencies and TC Energy, in response to oil spills at facilities under its jurisdiction. They are a response agency in that they, when necessary, will provide human and material resources to assist in the response.

The EPA (under the Oil Pollution Act, 1990 [OPA '90],) has been given jurisdiction over Non-Marine Transportation Related (NMTR) facilities (i.e. any facility that is not an MTR). NMTR facilities that meet the EPA definition of Substantial Harm must have an approved Facility Response Plan and Emergency Response Action Plan. They must also prove that they have the means to respond to a Worst Case Discharge of oil. In addition, any facility that has an aggregate aboveground oil storage capacity of 1,320 gallons or a combined totally buried oil storage capacity of 42,000 gallons and has the potential to pollute navigable waters must have a Spill Prevention Control and Countermeasure (SPCC) plan. The EPA, as the Federal On-Scene Coordinator, will work with the state and local agencies and TC Energy to respond to oil spills occurring on land or to inland waterways. They are a response agency in that they, when necessary, will provide human and material resources to assist in the response.

Both the USCG and the EPA require a vigorous training, drill and exercise program that is outlined in the National Preparedness for Response Exercise Program (PREP) guidelines.

The **Pipeline and Hazardous Materials Safety Administration (PHMSA)** is the US federal regulator of pipelines. As such, PHMSA is notified of pipeline emergencies and may be closely involved in monitoring TC Energy's response to an emergency; however, PHMSA is not traditionally a response agency and is not expected to provide human or material resources to assist in response.

Mexican Federal Regulatory Agencies – Roles & Responsibilities

The **Safety, Energy and Environment Agency (ASEA -** Agencia de Seguridad, Energía y Ambiente). Part of Environment Ministry (SEMARNAT), its goal is ensuring operational safety and environment protection for the hydrocarbon sector.

ASEA provides guidelines and regulations for:

- Environmental impact
- Environmental risk
- Emergency Response Protocols (and plans)
- Greenhouse gases
- Management systems (SASISOPA)
- Non-compliance inspection, monitoring, and penalties
- Incident investigation

For incidents and emergencies ASEA shall be notified in accordance with the regulations.

The **Energy Regulatory Commission (CRE -** Comisión Reguladora de Energía) regulates gas, refined, hydrocarbon and electricity industries. CRE oversees natural gas transportation activities such as:

- Maintenance

- Transportation tariffs
- Low volume interconnections
- Approves the restart of the pipeline
- Approves pipeline / facility integrity

CRE shall be notified for any natural gas transportation activities endangering public health and safety.

Civil Protection (PC - Protección Civil) is the Mexican governmental emergency management organization, represented at federal, state and local government levels. PC is responsible for risk management to ensure people and property safety through:

- Emergency prevention programs
- Emergency exercise evaluation
- Emergency response coordination activities
- Approving specific emergency plans (PIPC) and response collaboration agreements

PC is an emergency response and emergency management organization and are responsible for declaring an emergency alert. In some locations Civil Protection and Fire Department are a co-joined response agency; in most they are distinct.

4.7. Response Time Standard (RTS)

TC Energy recognizes safe, reliable, and effective response to an emergency event is critical to meeting Our Commitment. In the absence of an industry standard, TC Energy has adopted an internal Response Time Standard as a goal post to assess response effectiveness.

The RTS is a recommended method to assist Business Units in the review and assessment of emergency response activities after the event has occurred. The information gathered in this review assists in the identification of lessons learned, corrective actions, training, and resource allocation strategies. This RTS may be adjusted to meet specific Business Unit needs and applied in the respective Tier II Emergency Response Plans when applicable. It is not required for all areas, as it may be infeasible due to geography or other limiting factors.

Response Time Standard Table for Pipelines			
Phase	***Response Time***	***Actions***	***Description***
Phase 1	Initiated immediately upon recognition of a pipeline emergency	Immediate response actions	Initiation of immediate response actions/procedures. Control Center/On-site initiation of actions to control the source, dispatch emergency responder, remote isolation, or shutdown where SCADA Telemetry is available to do so.
Phase 2	2 Hours	Emergency Response Activities	Establishment of a response management system is prioritized immediately upon recognition of an emergency. The establishment of the Incident Command System is initiated no more than two hours after recognition of a pipeline emergency. Initiation of ICS can be confirmed through identification of an Incident Commander, preparation of the ICS 201 Form or any other ICS driven activity.
Phase 3	3 Hours	Staff on-site	Company First Responder on scene within 3 hours.
Phase 4	6 Hours	Initial Emergency Response Equipment on-site	Initial response equipment is on-site no more than 6 hours from recognition of an emergency with additional supporting requirements (in the case of oil) taking no more than 72 hours. This can be achieved with in-house, mutual aid, spill cooperatives or contracted response equipment. Emergency Response equipment for oil is based on a calculated formula that determines worst case discharge amounts, which, in turn, determine the planned amount of equipment for response.
Note: An average travel speed of 60km per hour (37.3 mph) has been used to develop this standard to allow use of distance and speed to determine the amount of time it would take to dispatch resources (people and equipment) to an emergency location.			

In all cases, safety of employees and the public remains the priority in response to an emergency; safety will not be compromised to meet the Response Time Standard. External factors and conditions must also be taken into account when evaluating the rapidness or effectiveness of a given response, such as the following examples;

- Remote locations and locations with road accessibility
- Time of day
- Weather conditions
- Past weather conditions (road closures, site not accessible due to flooding, etc.)
- Communication infrastructure integrity (i.e. systems compromised due to infrastructure outages)
- Transportation issues – (i.e. road closures, traffic accidents, rush hour)
- Site seizure
- Site security (sabotage, protest activity, etc.,)
- Other agency/government interference

4.8. Repair and Restoration

The Repair and Restoration Phase of the Emergency Management Program generally focuses on restoration of the environment and the TC Energy asset impacted by an emergency. This can only be completed after the safety of personnel, neighboring communities, and the environment are confirmed and stabilized through the ICS process.

Repair and Restoration activities will begin soon after the emergency response process has begun to return the affected asset to service as soon as safely possible. When ICS is in place, the Operations Section Chief is responsible to ensure Repair and Restoration activities are integrated into the larger emergency response process. Repair and Restoration cannot occur in isolation from the emergency response process.

Repair, which could commence before the emergency is contained and controlled, involves:

- Repair of the asset to a level where company operations can resume without posing risk to people, public facilities, the environment, or company operations.
- Ordering of emergency piping, supplies, contractors, etc.
- Physical repairs will occur after the emergency has been contained and controlled.

Restoration includes:

- Restoration of the site to a level acceptable to governing bodies
- Monitoring the environment to ensure it is back to pre-emergency state
- Involving the appropriate personnel who may be different than those involved in the repair phase.
- Collaborating with groups involved in other elements of the emergency response and repair processes.
- Long term efforts, after emergency response and repair have been closed.

Activating the Repair and Restoration Process

The CEOC Manager shall conduct a round table to determine which Support Department has the largest role during the repair and restoration phase (usually Engineering for operational emergencies or Human Resources for emergencies involving serious injuries or fatalities). The Support Department EOC Representative determinedto have the largest role during repair and restoration will communicate their intention to support the Operations Section Chief either remotely or by filling a role in the IMT. The decision to fill a role on the IMT must be validated by the Operations Section Chief before resources are deployed.

Once the structure of the Operations Section, accounting for Repair and Restoration, has been determined) the Support Department EOC Representative shall provide the EOC Manager and Incident Commander with further contact information to ensure continued communication when the CEOC is standing down.

4.9. Departmental Profiles of Service

The Profile of Service illustrates the emergency activities and communications of each Support Department. Each Support Department shall have a functional plan defining how these activities and communications will be executed.

Each of Support Department has a designated representative for the CEOC, and each Support Department can be used as a resource for the REOC or the IMT.

4.9.1. Calgary Support Department Profiles of Service

- Administrative Support (005862925)
- Calgary CEOC Manager (005862672)
- Calgary Gas Control Center (005862762)
- Calgary Oil Control Center (005862795)
- Canadian Regulatory Compliance (005862748)
- Corporate Security(13784373)
- Customer Service (005862755)
- Health and Safety (005862768)
- Human Resources (005862772)
- Environment Land and Indigenous Relations (005862793)
- Legal (009286517)
- Oil Scheduling (006822752)
- Public Affairs and Communications (005862751)
- Technical Services – Canadian Gas Transmission(005862759)

4.9.2. Houston Support Department Profiles of Service

- Administrative Support (006093555)
- Environmental Services – Gas East (06093534) (009322599)
- Houston CEOC Manager (007892919)
- Land Management (1008520764)
- Public Affairs and Communications (005862751)
- Corporate Security(13784373)
- US Compliance (006110614)
- US Legal (006109122)
- Human Resources (005862772)

4.9.3. Mexico Support Department Profiles of Service and Functional Plans

The Mexico EOC Manager is responsible to document the key emergency support roles of participating EOC departments/functions. This shall form part of their EOC role kit on the emergency management website.

Core EOC member departments shall maintain a functional plan outlining their checklists, tools, and duties by which their EOC members will ensure consistent and efficient support to the Incident Commander and EOC team.

Secondary EOC support departments attend EOC activations on an ad hoc (as needed) basis as subject- matter-experts (SMEs). These departments may have functional plans if desired.

4.9.4 Matrix for Support Department Notifications

Each of the Support Departments has identified, within their Profile of Service, who they shall notify in an emergency. The matrix below shows which Support Department (i.e. notifier) is responsible to notify each stakeholder (i.e. recipient of notification):

Matrix for Support Department Notifications Notifier >>> Recipient of Notification	**Control Center/Control Room**	**Customer Emergency/Commercial Services**	**Corporate Security**	**Emergency Management**	**Environmental Services**	**Health & Safety**	**Human Resources**	**Indigenous Relations**	**Land**	**Legal**	**Stakeholder Relations &**	**Regulatory Compliance**	**Technical Services**	**Field Operations (Region or Facility)**
VP in Department Chain	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
Director or Department	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑	☑
Provincial/State Labor Board(s)						☑								
Provincial/State Environmental					☑									
TSB* (CDN)												☑		
CER (CDN)												☑		
DOT-PHMSA (US)												☑		
AER**												☑		
EMS														☑
Private Security			☑											
Community Authorities								☑						
Producers		☑												
Customers	☑													
Landowners									☑					

* Aviation will contact Canadian Transportation Safety Board (TSB) when there has been an aircraft emergency.
** Canadian Regulatory Compliance notifies the AER for pipeline emergencies. Facilities may notify the AER for Gas Storage.

4.10. Documentation

Proper documentation during emergency response is vital. In early phases of an emergency, high stress levels and fatigue decrease responder's ability to accurately recall actions and information. As the incident grows, documentation becomes an important means of sharing information with internal and

external stakeholders and rightsholders. Finally, when an emergency is closed, documentation becomes the permanent record of the incident and subsequent response. Considering all these potential uses of information, it is important that all TC Energy personnel are diligent in following the documentation guidelines in this Manual.

Due to the importance of proper documentation and note taking during an emergency, TC Energy has prepared Note Taking Form and Completion Guidelines During an Emergency(004825243) to assist all TC Energy personnel with understanding the importance, concern, and legalities of proper record production.

4.10.1. Emergency or Exercise Debriefings and Documentation

Following all emergency responses and exercises, participants shall conduct a debriefing, or after actions review. A debriefing is a structured process for analyzing what happened, why it happened, and how it can be done better by the participants and those responsible for response to the next emergency.
Formal debriefing is run by a facilitator and can be chronological or tightly focused on a few key issues selected by participants. The findings from the debriefing are captured in the Debriefing Template (004460398).

Debriefings evaluating the:

- Efficiency and effectiveness of response
- Effectiveness and use of management systems (e.g. ICS, Safety), special procedures, Incident Action Plans, emergency response plans, and response-support documentation
- Achievement of (goal-focused) objectives and correct use of strategies and tactics
- Exercise planning process

The Exercise and Emergency Debriefing Template (004460398) is used to document the three main types of debriefings:

- Internal debriefings are used to discuss all aspects of the Company's emergency preparedness and response. One composite debriefing shall be held with key representatives from each internal debriefing session to compare notes and combine all information, facilitating a complete review of the event.
- External debriefings are used to discuss only those aspects related to company-external agency interaction and communications.
- Media debriefings shall be held separately from all other debriefings. Where held, media debriefings focus on the Company's interaction with the media. No other discussions will take place regarding deficiencies or third-party performance issues. No opinions are to be offered regarding the state of preparedness of other participating agencies during a media debriefing.

Whenever feasible, Debriefing Templates are completed for all elements activated within the response organization; they are distributed and filed in SAP Environmental, Health and Safety Management (EHSM) within two weeks of the conclusion of the exercise or emergency.

Basedon the debriefings from emergencies and exercises, stakeholders make recommendations for improvements to local and company emergency response procedures. The Emergency Preparedness Coordinator (EPC) is accountable to properly document all emergencies and exercises. The Emergency Management Team canaid in the development of this documentation.

- The Debriefing form will be prepared which identifies the key learnings and actions arising from the evaluation process. Eachaction listed on the debriefing form will be dated and assigned.
- The EPC shall ensure the debriefing forms are prepared and recorded in SAP EHSM within 30 days of the exercise debrief. If the debriefing form includes recommended improvements to the Emergency Management Program, these actions are the responsibility of the EmergencyManagement Team.
- Each Field/Support Department Director is accountable to ensure the actions affecting their area areimplemented.
- All action items will be documented and managedthrough SAP EHSM.
- The EPC is accountable to ensure all actionitems are completed.
- For actual emergencies, the Regional Director must review and approve the Debriefing form before it is finalized.

All Company personnel involved in responding, managing, or performing a support function during an emergency or an exercise (ICP, Region/Facility, Corporate Emergency Operations Center (CEOC), and support department on-call staff) shall be invited to and participate in their respective debriefing. Non-company personnel will also be invited to participate as appropriate.

Participants are responsible to come preparedwith complete details of their activities during the emergencyor field exercise, andwhere possible, to provide supporting documentation.
For external participants attending exercises or respondingto emergencies, comments and feedback shall be captured on the External Agency Feedback Form (009097294); these forms shall be collected and reviewed before a last associateddebriefing occurs.

Additional instructions for completing the templates canbe found on the templates itself.

4.10.2. Documentationand Record Keeping

In many cases, properly documenting an emergency or exercise is just as important as conducting the event itself. Proper documentation allowsTC Energy to prove compliance withregulations and provides a forum for vetting and addressing issues which arose during an event.
All emergencies and exercises are documented throughSAP; documentation specifies:

- The type ofevent
- Date andtime of the event
- A descriptionof the event
- The objectives met in the event
- Lessons learnedand associatedactionitems.

Exercise documentation shall be maintained as follows, in accordance withthe Debriefing Template:

- All exercises must be documented and filed in SAP EHSM in accordance with the guidance in the Quick Reference Guide for EHSM Emergency Exercise Entries (1006366106).
- It is the responsibility of the EPC or the person planning the exercise to complete and attach the exercise documentation to the EHSM record.
- All action items must be documented in EHSM withthe responsible a person assigned, and a due-dateestablished.

Exercise Type	Participant Sign-In Sheet Required?	Part I: Exercise Authorization Form Required?	Part II: Exercise Planning Form Required?	Part III: Debrief Form Required?
Qualified Individual Notification Exerci se (Liquids Pipelines)	Yes	No	No	Yes, unless Everbridge report includes all required information.
Tabletop Exercise	Yes	No	No	Yes
Equipment Deployment Exercise (Liquids Pipelines)	Yes	No	No	Yes
Third Party Contractors Assessment Exercise for Oil Pipelines (Liquids Pipelines)	Yes	No	Recommended	Yes
Field Exercise	Yes	Yes	Recommended	Yes
Emergency	Yes	No	No	Yes

5. Response Resource Management

Ensuring access to response resources, including both personnel and equipment, is an essential element of the Emergency Management Program. This section describes TC Energy's efforts to ensure adequate resources are available for response and provides guidance for procurement of unforeseen resource needs during an emergency.

5.1. Resource Management

Each TC Energy Region and Facility is responsible for ensuring they have access to adequate response resources. Additionally, each Region and Facility is responsible for ensuring compliance with any applicable regulations which specify quantity or quality of response resources.

5.1.1 Regulations, Guidelines, and Industry Best Practices

Resource management includes ensuring an appropriate quantity of response equipment is available and the equipment can be on-site within a reasonable amount of time, including assessment of physical distance from the site and activation processes and timelines.

Regions and Facilities shall ensure they are able to meet Response Time Standards (as described in Section 4 of this Manual), if the standards apply to the Region or Facility. Ensuring ability to meet response time standards may require TC Energy to base employees in strategic locations, modify on call policies, move company owned equipment to remote areas, and establish new contracts to limit gaps between resource caches.

At TC Energy, US oil storage and transportation assets apply the United States Coast Guard (USCG) minimum equipment and response time requirements, defined in the 'Guidelines for the U.S. Coast Guard Oil Spill Removal Organization Classification Program'.

5.2. Response Resources

TC Energy allows Regions and Facilities to meet response resource requirements in a variety of ways. However, the general resource philosophy at the company level guides Regions and Facilities to procure resources through the following prioritized means:

1. Maintaining contracts with qualified equipment rental companies, spill removal organizations, and environmental contractors
2. Participating in Cooperatives with industry partners
3. Owning and maintaining response equipment (Company Owned Resources)
4. Establishing Response Assistance Agreements with neighboring industry partners

Note: During an emergency, TCPL may share services and resources with an Affiliate without a Services Agreement on a Cost Recovery Basis. For more information, refer to the TCPL Mainline Inter-affiliates Code.

5.2.1. Contract Resources

TC Energy maintains contracts withOil Spill Removal Organizations (OSROs) and other response contractors that canrespond to all TC Energy emergencies including, but not limited to the following:

- National Response Corporation Spill Response Contract Certification; US(009215655)
- Quantum Murray Letter of Response; Canada (009215659)

Additional contracts have been established with equipment rental companies, spill removal organizations, and environmental contractors; these contracts should be referenced in the local or asset specific emergencyresponse plans for the assets supported by contract resources.

When feasible, contract resources shall be vettedand approved through Supply Chain's contractor approval process prior to an emergency. However, during emergencies, whenapproved contractors are not available in a timely manner, resources canstill be accessed. For further explanation, see Emergency Procurement Section of this manual.

5.2.2. Company Owned Resources

TC Energy owns and operates emergencyresponse equipment. TC Energy's company owned response equipment is contained within warehouses or response trailers strategically staged to expedite response; this considers asset-based risk and availability of contract, mutual aid, and cooperative resources.

Company Owned Response Resources canbe requestedfor response to any TC Energy emergency by the Incident Commander through the REOC, or through the CEOC directly if there is no REOC involved in the response.

The links below include equipment summaries detailing location, type and amount of equipment stored in the company owned response trailers.

- Canada – Company Owned Spill Response Equipment (009215856)
- US – Company Owned Spill Response Equipment (009215883)

TC Energy owned equipment may be deployed to Mutual Aid Partners and governmental agencies for non-TC Energy emergencies; Regional Leadership accountable for the specific resource shall approve loaning equipment to third parties. Before loaning equipment, consideration is given to maintaining TC Energy's ability to respond to a potential internal emergency.

Flyaway Kits

TC Energy's Corporate Emergency Management Team maintains Flyaway Kits which include many of the resources required by an IMT. The Incident Commander, REOC, or CEOC can mobilize these kits by contacting the Corporate Aviation EPC. The Business Unit requesting and using these kits is responsible to restock and return the kits to their assigned location at the conclusion of the

emergency.

The content of these kits is listed online:

- Canada Flyaway Kit Inventory (1014728803)
- US Flyaway Kit Inventory (1014697438)

Unmanned Aerial Vehicles

TC Energy's Corporate Aviation department maintains several Unmanned Aerial Vehicles (UAVs), or "drones", and the Company's pilots are certified to operate these aircraft. The Company's UAVs collect videos and photographs which are useful for reconnaissance and gaining situational awareness during emergencies.

5.2.3. Cooperatives

Industry Cooperatives are industry funded organizations which maintain a cache of equipment available for use by any members of the cooperative. Operation of cooperatives is funded through annual dues; these dues fund procurement and maintenance of equipment, and sometimes include an annual training exercise. Typically, cooperatives offer only equipment, not equipment operators or personnel with subject matter expertise to operate equipment; in this case, TC Energy must ensure availability of equipment operators from another source.

TC Energy is a member in good standing with numerous cooperatives in Canada. The cooperatives allow industry partners capable of responding to an emergency to work collaboratively to achieve the most efficient response. These cooperatives are listed below for reference:

- Western Canadian Spill Services Ltd.
  - Alberta Area IJ Oil Spill Cooperative
  - Alberta Area S Oil Spill Cooperative
  - Alberta Area U Oil Spill Cooperative
  - Alberta Area VR-1 Oil Spill Cooperative
  - Alberta Area Y Oil Spill Cooperative
- Saskatchewan Area 3 Oil Spill Cooperative
- Saskatchewan Area 4 and 5 Oil Spill Cooperative
- Saskatchewan Area 6 Oil Spill Cooperative
- Manitoba Producers Oil Spill Cooperative

For more information on the cooperative and associated training opportunities and specific equipment available, access the cooperative's website.

5.2.4. Publicly Owned Resources

Public agencies, including federal, provincial/state, municipalities and local emergency response agencies, often retain their own emergency response equipment. While TC Energy will not rely on these resources to respond to a Company emergency, they may be used if the agency owning the resources wishes to engage in the response. In all cases, local emergency response agencies will

maintain their accountabilities to their jurisdiction which likely require them to employ local resources to provide public security, emergencymedical services, and public health services. If public resources are not required to be involved in the emergencyresponse, TC Energy and the public agency may mutually agree that use of the public agency's equipment would improve the response; if this occurs, the public agency may willfully support TC Energy's response, but shall never be dictated to do so by TC Energy. If TC Energy requests use of publicly owned, TC Energy expects toreimburse associatedcosts basedon established rates for use of the equipment used.

Publicly owned resources shall not be requested or expected to support long-term operations; if long term support is required, these resources shall be procured through contract resources.

5.3. Response Assistance Agreements

Response assistance agreementsare documented understandings between TC Energy and counter parties regarding emergencyassistance. They typically document an intention to provide services, equipment or personnel, on a one-way or reciprocal basis. The scope and standard of their performance obligations canrange from assisting ona 'best-effort' basis, to providing more guaranteed assistance.

In Canada and the US, response assistance agreements are generally not required for emergency services (i.e. Fire, Police and Ambulance) that are tax funded and provided by states, provinces, municipalities, as a core public service. In Mexico, collaboration agreements with theseagencies may be required.

5.3.1. Agreement Types

TC Energy uses five categories of response assistance agreements, and tworelatedelements.

1. **MOU (Memorandumof Understanding)** = A written understanding, often taking the form of a letter between managers, outlining assistance expectations. (e.g. Tecumseh Gas Storage).
2. **MutualAid Agreement** = A writtenagreement outlining the type, terms and conditions of assistance that two or more parties will provide to each other. They may be local [e.g. Atlantic Power; HMAG]; regional/multi-jurisdictional [e.g. SPOG; NRCAER]; or company/country-wide [i.e. CEPAMEAA].
3. **Automatic Aid Agreement** = A formal service agreement specifying how one party will respond on behalf of the other (e.g. WCSS; Suncor-Fort Hills Emergency Response Agreement).
4. **Collaboration Agreement** = Once the Mexico State Civil Protection agency approves TC Energy's response plan and evaluation of a field exercise, they issue an agreement to collaborate with TC Energy during an emergency.
5. **Cooperative Agreement** = A collection of companies agree to maintain and provide response equipment and/or personnel to co-op members in good standing [i.e. participation in annual training/exercises and payment of fees.] This may function like a mutual or automatic aid agreement. (e.g. Western Canadian Spill Services – WCSS).

Related Elements:

- **Response Contract** = these are not a response assistance agreement, but rather a commercial service agreement managed by supply chain. They document a contract to provide an emergency support service (e.g. NRC – National Response Corporation; QM Environmental/Quantum Murray LP). Refer to Section 5.2.1 of this manual for more detail.
- **Informal Understandings:** An understanding between parties that may be either verbal or a documented but unsigned understanding. Some take on the appearance of a mutual aid association, even with documented expectations, but exist without a signed agreement between the parties (e.g. Empress MAP; CPOC; CMAG; CMAC).
    - Sometimes akin to a 'handshake deal', these are not an enforceable response assistance agreement. Without formal stand-alone agreement-based documentation any provision of assistance under these types of arrangements should be communicated or clarified (if existing) and managed as an extension of TC Energy's 'good neighbor' philosophy to potentially aid within the greater community of pipeline operators. Notice of informal understandings in support of response assistance should be provided to management but are not TC preferred and if appropriate, should be further developed in a designated timeframe into a written agreement of one of the agreement types stated above.
    - Advantages to formal documented agreements over informal understandings include:
        - Confidence in TC Energy's standing and ongoing response capacity
        - Increased financial and legal certainty and protection for both the providing and the requesting party
        - Continuity and certainty of assistance and obligations (the mutual understanding remains intact if personnel of either party change)
        - Personnel safety (agreements generally specify safety/competency/leadership criteria)
        - Formal record of a third-party resource for emergency response purposes

Written Agreements

Response assistance agreements are intended for TC Energy to give or receive response assistance (or both) in the form of personnel, materials or equipment that are not readily available in the local area to one or both parties.

The primary value of a written agreement is a shared and clear understanding of any legally enforceable rights among the parties in their roles. The main substantive and administrative outcomes are generally:

- the limitation of liability (general indemnification, except for gross negligence and/or willful misconduct)
- cost recovery/reimbursement for all reasonable, documented assistance costs (e.g. personnel wages; equipment usage)
- clauses related to insurance requirements and limitations.
- clear term (duration), amendment and termination rights

Existing Response Assistance Agreements

For Assistance Agreementsapplicable to only one Region, Facility or Business Unit, the EPC shall store all writtenagreements in FileNet; make them accessible and known to their EOC; review annually and provide the FileNet number to corporate emergencymanagement. For Assistance Agreements applicable to the entire Company or several Business Units, the Emergency Management Team will store agreements in FileNet; make them accessible; and review them annually. All of TC Energy's major writtenagreements are linked to the Emergency Management Website.

Canadian Energy Pipeline Association (CEPA) Mutual Emergency Assistance Agreement

TransCanada PipeLines Limited (o/a TC Energy) is a member of CEPA. All CEPA members participate in a Mutual Emergency Assistance Agreement (MEAA), that allows them to request assistance from one another in the event of any oil or gas emergencyin Canada. For additional information see the TC Energy Emergency Management 'Response Assistance Agreements' webpage where the CEPA Mutual Assistance Agreement is referenced.

Response AssistanceAgreement Template

TC Energy has a template/example agreement that may be used as a dialogue starting point: NGTL Mutual Aid Agreement (004140408). To assist with any assessment of need, appropriate document type selectionand legal customization, lines of business contemplating an agreement should contact Emergency Management Program staffand appropriate TC Energy legal service providers.

5.3.2 Requesting and Receiving Assistance

Request for Response Assistance – Existing Agreement

TC Energy personnel engaged in emergencyresponse may identify the need to request assistance and activate an existing documented agreement. 'Personnel' normally includes management of the affected line of business, a Company First Responder, Incident Commander, IMT/IMAT member, or manager/member of an EOC.

- The activation process documented in any agreement shall be reviewedand followed. Agreement may specify both who may make a request and the specific process.
- Where no process/position is specified, a request under an existing agreement shall be authorized by the Incident Commander, or an EOC Manager in conjunction with the company first responder until an Incident Commander is in place. Line management may be consulted.
  - The making or acceptance of a request maybe delegated.
  - Requests shall be documented with date, time, names/titles/contactinformation of persons involved.

Receipt of Request for Response – Existing Agreement

As noted, consistent with its 'good neighbor' philosophy, TC Energy may provide emergency assistance to parties within its community of pipeline operators absent an existing formal agreement where feasible, prudent and safe to do so. Even more prompt and reasonable consideration should be given to the provision of assistance where anexisting agreement contemplates it.

- Where a formal signedagreement exists, the request shall be considered and acted upon in alignment with the terms of that agreement and any discretion detailed within it.
- Where no prior agreement or an informal understanding is in place, TC Energy's 'good neighbor' philosophy shall be considered, and the request referred to the Regionor Facility Director or designate. Involvement of the appropriate IST Leader and their IST for approval and legal guidance may be deemed to be either required or appropriate in this context.

Request/Receive Response Assistance - No Agreement

Where TC Energy wishes to offer or request assistance to/from another company, organization or local government, the request shall be authorized by the Vice President of the operating business, and that VP shall further inform a company officer.

A protracted TC Energy response that utilizes the resources of another party maywarrant the development of a new and summary writtenagreement with that partyas the response continues to unfold. A relevant existing TC agreementor template may be modified for the purpose, albeit only with legal guidance. Any agreement developed during a repose shall follow the legal and business unit recommended sign-off process.

5.3.3. New Response Assistance Agreements

Entering into an Agreement

The nature of an emergencyresponse relationship influences the type of agreement it will be possible to enact. The need for a response assistance agreement is dictated by such factors as operating risk to public/high consequence areas (HCA's); personnel presence in/travel time to remote operating areas; need for specialized equipment or expertise; and local expectations/commitments. The needmay be identified by an EPC/EPT, leadership, and industry partners. TC Energy may request response assistance from local industry, contractors, local governments, or individuals with necessary skills, equipment or desired response times.

It is strongly advisable toinvolve both corporate Emergency Management Team and TC Energy Legal team members for response assistance agreements at the start (assessment phase) of the process.

Preparing an Agreement

After determining the need for an agreement and the most appropriate form, the identifying party shall consult with the EPC, EPT, affected area/facilitymanager and director. The EPC, designated EPT or area manager shall work with the counter-party to:

- identify the goal and desired key attributes of the agreement;
- gather accurate and appropriate supporting documentation (maps, phone lists, company legal & management contacts);
- facilitate appropriate reviews, approvals, execution, dissemination, filing and regional/facility staff awareness.

Either party may choose to create a draft and circulate to the counter-party. Alternatively, a TC Energy template or prior agreement may be used as a draft/model. The corporate Emergency Management team SME and corporate Legal support department EPC will assist in determining agreement choice, scope and signing parties; as well as drafting and circulating content for counter-party review and signature.

Draft agreements are to be finalized and signed by the business unit according to any business unit specific signing authority policy and any applicable corporate signing authority policy or process.

Notwithstanding any extension of its 'good neighbor' philosophy to emergency response assistance, TC Energy shall not agree to provide any voluntary emergency assistance which would require expertise or knowledge which its employees or representatives do not hold; is outside TC Energy's realm of competency; or places TC Energy's employees or property at undue risk of injury, damage or loss.

Agreement Contents

Mutual and Automatic aid agreements contain both standard and optional elements. Letters and MOU's shall reflect the scope of response and may incorporate other elements desired by/suitable to both parties, with consideration given to the tolerable level of documented sophistication. The following table illustrates a general range of content typically incorporated in an agreement.

Standard Content	Optional Content
• List of parties to the agreement • Term and scope of agreement • Definitions and general expectations • Services and/or Resources offered/expected – with conditions • Activation process • Indemnification (liability limitation) • Cost recovery and billing • Dispute resolution • Termination and amendment provisions • Legal and judicial jurisdiction • Maps • Signatures	• Safety and response competence provisions • Control of resources when activated • Appendix 1: Emergency contacts and process • Appendix 2: Resource/Equipment listings • Appendix 3: Membership expectations; Training & Exercise Requirements • Appendix 4: Map of MAA area • Appendix 4: Annual appendices maintenance process

Annual Agreement Reviews

The EPC is responsible to conduct an annual review of their agreements. The review of multi-party national agreements (e.g. CEPA MEAA) is on the timing prerogative of that collective group. The TC Energy representative on these associations may review and initiate change requests in the manner specified in the agreement.

5.4. Emergency Procurement

In an emergency, TC Energy shall make all efforts to use Supply Chain approved resources; however, in emergencies, if contractedresources are not available, TC Energy maymake other arrangements to use otherwise available resources to protect people and the environment. If resources not previously approved by Supply Chain must be used, Supply Chain shall be immediately notified and shall work cooperatively with the IMT to expedite approval and payment of required resources.

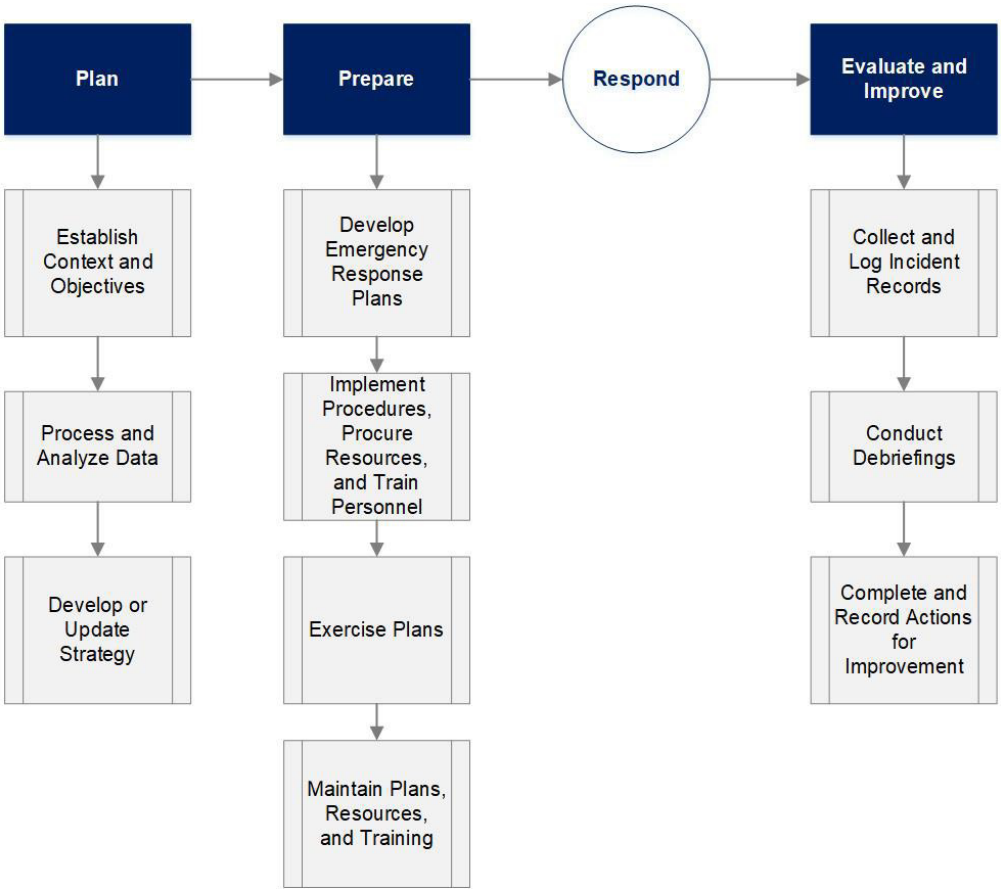
6. Emergency Preparedness

Effective emergencyresponse is directly related to effective preparedness. During an emergency, the activation process, lines of communications, management of resources, and response strategies shall alreadybe defined and known.

Emergency preparedness is the foundation that supports efficient and effective execution of response activities. This section documents the emergency preparedness requirements that apply to the entire Company.

6.1. ProgramImplementation and Overview

The flowchart on the next page illustrates the emergency preparedness process. This process is completed by the Emergency Preparedness Team (EPT) for each Facility, Region, or Support Department; the applicable Emergency Preparedness Coordinator (EPC) shall ensure emergency preparedness is achieved for facilities within their purview in accordance with the Emergency Management Program Implementation RACI (1018754467).


Plan
Prepare
Respond
Evaluate and Improve
Establish Context and Objectives
Process and Analyze Data
Develop or Update Strategy
Develop Emergency Response Plans
Implement Procedures, Procure Resources, and Train Personnel
Exercise Plans
Maintain Plans, Resources, and Training
Collect and Log Incident Records
Conduct Debriefings
Complete and Record Actions for Improvement

6.1.1. Corporate Emergency Management Functions

The Emergency Management Program is organized at the Corporate level, within the TC Energy Technical Center, to provide consistent direction for efficient and effective Program implementation across the Company.

Emergency Management and Corporate Security Steering Committee

The Emergency Management and Corporate Security Steering Committee is accountable for the Program. The Steering Committee ensures adequate senior management governance and review takes place with respect to the planning, objective setting, execution, performance review, and continuous improvement of the Program. The Steering Committee is guided by the Emergency Management and Corporate Security Steering Committee Charter (008639746).

Corporate Manager of Emergency Management

The Corporate Manager of Emergency Management is responsible to leading members of the Emergency Management Team to maintain the Corporate Emergency Management Program, monitor Program Implementation across the Company, identify opportunities to improve the Program, and execute the directives approved by the Steering Committee.

Corporate Emergency Management Team

The Corporate Emergency Management Team is organized within Safety, Quality, and Compliance, then within the Health, Safety, and Emergency Management Department. The Corporate Emergency Management Team provides a support service for all Support Departments and Field Operations teams who are required to implement the Emergency Management Program within their purview. The centralized Corporate Emergency Management Team allows the Company to apply an efficient and effective Emergency Management Program consistently across all counties and lines of business.

Community of Practice

The Emergency Management 'Community of Practice' (COP) is a virtual and/or physical meeting venue based on the following objectives:

1. Ensure unified adherence to the TOMS-mandated EM Program.
2. Collaborate and share best/recommended/required practices, tools, techniques and lessons to ensure consistent EM field methodology and successful application.
3. Elevate continuous improvement opportunities for program-level incorporation.

The underlying goal of the community is to promote – and if necessary, to assure - a mutual and shared understanding of the Corporate Emergency Management Program and its requirements to ensure consistent interpretation and successful application of the program by each involved practitioner.

Participation in the community is a requirement for all TC Energy Business Units, with mandatory meeting attendance by the:

- Corporate Manager of Emergency Management
- Emergency Management and Corporate Security Steering Committee Vice President Sponsor

- EPC & SPOC Coordinator
- All Field EPCs *(where unable to attend a proxy must be arranged – e.g. an EPT member)*

At the discretion of the Corporate Emergency Management Manager, invitees/optional attendees may include SPOCs, corporate EPCs, guest speakers andguest attendees.

Meetings will be chaired by the Corporate Emergency Management Team representatives, on a frequency of ten or more times per year - with a minimum of one face-to-face gathering. Meeting cancellation is by joint agreement of the Emergency Management Manager and Vice President Sponsor.

The Corporate Emergency Management Team will collect data from all Field EPCs and produce a quarterly 'Field EPC Governance Report' that will be sharedwith the Emergency Management and Corporate Security Steering Committee.

EPC & Single Point of Contact (SPOC) Coordinator

The SPOC coordinator is a member of the Corporate Emergency Management Team whose primary roles is to ascertain and promote consistent interpretationand application of the Emergency Management Program by and between SPOCs and among corporate and field EPCs.

Single Point of Contact (SPOC)

Single Points of Contact (SPOCs) are members of the Corporate Emergency Management Team whose job is to liaise and build working relationships with their respective EPCs - providing support, guidance, and tools for consistent, efficient, and effective Program implementation, while soliciting feedback for Programimprovements.

6.1.2. Field EPCs and EPTs

TC Energy's Corporate Emergency Management Team relies heavily on representatives from operational regions and facilities to implement the Emergency Management Program. Each Pipeline Operations
Region and the Power & Storage Business Unit are required to select one person as the Emergency Preparedness Coordinator (EPC) to have overall responsibility for their region/facility's preparedness and implementation of the Emergency Management Program.

The requirements of the Emergency Management Program are essential for ensuring regulatory compliance and effective emergency preparedness. However, the work required canbe time consuming and require diverse input. For this reason, each EPC shall build a team of representatives from their Region or Facility to assist in managing the requirements. This team may be made up of managers or specialists andincludes field staff from varied locations and/or backgrounds (e.g. instrumentation or mechanical techs; different areas; REOC Manager). This group is collectively identified as the Emergency Preparedness Team (EPT).

6.1.3. Support Department EPCs

Some TC Energy Support Departments are also accountable for ensuring proper emergency preparedness and implementation of the Emergency Management Program within their purview. The Emergency Management website includes a list of Emergency Preparedness Coordinators for each country of Operations; where a Support Department is listed on the website, it shall be assumedthe Support Department is accountable for actions described in this portion of this Manual.

Support Departments shall select an Emergency Preparedness Coordinator (EPC) to accept overall accountability for Emergency Management Program implementation, and the EPC shall build a team (EPT) within their Department toexecute required preparedness activities.

6.1.4. CEOC Managers

CEOC Managers are responsible to ensure their respective facilities are preparedfor activation in response to an emergency.

The table below defines the responsibilities of the CEOC Managers regarding ensuring emergency preparedness at both the CEOC and the Houston EOC.

CEOC Manager
CEOC Managers assume responsibility for effective EOC management. • Ensure all CEOC participants (on-call staff) are fully qualified to participate in emergency response events and exercises (validation sheet sign-off). • Complete Emergency Management required training courses. • Initiate the weekly test notification for Corporate Support Departments via the automated notification system. • Follow-up with Support Departments who have not responded to the weekly test notification.

6.1.5. Emergency Preparedness During Major Projects

Through the process of acquiring or building an asset new to the Company, TC Energy realizes the opportunity to identify and address project specific hazards and risks, legal requirements, and stakeholder and rightsholders needs. The information collected and the key deliverables developed shape the Emergency Management Program once the new asset, or Project, becomes operational.

TC Energy recognizes twotypes of Projects:

- Greenfield, an asset that will be operatedindependently from any other operational asset.
- Brownfield, an asset that is an addition to anexisting operational asset.

The type of Project (greenfield vs. brownfield) has a significant impact on the structure of the operational response model. Greenfield projects require new resources, new facilities, and new outreach strategies. Brownfield projects may use existing resources, facilities and equipment, and build off existing relationships with external stakeholder and rightsholders groups.

Early involvement of TC Energy's Emergency Management Team with the broader Project team is critical during the proposal phase of the project to ensuring thorough understanding and interpretationof the applicable legal requirements. The Emergency Management specialist(s) supporting the Project have the expertise to determine the applicable legal requirements, impacts to the broader Emergency Management Program and the deliverables required.

The table below summarizes the common deliverables (basedon applicability) that must be considered during each project phase.

Project Phase	Common Deliverables

Proposal	• Determination of required:
	  ○ Emergency response plans, to include Tier 2 Emergency Response Plans, Tier 3 Emergency Response Plans, fire incident pre-plans, geographic response plans, control points, and work aids.
	  ○ Emergency response equipment and facilities (i.e. EOCs, ICC)
	• Determination of the response organization.
	• Design review to influence safe access and egress routes, fireprotection system design and compliance and equipment storage locations.
	• Introductory meetings with the stakehol ders and rightsholders, including the authority having jurisdiction.

Definition	• Consultation with external stakeholder and rightsholders, including the authority having jurisdiction. • Response to information requests. • Development of emergency response plans • Procurement of emergency response equipment procurement and facilities. • Definition of training requirements.
Implementation	• Publish and exercise emergency response plans. • Mobilize emergency response equipment to assigned location(s). • Set-up emergency • facilities. • Train response personnel.

The Emergency Management Integration Activities during Major Projects flowchart outlines the responsibilities of the Emergency Management specialist during each phase of the Project. For more detail, refer to TC Energy's Project Delivery Standard (PDS).

Preparedness activities should be evaluatedthrough a tabletop exercise prior to the Project going into service. This allows operational staff an opportunity to validate response protocol, test and familiarize themselves with any new response equipment and collaborate with internal and external stakeholders and rightsholders.

6.2. Emergency Planning

Emergencyresponse plans shall be in place toprotect the health, safety and welfare of people, and to limit damage to property, company operations and the environment. Emergencyresponse plans shall recognize the needs of TC Energy, its employees, the community-at-large, and any regulatory and legislative requirements in efforts to prepare for all hazards and all magnitudes of emergencies.

6.2.1. Regulatory Requirements and Standards

At minimum, emergency response plans shall meet all applicable Federal, State/Provincial, and Local regulations relatedto emergencyresponse. Ifthe specific details of the regulation are not met through the emergency response plan, the plan will point to documentation of where the regulation is met.

Due to TC Energy's broad scope of operations, and because the Company operates in three countries, and several states and provinces, this Manual does not list all requirements. Instead, Field EPTs in consolation with their local Regulatory Compliance Specialists and the Emergency Management Team, are responsible for being aware of and meeting regulations which apply within their jurisdiction. For reference, some emergency response planning regulations are listed below, but this list is not comprehensive.

Authority	Regulatory Reference
Canadian Energy Regulator	National Energy Board Onshore Pipeline Regulations SOR/99-294 (32) http://laws-lois.justice.gc.ca/eng/regulations/SOR-99-294/
Canada – Environment Canada	Environmental Emergency Regulations http://laws-lois.justice.gc.ca/PDF/SOR-2003-307.pdf
United States DOT/PHMSA	https://www.ecfr.gov/ Title 49 CFR 192 Subpart L (Gas Pipelines) Title 49 CFR 194 (Onshore Oil Pipelines) Title 49 CFR 195 (Onshore Oil Pipelines)
United States Coast Guard	https://www.ecfr.gov/ Title 33 CFR Part 154 Subparts A, B, C, D and F
United States Environmental Protection Agency	https://www.ecfr.gov/ Title 40 CFR Part 112 Subparts A, B and D
United States Occupational Safety & Hazard Administration	https://www.ecfr.gov/ Title 29 CFR Part 1910, Subpart H
United States Federal Energy Regulatory Commission	http://www.ferc.gov/industries/hydropower/safety/guidelines/eng-guide/chap6.asp
Alberta Energy Regulator (AER)	https://aer.ca/regulating-development/rules-and-directives/directives/directive-071

6.2.2. Corporate Requirements and Standards

Emergency response plans are developed to:

- Meet regulatory requirements, ensuring compliance and ability to legally operate
- Provide specific directions to ensure safety of people, reduce the potential for destruction of property, minimize the impact on the environment, and limit interruption of service
- Provide informational resources to facilitate effective and efficient response

All emergency response plans are required, at minimum, to meet regulatory requirements. In addition, TC Energy expects internal stakeholders to assess their unique risks and lessons-learned from past exercises and emergencies to build more robust emergency response plans than are required by law.

6.2.3. Types of Plans/Documents

TC Energy recognizes three tiers of emergency response documents. These three tiers serve specific and unique purposes; collectively, these documents shall meet all regulatory requirements.

Tier 1 Plan

TC Energy's Tier 1 Plan is this Emergency Management Corporate Program Manual (this document). There shall be only one Tier 1 Plan in the Company, as it shall always be an over-arching program manual. The Manual shall describe TC Energy's Emergency Management Program to provide context to the EM Standard and EM Procedure which apply to all lines of business within TC Energy.

This Manual rarely contains specific tactics, resource inventories, or procedures for use during response; moreover, the Manual shall serve to guide Facilities, Regions, and Support Departments in developing and executing emergency preparedness activities within their area of responsibility.

This Manual is maintained by the Emergency Management Team.

Tier 2 Plans

TC Energy may have several Tier 2 Emergency Response Plans. These Tier 2 Plans provide specific informational resources (contact information, procedures, maps, etc.) which apply to an Business Units or country of Operations. Tier 2 Plans are expected to be submitted (or otherwise available) to regulators and shall be reviewed by pertinent internal stakeholders.

All TC Energy Tier 2 Emergency Response Plans shall follow the same general outline to provide consistent training and use across TC Energy's many lines of business and Support Departments. The general outline and specific contents of each section are prescribed in the Tier 2 Emergency Response Plan Development and Maintenance Procedure (013673254).

Tier 2 Emergency Response Plans are maintained through collaboration between the Operations Region and the Emergency Management Team.

Tier 3 Documents

Emergencyresponse reference documents shall be createdfor all Major People facilities and all operational assets. Even where a Tier 2 Plan exists, a Tier 3 Document is developed to focus on a narrower geographic area within a larger pipeline system. These Tier 3 documents can be developed using the Tier 3 Emergency Response Reference Template (004130370).

Tier 3 documents are maintainedwholly by the Business Unit in accordance with the Tier 3 Emergency Response Reference Task Package . The Emergency Management Team provides guidance and is available for consultation during the maintenance of these documents; and, the Emergency Management Team is accountable to verify that all emergencyresponse plans are updated annually.

The Emergency Response Reference template is the most common structure of Tier 3 Documents. However, the table below describes additional types of reference documents which may be classified as a Tier 3 Document.

Types of Tier 3 Documents	
Type of Reference Document	***Description***
Facility Response Plans (FRPs) for Oil Storage Facilities within a larger system already covered by a different Tier 2 Plan.	Facility Response Plans are created forOil Storage Facilities (Breakout Tank Terminals) which include only tanks used to (a) relieve surges in a hazardous liquid pipeline system or (b) receive and store hazardous liquid transported by a pipeline for reinjection and continued transportation by pipeline. In this case, an over-arching Tier 2 EmergencyResponse Plan shall be maintained for the entire pipeline system; then, an additional location specific plan may be created to provide additional, location specific information. In this case, the over-arching Tier 2 Plan supersedes the Tier 3 Document. Note: If a FRP is the only Response Plan for a Facility, it shall be Considered a Tier 2 Plan; this is most common at Power Generation Facilities.

Geographic Response Plans (GRP)	A site specific strategy for the initial response of a spill of oil on water; this plan significantly reduces the decision making process during the initial response. The GRP shall provide responders with information of the site, the equipment needed to carry out an effective response, access details and other important information. A GRP contains a set of planned response strategies that are designed to give responders important information about particular sites so that damage to sensitive resources is minimized in the first few hours following a spill. These can be actions to control, contain, redirect, or collect the spilled material. The strategies are designed to be flexible, letting responders adjust actions to meet the needs of current conditions. Plan content, format, and guidelines for development are prescribed in the Geographic Response Plan (GRP) Development and Maintenance TOP.

Other Plans and Reference Documents

Operational Regions and Facilities may choose to develop and maintain additional emergency planning or reference documents to bolster preparedness within their area of responsibility. The table below describes some of the materials which Regions and Facilities have chosen to use; however, none of these documents are required by the Emergency Management Program.

Type of Document	Description
Quick Reference Guides (QRGs)	A reference card or reference sheet is a concise bundling of condensed notes about a specific topic, such as math formulas to calculate area/volume, lists of key contacts and telephone numbers, or lists of acronyms and abbreviations.
Field Operations Guides (FOGs)	A pocket-sized manual of instruction for application of the Incident Command System (ICS).
Visor Cards	A double-sided, laminated card which easily fits in the visor of a vehicle. These cards may include lists of key contacts and telephone numbers and abbreviated first responder checklists. Visor cards are field initiatives not controlled by corporate EM.

6.2.4. Locations and Access to Plans

Emergency response plans shall be maintained and stored in accordance with this Manual to ensure users within the affected Region or Facility and all Support Departments can readily access appropriate plans in an emergency. The current and official version of all emergency response plans shall be hosted in FileNet with more specific storage as follows:

- Tier 1 Plan (Emergency Management Corporate Program Manual) retains FileNet Item ID 003671823 and can be accessed through the Controlled Documents Library or the Emergency Management Website within the Emergency Preparedness section. This document is maintained as a Business Practice Document, and therefore editable versions can only be retrieved through consultation with TC Energy's Documents and Records Management Team.

- Tier 2 Plans can be accessedthrough the Emergency Management Website within the EmergencyPreparedness section.
- Tier 3 Documents are housed in the Emergency Managementclass of Open Text in accordance with the Tier 3 Emergency Response Reference Task Package (1017375940).

If the current and official version of an emergencyresponse plan is in PDF format, the editable version (Microsoft Word or other word processor) shall also be updated and hosted in the same location.

In addition to internal hosting of Emergency Response Plans, TC Energy has posted redacted versions Emergency Response Plans and Procedures Manuals for CER Regulated assets onthe externally accessible website, tcenergy.com. Public viewing of these documents encourages the Emergency Management Program to continuously improve and collaborate with stakeholders and rightsholders and demonstrates the commitment to transparency within the Emergency Management Program.

6.2.5. ReviewCycles and Process

All TC Energyemergencyresponse plans shall be reviewedat least annually. The review and update process for all controlled documents shall follow Document Management procedures where applicable, as described below:

- Tier 1 Plan (Emergency Management Corporate Program Manual) is a Business Practice Document. As such, updates to the document led by the Emergency Management Team.
- Tier 2 Plans are maintained through a collaborative effort betweenthe Emergency Management Team and the Business Unit; through this collaboration, thorough reviews and updates must be completed.
- Tier 3 Documents shall be updated annually. Regional or Facility Operations personnel are responsible for updating these plans and uploading them to FileNet ensuring cross-company availability. The Emergency Management Team is accountable for monitoring adherence to the annual update requirements and will work in consultation with the Regionor Facility to ensure updates are completed.

Note: All emergency procedures applicable to USGas Operations must be reviewed and updated at intervals not exceeding 15 months, but at least once each calendar year.

6.2.6. Emergency Service Consultation during EmergencyResponsePlan Development

Soliciting feedback from stakeholders and rightsholders is critical in developing comprehensive and accurate emergency response plans. Emergency response plan development includes consultation with public emergencyservices. Depending on the footprint of the asset, the potential impact, and the interest of public emergencyservices, the degree of consultation and involvement may vary. The list below provides recommendations on methods through which public emergency services may be engagedin emergencyresponse plan development:

- Personal Telephone Calls and/or Email Communication
- Town-hall Planning Sessions
- In-Person Presentations
- Mail Outs
- Participation in Emergency Exercises

Several teams within TC Energyincluding Emergency Management, Field Operations, Public Awareness, and the Community Relations Liaisons are engagedin consulting with Emergency Services. In fact, Emergency Services (including city, county, state/provincial and federal agencies that could reasonably be expected to respond to an incident involving TC Energy 's facilities) are identified as a key stakeholder group with the Public Awareness Program. As such, Public Awareness is responsible to coordinate prepare messaging for Emergency Service groups and deliver these messages as required by regulation or best-practices. Community Relations Liaisons, with the support of Field Operations, arrange in-person presentations withemergencyservice groups. In addition to these efforts, Field Operations validates

Emergency Service contact information in emergency response plans and engages appropriate Emergency Service groups in exercises.

6.2.7. Public Access to EmergencyResponse Plans

TC Energy endeavors to be transparent in all emergency preparedness efforts. However, some of the information in emergency response plans may be business-sensitive, security-sensitive, or governed by privacy legislation and therefore consideredconfidential. The following information is redacted from all emergencyresponse plans before they are made available to the general public:

- proprietaryinformation
- security-sensitive information, including information described in section 1520.5(a) of title 49, US Code of Federal Regulations
- specific response resources and tactical resource deployment plans
- the specific amount and location of worst-case discharges (as defined in part 194 of US title 49, Code of Federal Regulations), including the process by which an owner or operator determines the worst-case discharge

However, if regulation requires the information to be shared, the external party has response accountabilities in the plan, or if an external agency is identified as a Plan Holder within the document itself, the complete plan, free of redaction, shall be provided to the impacted party.

6.3. Emergency Training and Exercises

After emergencyresponse plans are created, they shall be communicated to users and testedfor effectiveness. Tothis end, TC Energy employees, contractors, andimpacted public entities shall be invited to participate in regular, standardized training toensure their awareness ofemergency response plans. Additionally, emergencyresponse plans shall be testedthrough exercises to identify opportunities for improvement, revision or enhancement of the plan. This section describes in greater detail the training and exercise requirements of the Emergency Management Program.

6.3.1. Training

Emergency Management System training provides participants with a clear chain of command; efficient, accurate communications; strategic thinking and informed decision making in preparation for an emergency.

The Emergency Management Team is responsible to train the:

- EPCs to understand their roles and obligations within the Emergency Management Program
- Incident Management Assistance Team (IMAT) to ensure the roster is maintained with accurate deployment readiness statuses
- CEOC Managers to understand the responsibilities of their role.

The Region, Facility, or Support Department EPC and EPT are responsible to:

- Ensure Region, Facility, and Support Department staff meet their regulatoryobligations for new hire and recurrent emergency response related training
- Ensure their REOC Team is properly staffedand trained
- Ensure resources are dedicatedto staffing and training IMTs
- Provide awareness informationto their local emergencyservice agencies

Training will vary slightly between Regions, Facilities, and Support Departments depending on the entity type(s). The core training program consists of a variety of courses which are managedin the company current learning management system of record. And, while the course content may vary, all Emergency Management courses must follow established course standards.

The Emergency Management Training Matrix, found on the Emergency Management website, summarizes details of the most commonly required courses; in some cases, where the scope of participation is narrow, courses are not listed, but all courses are still documented in the current learning management system of record.

The Emergency Management Training Task Force meets on a regular basis to review training requirements and training related concerns. The taskforce duties may include:

- Reviewing requests for training sections
- Reviewing requests to approve new training vendors
- Developing and maintaining training standards
- Ongoing improvement of the training program and its entities

Regulations

Portions of TC Energy is subject to, and abides by, the Occupational Safety and Health Administration (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER) Standard, 29 CFR 1910.120. This standard shall be applied to all personnel who may be directly engagedin response operations for releases of, or substantial threats of releases of, hazardous substances. TC Energy's Emergency Management Team shall work collaboratively with Regional Operations and Facilities to determine which personnel shall take the required level of HAZWOPER Training.

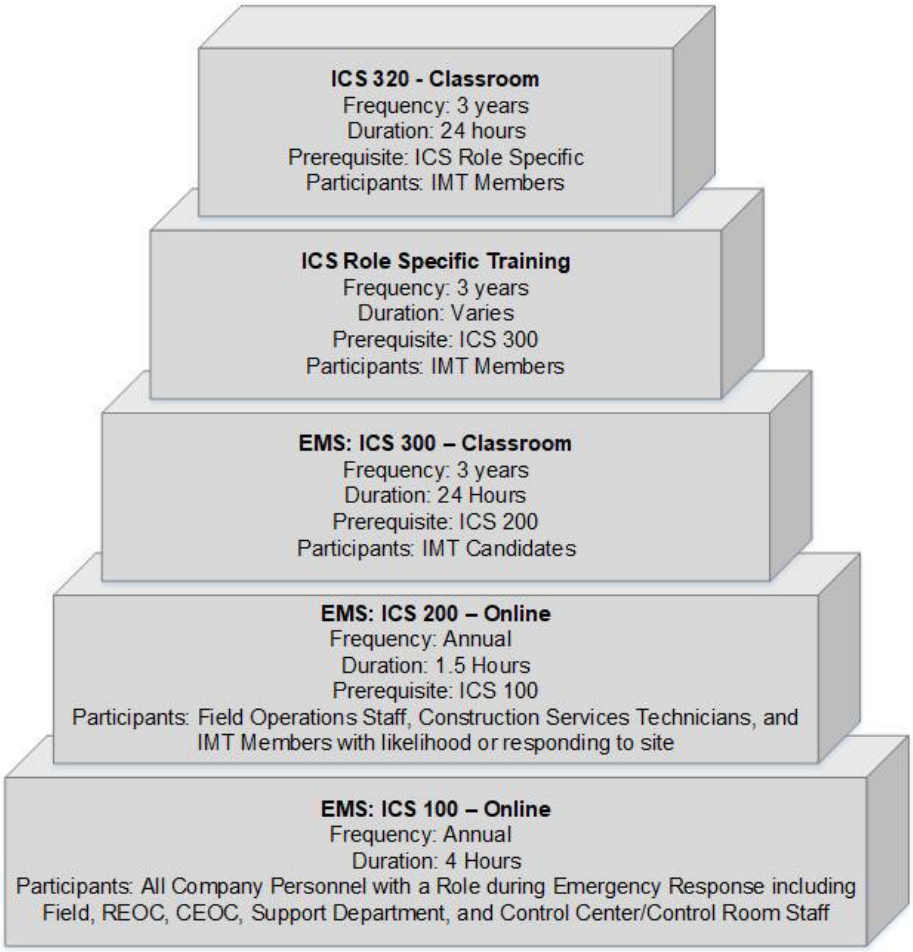
Responder Classification	Required Training Hours	Refresher
29CFR 1910.120(q) Emergency Response		
First Responder - AwarenessLevel	2-4 hrs demonstration of competency	2-4 hrs
First Responder - Operations Level	8 hrs	8 hrs
Hazardous Materi als Technician	24 hrs plus competency	8 hrs
Hazardous Material s Specialist	24 hrs plus competency in specialized areas 24	8 hrs
Incident Commander	hrs plus competency	8 hrs
29CFR 1910.120(e) Clean Up Sites		
General Site Workers	40 hrs / 3 days on the job training 24	8 hrs
Occasional Workers (Limited Tasks) General	hrs / 1 day on the job training 24	8 hrs
Site Workers (Low Hazard)	hrs / 1 day on the job training	8 hrs
Supervisors	8 hrs supervisor training	8 hrs
* Previous work experience and/or training certified as equivalent by employer.		

Instructor Qualifications

As no formalized method of certifying training instructors has been provided by Occupational Safetyand Health Administration, the Company ensures the competency of its instructors and training organizations by selecting trainers and/or organizations with professional reputations and extensive hands-on and classroom experience in their subject matter. Company personnel with responsibility to coordinate the training program also conduct periodic informal audits of training courses to ensure their suitability for the Program.

Incident Command System Training

Several Incident Command System (ICS) Courses are listed within the Emergency Management Training Matrix; these courses are required of personnel who have a role in emergency response. However, depending on their role and the magnitude of incidents to which they may respond, different levels of training are required. The diagram below provides more information on the levels of ICScourses. For more details on training requirement please refer to the Emergency Management Training Matrix Referenced above for the most current listing.



Documentation and RecordKeeping

Emergencyresponse training records are maintained electronically in LMS. Training records for response personnel shall be maintained for as long as personnel have duties pertaining to any emergencyresponse plan. It is recommended that all students retaincopies of their own training certificates toconfirm LMS Records.

6.3.2. Exercises

The goal of conducting emergency response exercises is to ensure the procedures, response plans and information contained in this Manual are valid, current and comprehensive. Exercises are designed to achieve the greatest value for the time and resources expended through detailed evaluation and subsequent improvement of processes, procedures and information.

Emergency response plans are required to be evaluated through routine exercises to test the accuracy, effectiveness, and identify opportunities for improvement. An exercise is a simulation of an emergency whichenables employees to learn by practicing their emergencyresponse roles and skills and provides the opportunity to identify areas of improvement and training opportunities.

Exercise Types and Requirements

The TC Energy Emergency Management programidentifies twoprimaryexercise types:

- Discussion Based exercise types are used to familiarize participants with current plans, policies, agreements, and procedures, or may be used to develop new plans, policies, agreements, and procedures. Discussion based exercises typically use an informal meeting format to review response activities using an emergency scenario.
- Operations Basedexercise types are used to validate plans, policies, procedures, and agreements; clarify roles and responsibilities; and identify resource gaps. Operations-based exercises include a real-time response such as initiating communications, opening an emergency operations center, or mobilizing personnel and resources.

TC Energy recognizes and conducts several kinds of exercises on a routine or annual basis. Not all the exercises listed are required but may be helpful in the emergency response planning and evaluation process. The kind of exercise chosen depends on the purpose, availability of resources, and limitations of conducting exercises that apply to that specific location or facility. Wherever practical, external contractors and local emergencyservices that have a role in response to an actual emergencyshould be invited to participate in exercises. Specific and more stringent requirements mayalso be added to the Business Unit, asset or project specific emergency response plan.

	Kind of Exercise	Definition	Requirements
Discussion Based	**Workshop**	A discussion-based exercise is often employed to develop policy, plans, or procedures.	As needed basis.
	Tabletop	A discussion-based exercise using a simulated emergency scenario intended to generate a dialogue of various issues to facilitate a conceptual understanding, identify strengths and areas for improvement, and/or achieve changes in perceptions about plans, policies, or procedures. A tabletop is typically hosted in an informal meeting environment where personnel review applicable emergency response plans and procedures that would be used in their response role.	Tabletop exercise participation is an annual requirement for all personnel identified with an emergency response role. • Operations Groups: An annual tabletop exercise will be conducted locally in each area of Operations. If the Business Unit is not operationally structured with regions and areas, one tabletop exercise will be conducted for each facility. • Corporate Support Departments: An annual tabletop exercise will be conducted for each support department to evaluate functional plans and support agreements. Note: Tabletop exercises may be conducted several times in a single year to ensure all personnel have an opportunity to participate.
	Third Party Contractor Assessment	Third Party Contractors Assessment Exercises evaluate contractor's availability for response in the initial 6, first 12, and extended hour time frames. Evaluation of response includes availability of both personnel and equipment responding to an emergency, as defined below: o Personnel include safety officers, supervisors, foremen, operators, and technicians. o Equipment includes boats, boom, vacuum trucks, pumps, skimmers, waste storage, heavy equipment and additional equipment as determined necessary. o Assess third party contractor's preparedness, availability, and capacity to respond to worst case discharge scenario.	*Liquids Only Requirement* Third Party Contractors Assessment Exercises are held in Canada and United States on an alternating annual basis.
Opera	**Drill**	An exercise employed to validate a single operation or function of an Emergency Response Plan or system such as Mass Notification system, Emergency Team Notifications, etc.	As needed basis.

	Qualified Individual (QI) Notification Exercise	An exercise to test and evaluate the ability to contact the Qualified Individual or designated alternate as identified in the emergency response plan.	*Liquids and Power Facility Only Requirement.* Annually for each facility or area within a region. One annual QI exercise shall be conducted during non-business hours.
Operations Based	**Equipment Deployment Exercise**	Demonstrate personnel's ability to organize and to deploy and operate spill response equipment identified in the Emergency Response Plan. May consist entirely of operator owned equipment, or a combination of OSRO/contactor and operator equipment. The Facility may take credit for actual equipment deployment to a spill, or for training sessions, if the activities are properly documented.	*Liquids Only Requirement.* The number of equipment deployment exercises conducted is such that equipment and personnel assigned to each Response Zone are exercised at least once a year. If the same personnel and equipment respond to multiple zones, they need only one exercise once per year. If different personnel and equipment respond to various Response Zones, each shall participate in an annual equipment deployment exercise.
	Field (Functional) Exercise	A field (functional) exercise is a single or multi-organi zation activity designed to evaluate capabilities and multiple functions using a simulated response scenario. A field exercise is designed to evaluate the management of emergency operations centers, command posts, response and support teams and to assess the ability to implement respective plans, processes, and procedures.	An annual field exercise is required for each region of a Business Unit. The **Regional Field Exercise** must include the activati on of an IMT and the REOC. In addition, one of the field exercises conducted for the Business Unit must be a **Corporate Field Exercise** and include the activation of an IMT, REOC, and the applicable CEOC. The region that hosts the Corporate Field Exercise meets its annual field exercise requirement. Wherever practical, external contractors and local first responder agencies (FD, LE, etc.,) that would normally be used during an actual response should be invited to participate in field exercises. If the field exercise is being planned for a newly acquired asset/entity, *then* invitation of external agencies is not required.

Liquids Operations Regulations

All TC Energy oil handling facilities, including oil pipelines, are subject to the National Preparedness for Response Exercise Program (PREP) Guidelines. The following table lists the PREP triennial exercise cycle for facilities. For additional details and information please refer to the National Preparedness Exercise Program Guidelines. Additional requirements may also be added to the liquids business unit or oil handling facility specific response plan as required.

Triennial Cycle		
Total Number	***Frequency***	***Exercise Type/Description***
12	Quarterly	Qualified Individual Notification Exercise
3	Annually	Equipment Deployment Exercise *(Facility-owned equipment)*
3	Annually	Response Team Tabletop Exercise
3	Annually	Equipment Deployment Exercise *(facilities with Oil Spill Removal Organization-owned equipment)*
3	3 per Triennial Cycle	Unannounced Exercise *(not a separate exercise)* Actual response can be considered as an unannounced exercise. Credit can also be given for unannounced equipment deployment and Response Team tabletop exercises.
NOTES: 1) All Emergency Response Plan components must be exercised at least once in the Cycle.		

Exercise Credit Criteria, Approval, and Documentation

Annual exercise credit, or credit-in-lieu, may be granted when an emergency that meets the following criteria occurs within the area of responsibility.

Exercise Credit Criteria

Note: Exercise credit cannot be granted for the annual tabletop requirement

Criteria

- Response tested key elements of the Emergency Response Plan, and activated the same level of response teams that would be required for the planned exercise (IMT, REOC, CEOC, IST)
- Credit was not provided for the same Region's planned exercise in the previous year.
- Response activity has been documented in accordance with this Manual and a debriefing has been completed.
- An action plan, to incorporate and disseminate lessons learned, has been executed.

Approvals

1. EPC and EPT:
    - Agree the response significantly enhanced preparedness and response knowledge/ability among a wide group of staff, equivalent to an exercise.
    - Request validation from their Emergency Management SPOC and Regional Director.
2. Emergency Management SPOC:
    - Verify the emergency event documentation is complete.
    - Conduct a quality review of the records. If records are validated, approve EPC to request credit.
3. EPC requests approval from:

- Emergency Management Program Manager
- Regional or Facility Director
- Business Unit Vice President (ERP Plan owner)

Documentation

- EPC is the point of contact for the exercise credit request and is responsible for ensuring all steps are documented and provided to the EmergencyManagement SPOC.
- Electronic approvals (e-mails) are permitted.
- Exercise credit documentation must be attached to the emergency EHSM Record and stored by both the Business Unit and the Emergency Management Program.

Exercise Design, Planning, and Facilitation Guidelines

Exercises are intended to be learning and coaching opportunities that enhance our capacityto respond while reinforcing correct behaviors, skills and past lessons learned. 'Surprise' or 'No-notice' exercises are not supported except where required by a regulator or otherwise approved by the Emergency Management Team (e.g., where the response team is at a very high-functioning and knowledgeable level). Drills that are targeted to reinforce repetitive skills (e.g., a muster stationdrill) are exemptedfrom this directive. Conducting a safe and successful exercise requires extensive planning before the exercise occurs. Example general exercise design, planning and facilitation guidelines are listed in the table below.

Exercise Design Process	
1: Plan the Exercise	Understand the goal for the exercise • Is there a specificproblem to fix? Define the problem. • Are there key lessonsfrom past exercise toexplore (challenges) or reinforce (successes)? What does exercise 'success' look like? Is it an improvement over the last exercise?
	List three to five specific objectives • The purpose is for all to look back at the end of the exercise and agree they were clearly met – or not
	Set the date and time • Check for conflicts and potential distractions (e.g. budgeting, planned outages, leaders' meetings) • Allow about 90 minutes for the scenario discussion, plus 30 for debrief and action items • Consider precedingthe exercise with a plan review, trainingsession, forms/FR kit refresher – allow time
	Invite participants. • Create calendar booking with at least two-weeks notice • Send an invite message with agenda and objectives • Target outliers for verbal follow-up • Enlist a key stakeholder to attend or encourage attendance

	Develop a scenario. • Develop an initial and an escalation scenario– a paragraph or two to paint a mental picture. Use a realistic and probable situation. • Develop a second escalation phase of that scenario, with added complexity. • Know your audience and tailor your exercise scenario and questions to be inclusive –promote dialogue.

	Develop discussion questions.
	• 3-5 questions per scenario (6-10 total) should be carefully worded:
	  ○ To frame, guide and promote discussion and action.
	  ○ To explore past successes and challenges learned.
	  ○ To introduce systemic weaknesses controversial areas, allowing the TTX facilitator to cautiously steer the dialogue.
	• Include individual or small-team activities, for example:
	  ○ Researching info in a plan; check on resource availability; find documentation needed for the response.
	  ○ Review response tools (first responder kits, IMT/EOC role kits; Profiles of Service.)
	  ○ Complete an Incident Briefing (Form 201).

	Prepare for delivery. • Is a room booked? Are required resources/tools (projector, charts, markers) available? • Prepare materials (sign-in sheet, pen/paper; handouts, debrief form, external agency feedback forms). • Send a reminder to participants with required pre-reading material • Confirm external participants. • Is there anyone to forewarn of the exercise? Ensure no one is surprised by someone thinking that the exercise was an actual incident.

2: Deliver the Exercise	Introduction.
	• Introduce the Exercise Design Team and Exercise Staff.
	• Ask exercise participants and observers to introduce themselves and state their emergency role.
	• Describe the context.
	  ○ Is there a reason for the exercise or the chosen scenario?
	  ○ Explain any unrealistic scenario parts.
	• Review the desired outcome (goal) and specific objectives.
	  ○ Are they achievable, in the allotted time?
	  ○ Does the group agree?
	• Set ground rules (i.e., disagreements go to a 'parking lot' for follow-up; the facilitator chooses when to move on; act as you would in a real event, but do not spend real money).

	Facilitate. • Ensure all participants are adequately engaged and challenged. • Pace the time to ensure key points are covered.

	• Use injects to challenge participants, drive action, and confirm understanding.
	Review. • Ensure key observations and action items are captured to discuss during the debriefing. • Review stated objectives to determine whether they were achieved.
3: Evaluate the Exercise	Affirm. • Confirm the objectives were achieved. • Summarize exercise staff key observations.
	Debrief. • Appoint a scribe to fill in the Debrief Template. • Explain the process and order by which feedback will be collected. • Lay ground rules (i.e., one person talks at a time; try to suggest solutions with any challenges). • Use internal and external participant feedback forms to capture overflow items.
	Assess. • Ask the group to identify what they think are the most significant participant observations • Document key action items (focus both on those with high group acceptance, as well as those that offer the most benefit but may be harder. Three to five total).
4: Applying Learnings	Analyze. • Which learnings were the most significant? Why? • What single learning, if well-applied, would offer the most benefit? • Identify something tangible from the activity that serves as 'proof' the Company is better because of the exercise. • What internal or external groups were not well-engaged? Why? Is it a comprehension, motivation, or training issue? Do they need one-on-one follow-up?
	Strategize. • Do the successes and challenges have common themes that allow for action item grouping? • What would be the best ways to ensure the successes are learned by all, and the challenges not repeated? • Develop specific, measurable key action items.
	Document. • Complete the debrief form, file in SAP EHSM and assign the key action items.
	Follow Through. • Incorporate, track, and close out the key actions and lessons learned.

Field Exercise Guidelines	Related Goals
All field exercises shall be communicated to staff. Staff will be provided with the approximate date of the exercise (i.e., the week of Sept 20 - 25th, there will be an emergency exercise).	Staff shall prepare for the exercise by reviewing the emergency procedures and updating site specific information. All EPT representatives shall ensure the review takes place in their Area/facility prior to the emergency exercise. The exercise location and details shall not be disclosed to reinforce the need for all staff to review and prepare themselves to participate in the exercise.
The Emergency Management Team, Public Affairs and Communications, Control Center (which will be impacted by the exercise), the appropriate Compliance Team, and a Community and Government Relations Representative shall be notified of planning activities associated with all field exercises.	The Emergency Management Team shall provide guidance and support in the development of all field exercises. The Region/Facility Community Relations Representative shall assist with the External Communications/Media and help them field inquiries associated with external field exercises to ensure a professional and consistent approach and message.
Local media is advised of external Field Exercises at the discretion of the Public Affairs and Communications Team. Local media may be contacted the day of the exercise by a Region/Facility Community Relations Representative and advised that TC Energy is conducting an emergency exercise which involves local emergency response agencies.	To avoid any expense/resource deployment by local media resulting in a negative response by the press concerning TC Energy. To re-enforce TC Energy's commitment to public safety and to maintain good working relationships with local emergency service agencies.
If possible, all scenarios for field exercise emergencies start as a result of a third-party event, such as a contractor striking the pipeline while digging in the ROW.	The purpose of the exercise is to test processes, procedures and informati on flow. The cause of the incident is not the primary focus; it is the means to enact emergency procedures.
Correspondence with emergency service agencies shall be completed by TC Energy and not through a third party.	TC Energy shall work with each service group separatel y to ensure consistency of information and have an equal opportunity to participate in our external field exercises.

Field Exercise Guidelines	Related Goals
Determine TC Energy's Objectives for External Field exercises before meeting with external agencies.	To maximize the value of the exercise for our employees, the influence of external agencies on the objectives is managed by ensuring the TC Energy Objectives drive exercise design. The scenario may change to accommodate external agency participation, but the objectives and path to achieve the objectives should remain unchanged.
Exercise debriefings with the Media or Community shall be held separately from debriefings with local emergency service agencies. Issues directly pertaining to the working relationships with TC Energy and the external agencies shall be discussed and resolved.	TC Energy shall share exercise findings with the specific agencies where issues have been found. TC Energy shall not share the findings of others with third parties.

Exercise Forms and Resources

All Field EPC/EPTs shall complete an Emergency Exercise Planning and Authorization Form (004130340). The EPC and Emergency Management SPOC are jointly responsible for communicating the planned exercise to key internal stakeholders prior to a Field Exercise. U.S. and Canada Business Units shall communicate their planned field exercise(s) at least two months prior to the event, and Mexico will communicate their planned field exercise(s) one month prior to the event.

- EPC distributes the completed form to:
  - EPT Members
  - Region or Facility Leadership
  - Emergency Management Team (prepare-respond@transcanada.com)
- Emergency Management SPOC notifies following Corporate Support EPCs by forwarding the completed form to:
  - Regulatory Compliance EPC
  - Control Center (Liquids / Gas) EPC
  - Public Affairs & Communications EPC
  - CEOC Manager Team (CA / US / MX)
  - EPC of all corporate support departments participating in the exercise planning or exercise play.

Exercise Design Guidelines

TC Energy believes that exercises are intended to be learning and coaching opportunities that further enhance our capacity to respond while reinforcing correct behaviors, KSAs and past lessons learned.

'Surprise' or 'No-notice' exercises shall not be conducted except where required by a regulator or otherwise pre-approved by the Emergency Management Team (i.e., where the entire response team is at a very high-functioning level of KSAs.) Drills that are targeted to reinforce repetitive skills (e.g., a muster stationdrill) are exempted from this requirement.

6.4. Agency and ResponderOutreach

To assist emergencyservice agencies in understanding TC Energy's operations and Emergency Management Program, the Region/Facility EPC, Public Awareness, and Community Relations shall work collaboratively to hold awareness sessions withemergencyservice agencies that have made requests through TC Energy's Public Awareness Program.

The following aids shall be considered for use during the public awareness sessions:

- Pamphlet entitled "EmergencyResponse Guide for EmergencyService Agencies".
- EmergencyServices PowerPoint presentation.
- Video – Partners in Safety(Your guide topipeline emergencyresponse)

The Exercise/Incident Feedback Form (009097294)is used to collect feedback following exercises and emergencies.

Regardless of how feedback is collected, paper or electronic feedback records must be kept on file for further reference. Meeting purpose, scope, audience, and outcomes must also be recorded.

6.4.1. Local Authority Awareness

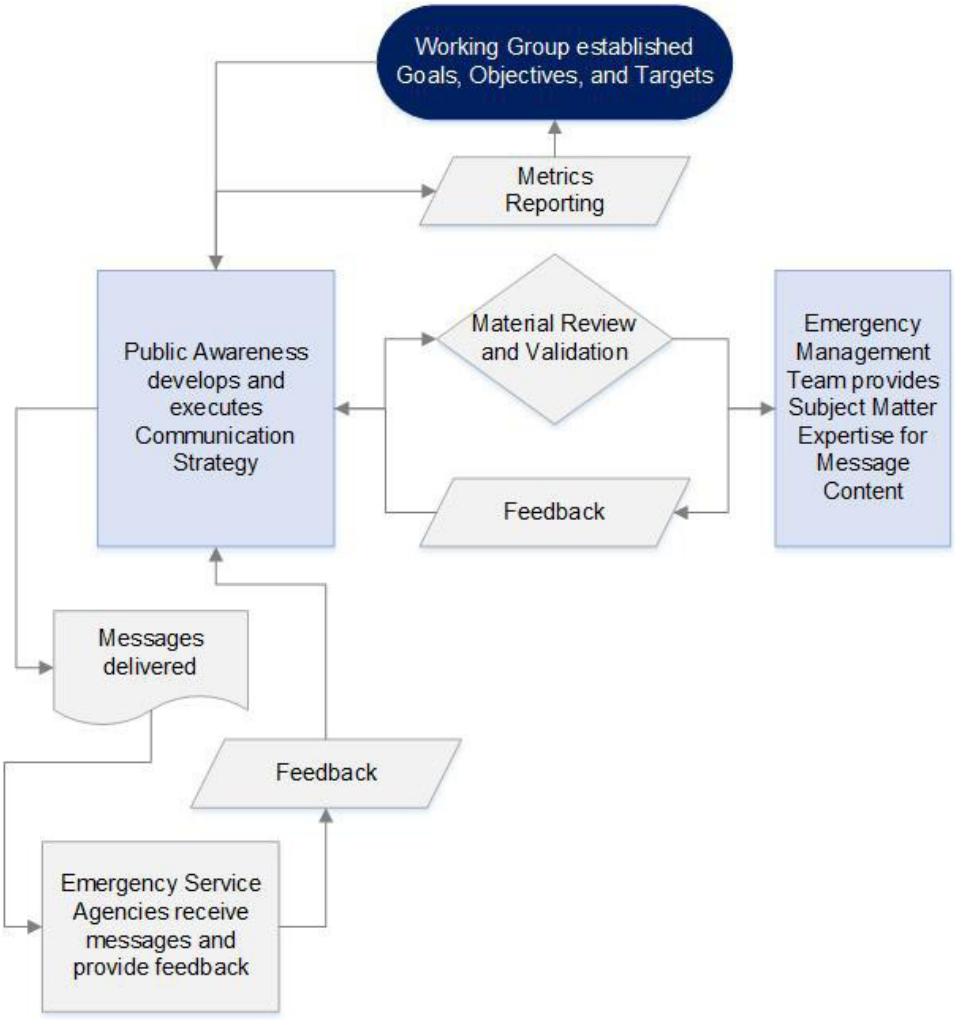
Local Authorities are informed of TC Energy's operations and Emergency Management Program through the Public Awareness Program. At a minimum, local authorities shall be knowledgeable about the following:

- Product Awareness
- TC Energy's Emergency Number
- Roles andResponsibilities for the Communityand TC Energy
- Communicationprocess during an emergencyin or near their Community

The Public Awareness and Emergency Management Working Group is comprised of senior specialists from the Stakeholder Relations and Emergency Management Teams. Inrelation to the illustration below, this Working Group provides goals, objectives, and targets all stakeholders in the program including emergencyservice agencies.

The Stakeholder Relations Team collaborates with the Emergency Management Team on the contents of materials specifically developed for emergencyservice agencies before any correspondence/materials are distributed externally. The Emergency Management Team ensures the accuracyof the content and makes all necessary corrections. Then, the Stakeholder Relations Team sends annual correspondence to the emergencyservice agencies. The information covers such topics as product awareness and emergency response for emergencyresponders when attending a TC Energy emergency. The

Stakeholder Relations Team solicits feedback from their stakeholders and shares this information with the Emergency Management team and if appropriate, to the Emergency Management Steering Committee as well.



Eachemergency service agency is contactedthrough annual correspondence sent by the Stakeholder Relations Team as noted above. The list will be used to ascertainwhether emergency service agencies offer the services and/or equipment listed in the table below. If they do not supply these services or resources, additional procedures may be developed to ensure local TC Energy emergencyresponse plans remaincomprehensive. TC Energy does not rely on public sector emergencyservices to clean-up an emergency site; however, emergency services retaintheir authorities and responsibilities for response to a TC Energyemergency like they would for any other emergency.

Agency	Potential Actions
Law Enforcement Agencies	• Protect yourself and the public • Provide traffic and crowd control • Secure the site and establish a safe zone to ensure public safety • Evacuate unnecessary personnel • Provide first aid as needed • Allow TC Energy employees clear and quick access to the Emergency site
Fire Department	• Protect yourself and the public • Contain secondary fires if safe to do so • Monitor LEL, H_2S and benzene if possible • Eliminate all ignition sources if safe to do so • Provide first aid as needed • Allow TC Energy employees clear and quick access to the emergency site
Emergency Medical Services	• Protect yourself and the public • Provide first aid as needed • Allow TC Energy employees clear and quick access to the Emergency site

I. Appendix– Acronyms and Definitions

Acronyms and Abbreviations	
Term	***Definition***
BU	Business Unit
CEOC	Corporate Emergency Operations Center
CER	Canadian Energy Regulator
CMP	Crisis Management Program
CMT	Crisis Management Team
COML	Communicati ons Unit Leader
COMP	Compensati on Unit Leader
CPG	Columbia Pipeline Group
CPS	Contributory Pipeline Segment
CS&E	Community, Safety, and Environment
DIVS	Division Supervisor
DMOB	Demobilization Unit Leader
DOCL	Documentation Unit Leader
EDRC	Estimated Daily Recovery Capacity
EHSM	Environmental, Health, and Safety Management
ENVL	Environmental Unit Leader
EOC	Emergency Operations Center
EPC	Emergency Preparedness Coordinator
EPT	Emergency Preparedness Team
ERAP	Emergency Response Action Plan
ERG	Emergency Response Guidebook
ERP	Emergency Response Plan
FACL	Facilities Unit Leader
FDUL	Food Unit Leader
FOBS	Field Observer
FOSC	Federal On-Scene Coordinator
FSC	Finance/Admini stration Section Chief
HBI	Hazard and Barrier Inventory
HSR	Highly Sensitive Receptor
HS&E	Health, Safety, and Environment
IAP	Incident Action Plan
IC	Incident Commander
ICC	Incident Coordination Center
ICP	Incident Command Post
ICS	Incident Command System
IMAT	Incident Management Assistance Team
IMT	Incident Management Team
LNG	Liquified Natural Gas
LOFR	Liaison Officer
LSC	Logistics Section Chief
MOC	Management of Change

Acronyms and Abbreviations	
Term	***Definition***
NPREP	Nation Preparedness for Response Exercise Program
OCC	Oil Control Center
OPBD	Branch Director
OSC	Operations Section Chief
OSRO	Oil Spill Removal Organization
PIO	Public Information Officer
PHMSA	Pipeline and Hazardous Materials Safety Administration
PROC	Procurement Unit Leader
PSAP	Public Safety Access Point (or emergency dispatch center)
PSC	Planning Section Chief
QI	Qualified Individual
REOC	Regional Emergency Operations Center
RESL	Resource Unit Leader
SCADA	Supervisory Control and Data Acquisition
SCAT	Shoreline Clean up and Assessment Team
SECM	Security Manager
SITL	Situation Unit Leader
SOFR	Safety Officer
SPOC	Single Point of Contact
SPUL	Supply Unit Leader
STAM	Staging Area Manager
SOSC	State On-Scene Coordinator
STCR	Strike Team Leader
SUBD	Support Branch Director
SVBD	Service Branch Director
TFLD	Task Force Leader
THSP	Technical Specialist
TOMS	TC Energy's Operational Management System
TIME	Time Unit Leader
TSB	Transportation Safety Board
TSC	Temporary Storage Capacity
UC	Unified Command
WCD	Worst Case Discharge

Terms and Definitions	
Term	***Definition***
Abnormal Condition	Any event, circumstance, or outcome, that: (1) is not generally or routinely anticipated but is reasonably foreseeable and probable during emergency management related activities (2) reasonably could, if it materializes, have either a significant impact upon the health, safety, or security of TC Energy affiliate employees, contractors, or the public, or a significant impact on the environment, or an impact to customers, and (3) is not effectively addressed by existing legislative, regulatory, engineered, administrative, procedural, other internal or external controls or existing contingency plans, either alone or in combination.
Accident	An undesired or unplanned event that results in harm to a person and/or damage to property.
Accident (as defined in 49 CFR 195)	An event that results in the release of the hazardous liquid resulting in an event described in § 195.50 of any failure that: (1) Caused a death or a personal injury requiring hospitalizati on; (2) Resulted in either a fire or explosion not intentionally set by the operator; (3) Caused estimated property damage, including cost of clean up and recovery, value of lost product, and damage to the property of the operator or others, or both, exceeding $50,000; (4) Resulted in pollution of any stream, river, lake, reservoir, or other similar body of water that violated applicable water quality standards, caused a discoloration of the surface of the water or adjoining shoreline, or deposited a sludge or emulsion beneath the surface of the water or upon adjoining shorelines; or (5) In the judgment of the operator was significant even though it did not meet the criteria of any other paragraph of this section.
Air Operations Branch Director	Organize air operations, request/declare restricted air space, air traffic control requirements, supervise all air operations, and coordinate with Federal Aviation Authorities.
Alberta Energy Regulator (AER)	The AER is the energy regulator for provincially-regulated facilities in Alberta. At TC Energy, this includes the underground gas storage facilities and TC Energy's liquids pipelines (Grand Rapids, Northern Courier and White Spruce). The AER also has some specific Alberta Environment and Parks (AEP) responsibilities for provincially regulated facilities.
Allocated Resources	Resources dispatched to an incident.
Assigned Resources	Resources checked in and assigned work tasks on an incident.
Assignments	Tasks given to resources to perform within a given operational period, based upon tactical objectives in the Incident Action Plan.
Assistant	Title for subordinates of the Command Staff positions. The title indicates a level of technical capability, qualifications, and responsibility subordinate to the primary positions.
Agency Executive	Chief Executive Officer (or designee) of the agency or jurisdiction that has responsibility for the incident. At TC Energy the IST Leader - or their on-

Terms and Definitions	
Term	***Definition***
	scene designate (e.g. Regional Director) – is the Agency Executive (also called AgencyAdministrator.) There is only one Agency Executive at a time and is the single representative to the Incident Commander.
BC Oil & Gas Commission (BCOGC)	The BCOGC is the energy regulator for provincially-regulated facilities in British Columbia.
Branch	The organizational level having functional or geographic responsibility for major parts of the Operations or Logistics functions. The Branch level is organizationally between Section and Division/Group in the Operations Section, and between Section and Units in the Logistics Section. Branches are identified by the use of Roman numerals or by functional name (e.g., medical, security, etc.).
Canadian Energy Regulatory	The regulator of TC Energy's Canadian federally-regulated pipelines. The CER's top priority in any emergency is to make sure that people are safe and secure, and that property and the environment are protected. Any time there is a serious incident, the CER Inspectors may attend the site to oversee a company's immediate response. The CER will require that all reasonable actions are taken to protect employees, the public and the environment. Further, the CER will verify that the regulated company conducts adequate and appropriate clean-up and remediation of any environmental effects caused by the incident.
Chain of Command	A series of management positions in order of authority.
Chief	The ICS title for individuals responsible for functional Sections: Operations, Planning, Logistics, and Finance/Administration.
Command	The act of directing and/or controlling resources by virtue of explicit legal, agency, or delegated authority. May also refer to the Incident Commander.
Command Staff	The Command Staff consists of the Public Information Officer, Safety Officer and Liaison Officer. They report directly to the Incident Commander. They may have an Assistant or Assistants, as needed.
Communications Unit Leader	Prepares and implements the Incident Communication Plan, distributes and maintains communications equipment, supervises the Incident Communications Center and establishes adequate communications over the incident.
Company First Responder	A TC Energy employee, mutual aid partner, contractor or anyone representing the Company first-on-scene of an emergency. The Company First Responder is the initial TC Energy Incident Commander, functioning within a narrow scope of responsibilities until relieved by a fully qualified Incident Commander. As with incident command, there is only one designated Company First Responder at a time; all other company personnel on-scene are their resources.
Compensation/Claims Unit	Functional Unit within the Finance/Administration Section responsible for financial concerns resulting from property damage, injuries, or fatalities at the incident.
Compensation/Claims Unit Leader	Responsible for handling injury compensation and claims.

Terms and Definitions	
Term	***Definition***
Communicati on Unit	An organizational Unit in the Logistics Section responsible for providing communication services at an incident. A Communications Unit may also be a facility (e.g., a trailer or mobile van) used to provide a major part of an Incident Communications Center.
Contingency Planning	The process for developing alternative response strategies for a possible future event or circumstance.
Corporate Emergency Operations Center	An entity led by a CEOC Manager and comprised of those persons acting in support of a Regional/Facility EOC and/or emergency response personnel at an emergency site. This entity encompasses any virtual EOC personnel and any personnel physically present in one or more CEOC rooms located in Calgary, Houston and Mexico City.
Cost Unit	Functional Unit within the Finance/Administration Section responsible for tracking costs, analyzing cost data, making cost estimates, and recommending cost-saving measures.
Cost Unit Leader	Provides cost analysis data for the incident. This Unit shall ensure that equipment and personnel for which payment is required are properly identified, obtain, and record all cost data, and analyze and prepare estimates of incident costs. The Cost Unit also provides input on cost estimates for resource use to the Planning Section. The Cost Unit must maintain accurate information on the actual costs of all assigned resources.
Crisis	Any incident, outside the normal scope of the company management structure (e.g. Non-Operational Incident), that has potential to cause significant security, financial, operational or reputation impacts.
Crisis Management	Strategic action to effectively manage a crisis event which has the potential to greatly affect the operations and credibility of the Company. Crisis management includes anticipating, preventing, preparing and reacting to a crisis which falls outside the normal Company management structure.
Critical Incident Stress Management	A program to accelerate recovery of people who are having normal reactions to abnormal events.
Demobilization Unit	Functional Unit within the Planning Section responsible for assuring orderly, safe, and efficient demobilization of incident resources.
Demobilization Unit Leader	Assists in ensuring that resources are released from the incident in an orderly, safe, and cost- effective manner.
Department of Transportation – Pipeline and Hazardous Materi als Safety Administration (PHMSA)– U.S.	U.S. Federal Regulatory Agency whose mission is to serve the United States by ensuring a fast, safe, efficient, accessible, and convenient transportation system that meets the vital national interests and enhances the quality of life the American people, today and into the future.
Deputy	A fully qualified individual who, in the absence of a superior (Commander, Chief, or Director), could be delegated the authority to manage a functional operation or perform a specific task. In some cases, a Deputy could act as relief for a superior and therefore must be fully qualified in the position. Deputies can be assigned to the Incident Commander, General Staff, and Branch Directors.

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Detection	The instant the operator has an indication of an abnormal event that is not verifiable through SCADA system or by repetitive acknowledgement. This could be a single call from a passer-byer. During this stage the operator is conducting a number of activities to determine if there is an operational emergency.
Director	The ICS title for individuals responsible for supervision of a Branch.
Divisions	Divisions are used to divide an incident into geographical areas of operation. A Division is located within the ICS organization between the Branch and the Task Force/Stri ke Team. (See Group.)
Documentation Unit	Functional Unit within the Planning Section responsible for collecting, recording, and safeguardi ng all documents relevant to the incident.
Documentation Unit Leader	Provides duplication services, including written Incident Action Plans. Maintai ns and archives all incident-related documentati on.
Emergency	An unforeseen or imminent event which requires prompt coordination of resources, special communications and/or heightened authority for employees to protect the health, safety, or welfare of people first, and then to limit damage to property, the environment or company operations. (Note: An 'Alert' classification is not an emergency.)
Emergency Operations Center	The physical location(s) within Region/Facility or major people facility which has been designed unequipped support emergency response personnel at an emergency site. (See also Virtual EOC.)
Emergency Services	Local emergency response agencies - Police, Fire and Ambulance services. May include utilities emergency responders, municipal Emergency Measures Coordinators and staff.
Emergency Measures/Management Organization	A local or provincial organizati on in Canada responsible for the development and maintenance of effective provincial emergency preparedness, response and recovery measures with a view to mitigating the human suffering and loss of property caused by actual or imminent emergencies or disasters. Also known as an Emergency Management Organization or Agency.
Emergency Planning Zone	A calculated distance used to determine an impacted area based on the size of pipe, pressure and product within the pipeline.
Emergency Preparedness Coordinator	This person leads the Emergency Preparedness Team in accomplishing their duties, and represents the Region/Facility on issues dealing with Emergency Preparedness and Response.
Emergency Preparedness Team (EPT)	A permanent or ad hoc team that represents the majority of the Areas within the Region/Facili ty on Emergency Preparedness matters. This team ensures the Region/Facility is in compliance with the requirements of the Emergency Management Program, and takes the lead role in organizing emergency exercises and training for the Region/Facility.
Environmental Protection Agency	An independent federal agency established to coordinate programs aimed at reducing pollution and protecting the environment.
Environmental Unit Leader	Consults with natural resource trustees, provides input on wildlife protection strategies, and determines the extent of contamination,

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	provides analysis of weather forecasts, monitors the environmental consequences of cleanup actions, identifies the need for permits and develops disposal plans. Shoreline cleanup and assessment, environmental surveillance, and remediation planning.
Environmental Incident	A release or suspected release into the air, land, or water of any material or Hazardous Substance that has potential to cause damage to the environment, impact property, or have an adverse effect on public health.
Event	A planned, non-emergency activity. ICS can be used as the management system for a wide range of events, e.g., parades, concerts, sporting events, emergency events, etc.
Exercise Controllers	Selected group of people who assist with conducting local emergency exercises. Their roles are to document actions and ensure the exercise stays on track through coaching and directing those participants in the exercise.
Facilities Unit	Functional Unit within the Support Branch of the Logistics Section that provides fixed facilities for the incident. These facilities may include the Incident Base, feeding areas, sleeping areas, sanitary facilities, etc.
Facilities Unit Leader	Sets up and maintains incident facilities, responsible for facility security and facility maintenance services (sanitati on, lighting, and cleanup).
Federal	Of or pertaining to the Federal Government of Canada or of the United States of America.
Federal Emergency Management Agency – U.S.	The lead emergency management and preparedness agency in the U.S. FEMA's Mission is to reduce the loss of life and property and protect communities nationwide from all hazards, including natural disasters, acts of terrorism, and other man-made disasters. FEMA leads and supports the nation in a risk-based, comprehensive Emergency Management Program of preparedness, protection, response, recovery, and mitigation.
Federal Energy Regulatory Commission – U.S.	The Federal Energy Regulatory Commission, or FERC, is an independent agency in the U.S. that regulates the interstate transmission of natural gas, oil, and electricity. FERC also regulates natural gas and hydropower projects.
Finance/Administration Section	The Section responsible for all incident costs and financial considerations. Includes the Time Unit, Procurement Unit, Compensation/Claims Unit, and Cost Unit.
Finance/Administration Section Chief	Monitors costs related to the incident. Provides accounting, procurement, time recording, cost analyses, contract negotiation/monitoring and compensation for injury or damage to property.
First Responder	Individuals who in the early stages of an incident are responsible for the protection and preservation of life, property, evidence, and the environment, including emergency response providers such as Fire, Police or Ambulance personnel. [See also Company First Responder].
Food Unit	Functional Unit within the Service Branch of the Logistics Section responsible for providing meals for incident personnel.

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Food Unit Leader	Responsible for providing meals and drinking water for incident personnel, and obtains the necessary equipment and supplies to operate food service facilities at base camp.
Function	Function refers to the five major activities in ICS: Command, Operations, Planning, Logistics, and Finance/Administration. The term function is also used when describing the activity involved, e.g., the planning function. A sixth function, Intelligence, may be established, if required, to meet incident management needs.
Functional Plan	Defines how the activities and notifications outlined in each support department's profile of service will be executed (i.e. contact lists, maps/drawings, reference documents, etc.).
General Staff	A group of incident management personnel organized according to function and reporting to the Incident Commander. The General Staff normally consists of the Operations Section Chief, Planning Section Chief, Logistics Section Chief, and Finance/Administration Section Chief.
Ground Support Unit	Functional Unit within the Support Branch of the Logistics Section responsible for the fueling, maintaining, and repairing of vehicles, and the transportation of personnel and supplies.
Ground Support Unit Leader	Prepares the Transportation Plan. Arranges for, activates, and documents the fueling and maintenance of assigned ground transportation. Arranges for the transportation of personnel, supplies, food, and equipment.
Group	Groups are established to divide the incident into functional areas of operation. Groups are composed of resources assembled to perform a special function not necessarily within a single geographic division. (See Division.) Groups are located between Branches (when activated) and Resources in the Operations Section.
Hazard	A situation that poses a level of threat to life, health, property, or the environment. Most hazards are dormant or potential, with only a theoretical risk of harm; however, once a hazard becomes "active", it can create an emergency situation.
HAZWOPER	As used in this document, the Hazardous Waste Operations and Emergency Response standard refers to the training program established by United States Occupational Safety and Health Administration.
Heightened Authority	Normal levels of authority will change – any team member may be in charge, spending limit authorities may change.
Imminent	Liable to happen soon; impending(i.e. floods, tornadoes, etc.).
Incident (as defined by Onshore Pipeline Regulations, 1999 (SOR/99-294))	An occurrence that results in: (a) the death of or serious injury to a person; (b) a significant adverse effect on the environment; (c) an unintended fire or explosion; (d) an unintended or uncontained release of LVP hydrocarbons more than 1.5m3; (e) an unintended or uncontrolled release of gas or HVP hydrocarbons; (f) the operation of a pipeline beyond its design limits as determined under the latest version of CSA Z662 or CSA Z276 or any operating limits imposed by the Board
Incident (as defined in 49 CFR 191)	(1) An event that involves a release of gas from a pipeline, or of liquefied natural gas, liquefied petroleum gas, refrigerant gas, or gas from an LNG

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	facility, and that results in one or more of the following consequences: (I) A death, or personal injury necessitating in-patient hospitalization; (ii) Estimated property damage of $50,000 or more, including loss to the operator and others, or both, but excluding cost of gas lost; (iii) Unintentional estimated gas loss of three million cubic feet or more; (2) An event that results in an emergency shutdown of an LNG facility. Activation of an emergency shutdown system for reasons other than an actual emergency does not constitute an incident. (3) An event that is significant in the judgment of the operator, even though it did not meet the criteria of paragraphs (1) or (2) of this definition.
Incident (as defined by the TC Energy Incident Management Program)	A single or series of unplanned events that result in actual or potential (Near Hit) undesirable consequences with direct impacts to health, safety, environment, asset (damage by contact), and/or security and a secondary impact on business reputation, community, and/or operations.
Incident Action Plan	An oral or written plan containing general objectives reflecting the overall strategy for managing an incident. It may include the identification of operational resources and assignments. It may also include attachments that provide direction and important information for management of the incident during one or more operational periods.
Incident Commander	The TC Energy employee given the authority to command-and-control company operations at the site of an emergency. The IC sets the incident objectives, strategies, and priorities and has overall responsibility for the incident.
Incident Command Post	The field location at which the primary tactical-level, on-scene incident command functions are performed. The ICP may be collocated with the incident base or other incident facilities.
Incident Command System	A standardized on-scene emergency management construct specifically designed to provide for the adoption of an integrated organizational structure that reflects the complexity and demands of single or multiple incidents, without being hindered by jurisdictional boundaries. ICS is the combination of facilities, equipment, personnel, procedures, and communications operating within a common organizational structure, designed to aid in the management of resources during incidents. It is used for all kinds of emergencies and is applicable to small as well as large and complex incidents. ICS is used by various jurisdictions and functional agencies, both public and private, to organize field-level incident management operations.
Incident Coordination Center	A physical or virtual venue through which project leadership and support staff coordinate and supply information and assistance to the Prime Contractor(s) and/or responding personnel during a significant incident or emergency event.
Incident Management Team	The Incident Commander and appropriate Command and General Staff personnel assigned to an incident.

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Incident Objectives	Statements of guidance and direction necessary for the selection of appropriate strategy(ies), 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.
Incident Support Team	Senior management engaged during all significant incidents and emergencies that occur in TC Energy at the discretion of the Vice President of the affect facility / line of business.
Joint Information Center	A facility established to coordinate all incident-related public information activities when using National Incident Management System (NIMS) ICS in the United States. It is the central point of contact for all news media at the scene of the incident. Public information officials from all participating agencies should collocate at the JIC.
Joint Information System	Integrates incident information and public affairs into a cohesive organization designed to provide consistent, coordinated, timely information during crisis or incident operations when using National Incident Management System (NIMS) ICS in the United States. The mission of the JIS is to provide a structure and system for developing and delivering coordinated interagency messages; developing, recommending, and executing public information plans and strategies on behalf of the Incident Commander; advising the Incident Commander concerning public affairs issues that could affect a response effort; and controlling rumors and inaccurate information that could undermine public confidence in the emergency response effort.
Jurisdiction	A range or sphere of authority. Public agencies have jurisdiction at an incident related to their legal responsibilities and authority. Jurisdictional authority at an incident can be political or geographical (e.g., city, county, tribal, State, or Federal boundary lines) or functional (e.g., law enforcement, public health).
Jurisdictional Agency	The agency having jurisdiction and responsibility for a specific geographical area, or a mandated function.
Leader	The ICS title for an individual responsible for a Task Force, Strike Team, or functional unit.
Liaison	A form of communication for establishing and maintaining mutual understanding and cooperation.
Liaison Officer	A member of the Command Staff responsible for coordinating with representatives from cooperating and assisting agencies. The Liaison Officer may have Assistants.
Local Authority	The elected officials of a city, town, village, county, or municipal district; or the park superintendent of a national park; or, in some cases, the chief and band council of an indigenous/tribal band. The local Fire Chief, Police Chief, Mayor, Reeve, etc. Local Emergency Measures/Management Organization, Disaster Services etc.
Logistics	Providing resources and other services to support incident management.

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Logistics Section	The Section responsible for providing facilities, services, and materials for the incident.
Logistics Section Chief	Provides resources and needed services (communications, medical, food, facilities, etc.) to support the achievement of the incident objectives.
Management by Objective	A management approach that involves a four-step process for achieving the incident goal. The Management by Objectives approach includes the following: establishing overarching objectives; developing and issuing assignments, plans, procedures, and protocols; establishing specific, measurable objectives for various incident management functional activities and directing efforts to fulfill them, in support of defined strategic objectives: and documenting results to measure performance and facilitate corrective action.
Managers	Individuals within ICS organizational Units that are assigned specific managerial responsibilities, e.g., Staging Area Manager or Camp Manager.
Major People Facilities	Identified as facilities primarily administrative or service center in nature. Examples of TC Energy's Major People Facilities are: • TC Energy Head Office, Calgary, Alberta Canada • USPC Head Office Houston, Texas, USA • TC International - Mexico City Office, Mexico City, MX • Region/Facility Offices
Medical Unit	Functional Unit within the Service Branch of the Logistics Section responsible for the development of the Medical Emergency Plan, and for providing emergency medical treatment of incident personnel.
Medical Unit Leader	Provides first aid and light medical treatment for personnel assigned to the incident and prepares procedures for a major medical emergency.
Mobilization	The process and procedures used by all organizations (Federal, State, Provencal, and local) for activating, assembling, and transporting all resources that have been requested to respond to or support an incident.
Multiagency Incident	An incident where one or more agencies assist a jurisdictional agency or agencies. May be single or unified command.
Municipality	The area comprising a city, town, new town, village, hamlet, county, municipal district, improvement district or special area.
Response Assistance Agreement Template (004140448)	Written agreement between agencies and/or jurisdictions that they will assist one another on request, by furnishing personnel, equipment, and/or expertise in a specified manner.
National Incident Management System	A system that provides a consistent nationwide approach for Federal, State, local, and tribal governments; the private sector; and nongovernmental organizations to work effectively and efficiently together to prepare for, respond to, and recover from domestic incidents, regardless of cause, size, or complexity. To provide for interoperability and compatibility among Federal, State, local, and tribal capabilities, the NIMS includes a core set of concepts, principles, and terminology. These are identified as the ICS; multiagency coordination systems; training; identification and management of resources (including systems for classifying types of resources); qualification and certification; and the

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	collection, tracking, and reporting of incident informati on and incident resources.
Natural Disasters	A major adverse event resulting from the natural processes of the Earth (i.e., earthquakes, floods, volcanic eruptions, etc.).
Observer	Someone who is invited to observe an emergency exercise. This person has no responsibilities to the exercise.
Occupational Safety and Health Administration - U.S.	An administrati on under the United States Department of Labor. OSHA's role is to assure safe and healthful working conditions for working men and women; by authorizing enforcement of the standards developed under the Act; by assisting and encouraging the States in their efforts to assure safe and healthful working conditions; by providing for research, informati on, education, and training in the field of occupational safety and health.
Office of Pipeline Safety– U.S.	The Department of Transportation's (DOT) Pipeline and Hazardous Material Safety Administration (PHMSA), acting through the Office of Pipeline Safety (OPS), administers the Department's national regulatory program to assure the safe transportation of natural gas, petroleum, and other hazardous materials by pipeline. Code develops regulations and other approaches to risk management to assure safety in design, construction, testing, operation, maintenance, and emergency response of pipeline facilities.
Officer	The ICS title for the personnel responsible for the Command Staff positions of Safety, Liaison, and Public Information.
Operational Period	The period scheduled for execution of a given set of operation actions as specified in the Incident Action Plan. Operational Periods can be of various lengths, although usually not over 24 hours.
Operations Section	The Section responsible for all tactical operations at the incident. Includes Branches, Division s and/or Groups, Task Forces, Strike Teams, Single Resources, and Staging Areas.
Operations Section Chief	Conducts operations to reach the incident objectives. Establishes the tactics and directs all operational resources.
Single Point of Contact (SPOC)	A member of the Corporate Emergency Management Team whose job is to liaise and build working relationships with their respective EPCs, provide support, guidance, and tools for consistent, efficient, and effective Program implementation, and solicit feedback for Program improvements.
Sure Call	TC Energy's CA-based 3rd Party Emergency Answering Service for some emergency lines.
Pipeline	A line that is used or to be used for the transmission of oil, gas, or any other commodity and that connects a province with any other province or provinces or extends beyond the limits of a province or the offshore area as defined in section 123, and includes all branches, extensions, tanks, reservoirs, storage facilities, pumps, racks, compressors, loading facilities, interstation systems of communication by telephone, telegrapher radio and real and personal property, or immovable and movable, and works

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	connected to them but does not include a sewer or water pipeline that is used or proposed to be used solely for municipal purposes.
Planning Meeting	A meeting held as needed throughout the duration of an incident, to select specific strategies and tactics for incident control operations, and for service and support planning. On larger incidents, the Planning Meeting is a major element in the development of the Incident Action Plan.
Planning Section	Responsible for the collection, evaluation, and dissemination of information related to the incident, and for the preparation and documentation of Incident Action Plans. The Section also maintains information on the current and forecasted situation, and on the status of resources assigned to the incident. Includes the Situation, Resources, Documentation, and Demobilization Units, as well as Technical Specialists.
Planning Section Chief	Supports the incident action planning process by tracking resources, collecting/analyzing information, and maintaining documentation.
Policy Group	A group that advises on and/or determines incident-specific policy, sets overall direction, and conducts extraordinary approvals. At TC Energy the Incident Support Team (IST) members serve as a policy group for the IST Leader, who in turn may counsel the IC and/or EOC managers.
Procurement Unit Leader	Responsible for financial matters involving vendor contracts.
Profile of Service	The Profile of Service specifies the emergency activities for the department. The Profile of Service specifies the individuals the Support Department will contact, but each Support Department has a Functional Plan defining how those contacts and activities will be executed.
Program Leaders	Senior Management, Directors, EPC/EPT and Emergency Management Program team leaders.
Public Information Officer	Provides information to internal and external stakeholders and rightsholders, including the media or other organizations seeking information about the incident or event.
Reception Center	An evacuation center. Typically set up and administered by the local EMO or Public Health Agency, usually staffed by a non-profit such as the Red Cross.
Recognition	The instant when an emergency has been assumed because any of the following have occurred: • It has been verified by SCADA; or • Repeated calls from the public, emergency response agencies, local authorities, industry partners have been received by the emergency line identifying an operational upset; or • Abnormal conditions are such that declaration of an emergency is the best course of action
Residence	A permanent structure which is designed for habitation and is regularly inhabited by humans.
Resources	Personnel and major items of equipment, supplies, and facilities available or potentially available for assignment to incident operations and for which status is maintained. Resources are described by kind and type and

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	may be used in operational support or supervisory capacities at an incident or at an EOC.
Response Times	Measured from recognition to the activation of emergency response activities.
Repair and Restoration	The repair process initially begins during the emergency phase which involves determining resources needed to repair any damages to company facilities. Repairs will not be conducted until the emergency phase is over i.e. no further risk or damage to people, property, or the environment. Restoration activities including restoring an area back to its pre-emergency state. Restoration activities may go on for an extended period of time (long-term) depending on the severity of the impacts. Restoration can include environmental remediation activities.
Repair and Restoration Coordinator	The Repair and Restoration Coordinator will facilitate the repair and restoration activities with the Region/Facility (contractors and other resources) and those CEOC Support Departments who continue to have a role to play once an emergency event is over.
Resource Management	Efficient incident management requires a system for identifying available resources at all jurisdictional levels to enable timely and unimpeded access to resources needed to prepare for, respond to, or recover from an incident. Resource management under the ICS includes mutual aid agreements; the use of special Federal, State/Provincial, local, and tribal teams; and resource mobilization protocols.
Resources Unit	Functional Unit within the Planning Section responsible for recording the status of resources committed to the incident. The Unit also evaluates resources currently committed to the incident, the impact that additional responding resources will have on the incident, and anticipated resource needs.
Resource Unit Leader	Is responsible to ensure that all assigned personnel and resources have checked in at the incident. Resources consist of personnel, teams, crews, aircraft, and equipment available for assignment to or employment during an incident.
Safety Officer	Ensures safety of personnel, and use of safe practices on site. NOTE: This position must be assigned immediately at the site of an emergency.
Section	The organizational level having responsibility for a major functional area of incident management, e.g., Operations, Planning, Logistics, Finance/Administration, and Intelligence (if established). The section is organizationally situated between the Branch and the Incident Command.
Sensitive Area, High Consequence Area, or Highly Sensitive Receptor	An area which is politically, environmentally, or culturally sensitive in nature (i.e., Municipality, indigenous/tribal land claims, etc.) or where TC Energy's facility is located within a prescribed distance from residents.
Serious Injury	Includes an injury that results in: (a) the fracture of a major bone; (b) the amputation of a body part; (c) the loss of sight in one or both eyes; (d) internal hemorrhage; (e) third degree burns; (f) unconsciousness; or (g) the loss of a body part or function of a body part.

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Term	***Definition***
Service Branch	A Branch within the Logistics Section responsible for service activities at the incident. Includes the Communication, Medical, and Food Units.
Significant Adverse Effect	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.
Significant Incident	A Significant Incident is an incident or emergency of: a) regulatory non-compliance; b) operational or project disruption; c) serious potential for growth; or d) reputational impact of such severity as to warrant the immediate notification of the Project or operating unit's Vice President (for the purposes of: • Accountability &/or oversight; • Authorizations &/or approvals; • Operational decisions; or • Executive notification.)
Situation Unit	Functional Unit within the Planning Section responsible for the collection, organization, and analysis of incident status information, and for analysis of the situation as it progresses. Reports to the Planning Section Chief.
Situation Unit Leader	Is responsible for collecting, processing, and organizing ongoing situation information; prepares situation summaries; and develops projections and forecasts of future events related to the incident.
Span of Control	The number of individuals a supervisor is responsible for, usually expressed as the ratio of supervisors to individuals. (Under ICS, an appropriate span of control is between 1:3 and 1:7, with optimum 1:5. Span of control is reduced based on higher risk.)
Special Communications	Communications with external and internal parties which are not the norm for regular business operations.
Staging Area	A site outside of an emergency area where equipment and resources are kept.
Staging Area Manager	Establishes staging area for resources brought to the site, determines any additional needs for equipment, feeding, sanitation and security, establishes check-ins and traffic control areas, obtains and issues receipts for supplies distributed and received.
Strategic	Strategic elements of incident management are characterized by continuous long-term, high-level planning by organizations headed by elected or other senior officials. These elements involve the adoption of long-range goals and objectives, the setting of priorities, the establishment of budgets and other fiscal decisions, policy development, and the application of measures of performance or effectiveness.
Strategy	The general direction selected to accomplish incident objectives set by the Incident Commander.
Supervisor	The ICS title for individuals responsible for a Division or Group.

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Term	***Definition***
Supply Unit	Functional Unit within the Support Branch of the Logistics Section responsible for ordering equipment and supplies required for incident operations.
Supply Unit Leader	Determines the number of supplies needed to support the incident. Responsible for ordering, receiving, storing, and distributing supplies and services nonexpendable equipment. All resources are placed through this unit and the unit maintains inventory and accountability of supplies and equipment.
Support Branch	A Branch within the Logistics Section responsible for providing personnel, equipment and supplies to support incident operations. Includes the Supply, Facilities and Ground Support Units.
Support Departments	Corporate Business Departments, which provide support to TC Energy's Emergency Management Program.
Support Resources	Non tactical resources under the supervision of the Logistics, Planning, or Finance/ Administrati on Sections, or the Command Staff.
Tactics	Deploying and directing resources on an incident to accomplish incident strategy and objectives.
Time Unit Leader	Responsible for recording time for incident personnel and rented hired equipment.
Transportation Safety Board– Canada	The Canadian federal investigator of marine, rail, aviation and commodity pipeline occurrences. The TSB's role is to advance transportation safety through the investigation of transportation occurrences in the marine, pipeline, rail, and aviation modes by determining the cause and contributing factors.
Unified Command	An authority structure in the Incident Command System where the role of incident commander is shared by two or more individuals, each already having authority in a different responding agency of jurisdiction. It is noted by its use of a common shared set of objectives, single Incident Action Plan, jointly nominated Operations Section Chief (where appropriate) and shared leadership by the Unified Commanders. Unified Command should be limited to five commanders or less.
US Coast Guard	The United States Coast Guard safeguards the United States maritime interests and environment. Additionally, they are the regulatory agency for spills in navigable waters.
Virtual Emergency Operations Center	A non-physical gathering of EOC personnel via conference line to collectively gather and share information about an incident to support emergency response personnel at an emergency site.

II. Appendix– ICS Forms

ICS Forms	
Form	**Description**
ICS Incident Action Plan Cover Sheet (006808916)	The Incident Action Plan Cover Sheet provides general information about and incident, including the incident name, current Operational Period, and make up of Incident Command.
ICS 201 Incident Briefing Form (008942416)	The Incident Briefing form provides the Unified Command (and the Command and General Staffs assuming command of the incident) with basic information regarding the response situation and the resources allocated to the incident. It is also a permanent record of the initial
ICS 202 Incident Objectives (007725303)	The Incident Objectives form describes the basic incident strategy, control objectives, and provides weather, tide and current information, and safety considerati ons for use during the next operational period. The attachments list at the bottom of the form also serves as a table of contents for the Incident Action Plan.
ICS 203 Organization Assignment List (007725304)	The Organization Assignment List provides ICS personnel with informati on on the units that are currently activated and the names of personnel staffing each position/unit. It is used to complete the Incident Organization Chart (ICS form 207-CG) which is posted on the Incident Command Post display. An actual organization will be event specific. Not all positions need to be filled. The size of the organizations dependent on the magnitude of the incident and can be expanded or contracted as
ICS 204 Assignment List (007725331)	The Assignment List(s) informs Division and Group supervisors of incident assignments. Once the assignments are agreed to by the Unified Command and General Staff, the assignment informati on is given to the appropriate Divisions and Groups.
ICS 205 Incident Radio Communications Plan (007725333)	The Incident Radio Communicati ons Plan is a summary of information obtained from the Radio Requirements Worksheet (ICS form 216) and the Radio Frequency Assignment Worksheet (ICS form 217). Information from the Radio Communications Plan on frequency assignments is normally noted on the appropriate Assignment List (ICS form 204-OS).
ICS 205a Communications List (007725332)	The Communicati ons List records methods of contact for personnel on scene
ICS 206 Medical Plan (007725334)	The Medical Plan informs incident personnel of the most accessible medical aid stations, emergency transportation, and hospitals. The Medical Plan is prepared by the Medical Unit Leader and reviewed by the Safety Officer.

ICS Forms	
Form	**Description**
ICS 207 Incident Organizations Chart (007725335)	The Incident Organization Chart is used to indicate what ICS organizational elements are currently activatedand the names of personnel staffing each element. The attached chartis an example of the kind of Organizational Chartused in the ICS. An actual organization will be event-specific. Not all positions need to be filled. The size of the organization is dependenton the magnitude of the incidentand can be expanded or contracted as necessary. Personnel responsible for managing organizational positions are listed in each box asappropriate.
ICS 208 Site Safety Plan (009279977)	The Site Safety Plan is an optional form thatmaybe included in the IAP. The Safety Officer may choose to record the Site safety Plan using other templates. All Site Safety Plans are completed by the Safety Officer.
ICS Form 209 Incident Status Summary (007725337)	The Status Summary: 1. Is used by Situation Unit personnel for posting informati on on Status Boards. 2. Is duplicated and provided to Command Staff members, giving them basic information for planning for the next operational period. 3. Provides informati on to the Information Officer for preparing news media
ICS 211e Check-In List - Equipment (007725338)	Equipment arriving at the incident may check in at various incident locations: however, all check in locationsshall use the Check-In List torecord equipment descriptions, identifiers, assignments, and
ICS 211p Check-In List - Personnel (006808423)	Personnel arriving at the incident may checkedin at various incident locations; however, all check in locationsshall use the Check-In List torecord names, assignments, and contact information.
ICS 213 General Message (007725340)	The General Message is used by: • Incident personnel torecord incoming messageswhich cannot be orally transmitted to the intended recipients. • Command Post and other incident personnel totransmit messages tothe Incident Communications Center for transmission via radio or telephone to the addressee. • Incident personnel tosend any message or notification toincident personnel which requires a hard-copy delivery;
ICS 213RR Resource Request (009618852)	The Resource Request Formis used by all incident personnel to request tactical and non-tactical resources.
ICS 214 Activity Log (007725342)	The Unit Log records details of unit activity, including strike team activity. These logs provide the basic reference from which toextract information for inclusion in any after-action report.
ICS 214 Chronological Log (007725341)	The Individual Log, while not required, records details of eachindividual's activities.These logs provide a basic reference from which toextract information for inclusion in any after-action report.

ICS Forms	
Form	**Description**
ICS 215 Operational Planning Worksheet (007725412)	This formcommunicates to the Resources Unitthe resources needed as a result of decisions made during the Tactics and Planning meetings. The Worksheet is used by the Resources Unitto complete the Assignment List (ICS form 204-OS) and by the Logistics Section Chief for ordering resources. The worksheet mayalso be used by the Resources Unit Leader tocomplete the Assignment ListAttachment(s) (ICS form 204a-OS), if the Operations
ICS 220 Air Operations Summary (007725413)	The Air Operations Summary provides the Air Operations Branch with the number, type, location, and specific assignments of aircraft.
ICS 221 Dembo Check-Out (007725414)	This form provides the Planning Section informati on on resource releases from the incident.
ICS 230 Daily MeetingSchedule (007725415)	The Daily Meeting Schedule records informati on about the daily scheduled meeting activities.
ICS 232 Resource at Risk Summary (00007725416)	The Resources at Risk Summary provides informati on about sites in the incident area which are sensitive due to environmental, archaeon-cultural, or socio-economic resources at risk, and identifies incident-specific priorities and issues. The information recorded here may be transferred to ICS form 232a-OS, which acts as a key to the Area Contingency Plan (ACP) or Geographic Response Plan (GRP) site
ICS 233 Open Action Tracker (009618855)	The Open Action Tracker is used by the Incident Commander/Unified Command (IC/UC) to assign and track tasks/actions to IMT personnel that do not rise to the level of being an Incident Objective.
ICS234 Work Analysis Matrix (009618856)	The Work Analysis Matrix is designed to help select the best strategies and tactics to achieve the operational objectives. This optional form assists staff in carrying out incident objectives by outlining the who, what, where, when, and how of the response. The tactics from this formcarry forward to the "Work Assignment" on the ICS-215. This form is simply a formalized version of how most OSCs tend to think to turn objectives into tactical field work.

III. Appendix– Emergency Planning Zones

As per the *CANUTEC Emergency Response Guidebook, 2016*, evacuationdistances for Crude Oil are:

- For Initial Isolationof Spills: 100 meters (330 feet) in all directions;
- For Large Spills 800 meters (0.5 miles) with evacuationof the Public within this zone;
- For Fires: 1.6 kilometers (1.0 miles) with evacuation of the Public within this zone

The information noted above, from the *Emergency Response Guidebook, 2016,* is used as a general reference if no other information is available. Various TC Energy operated pipelines have calculated Emergency Planning Zones (EPZ) to be more specific than information in the *Emergency Response Guidebook, 2016.* These specific calculations are included in the Emergency Planning Zone Listing (005435369) for natural gas pipelines.

For Information specific to Liquids Pipelines Operating Specifications (i.e. MAOP, flow/pressure rates), refer to the Keystone Emergency Response Plan Sections 1.1 and Appendix G

IV. Appendix- Procedures

Emergency Preparedness Procedures

The following TC Energy Operating Procedures (TOPs) are maintained by the Emergency Management Team and augment this Manual. These procedures must be followed as prescribed in the respective TOP to ensure adequate preparedness and safe and effective response to an emergency.

Title	Open Text#
Emergency Management System Maintenance	003849406
Emergency Management System Maintenance Liquid Pipelines	005621876
EMS Emergency Operations Center Checklist	004266666
EMS Incident Command Post Kit Requirements Checklist	003674777
Emergency Response Trailer Boat and ATV Inspections	005841347
Tier 2 Emergency Response Plan Development and Maintenance Procedure	013673254
Tier 3 Emergency Reference Documents Procedure	1017375940
Control Point and Geographic Response Plan (GRP) Development and Maintenance	014200975
Control Point Field Validation Task Package	1006922531

Emergency Response Procedures

Specific procedures for response toidentified hazards are included in Tier II Emergency Response Plans where the procedures are specifically tailored to the asset andrisk.

The procedures below augment the Tier II Emergency Response Plans and may be applied where applicable, this is not an exhaustive list of TC Energy's emergency procedures, and the applicable Tier II and Tier III Emergency Response Plans are referenced first for initial response procedures.

Hazard Specific Response Procedures
Workplace Critical Injury and Fatalities
TC Energy assets are susceptible to workplace critical injuries and fatalities as such a Critical Injury and Fatality Response Procedures TOP (006198710) has been developed to guide response to a Critical Injury or Fatality of an employee or a contractor who is actively engaged in work activities at a TC Energy site. Due to privacy issues, TC Energy takes extreme precautions not to access the next-of-kin files unless an emergency event involving the health and safety of our employees has been confirmed. The following events require the Emergency Management Program to access next of kin information. These events are limited to: • Employee fatality • Lost employee Life threateni ng, disabling injury– as a result of an emergency
Critical Incident Stress Management
The purpose of the Critical Incident Stress Management (CISM) or individual counseling is to accelerate recovery of people who are having normal reactions to abnormal events.

The goals of CISM are to:

- Provide education on stress and stress management,
- Provide a mechanism for venting feelings,
- Normalize feelings resulting from the incident, and
- Make referrals for those requesting or requiring additional assistance.

There is an optimal time for conducting CISM interventions. Depending on the circumstances, it may be as soon as the same day, but should be no more than 24 to 48 hours after the event. Interventions may include individual or peer-counseling or CISM using the services of a mental health professional. Symptoms of post-trauma reactions can vary from intrusive thoughts and dreams to sleep disturbances, anxiety attacks, and depression.

During an emergency it is important that the Area Manager, Incident Commander, or Rominger notifies Health Services as early as possible, especially if responders are exhibiting signs of stress. If the CEOC has been activated to support the emergency, then the Health Services representative in the CEOC will make contact with a TC Energy Health Service Provider to provide CISM if required. Health Services may also recommend support be coordinated through the Employee Family Assistance Program.

The REOC Manager or IC and Health Services will collectively determine what level of intervention is required, identify potential participants, and arrange for CISM sessions. At a minimum, a professional stress counselor will be present for all debriefings where the emergency involves an employee fatality. Participation in counseling or critical incident stress management is voluntary; however, it is strongly advised all employees exposed to the emergency event participate in critical incident stress counseling.

If CISM is provided, Health Services will support the Region or Facility by completing the following tasks:

- Facilitate CISM by ensuring appropriate, skilled mental health support is available.
- Participate in CISM where appropriate;
- Provide evaluation and referral for individual counseling;
- Provide follow-up for individuals affected by the emergency; and
- Remain in contact with the Region or Facility throughout the CISM process to identify any on-going need for their involvement.