



**Steel Reef
Infrastructure Corp.**

**Emergency
Management Program**

24 Hour Emergency #: 1-866-441-6203



PROGRAM ADMINISTRATOR

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REVISION HISTORY

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DISTRIBUTION LIST

Type	Branch	Title / Agency	Name
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1 Digital Corporate Manuals



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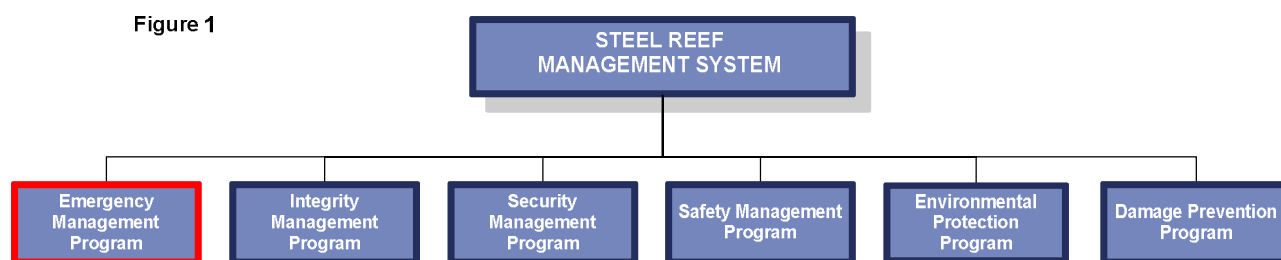
1 INTRODUCTION

1.1 Purpose

Steel Reef Infrastructure Corp. is committed to ensuring the safety of the public, their workers, and the environment. Steel Reef has developed, implemented and continuously maintains this Emergency Management Program (EMP) to effectively anticipate, prevent, manage and mitigate conditions during an emergency that could adversely affect property, the environment or the safety of workers or the public. The EMP supports internal policies, reflects Steel Reef's company values and complies with relevant government regulatory requirements. The EMP is integrated with Steel Reef's Operating Management System, programs and processes which are designed to prevent and mitigate releases.

1.2 Scope

This document identifies the roles and responsibilities of those required to implement and maintain the EMP and refers to the other Steel Reef programs and site-specific plans that support it. Integration with other Steel Reef programs is key to successfully identifying and managing hazards, responding to incidents and emergencies, and effectively communicating with stakeholders. The EMP works together with other programs such as:



1.2.1 Regulations and Standards

This EMP and Steel Reef's Emergency Response Plans (ERP) are designed to meet the following applicable regulatory requirements:

- Canadian Energy Regulator (CER) – Onshore Pipeline Regulations SOR/99-294
- Alberta Energy Regulator (AER) – Directive 071, February 2017 (Emergency Preparedness and Response Requirements for the Petroleum Industry)
- Canadian Standards Association (CSA):
 - CSA Z246.2-18 (Emergency Preparedness and Response for Petroleum and Natural Gas Industry Systems)
 - CSA Z1600-17 (Emergency and Continuity Management Program)
- Environment Canada and Climate Change (ECCC) Environmental Emergency Regulations (SOR/2019-51)
- Canadian Environmental Protection Act 1999 (CEPA 1999)
- Federal Energy Regulatory Commission (FERC) – Title 18 Chapter 1 of the Code of Federal Regulations (CFR)
- Environmental Protection Agency – 40 CFR 112
- Occupational Safety and Health Administration (OSHA) – 29 CFR 1910.38(b)
- North Dakota Industrial Commission – Rule Book (43-05-01-13)



1.3 Goals and Objectives

The Steel Reef Emergency Management Program has been developed to meet the following overarching corporate goals and objectives:

- Meet or exceed all regulatory requirements
- Build the trust of stakeholders
- Prevent as many incidents as possible from occurring
- Prevent any incidents that do occur from turning into larger incidents
- Ensure Steel Reef personnel are trained and prepared to respond to emergencies
- Develop a partnership with local first response agencies and local authorities to ensure a unified and coordinated response to any incidents
- Following an incident, restore the affected area back to pre-incident conditions
- Continuous learning and improvement of the Emergency Management Program

1.4 Program Coordination and Responsibilities

1.4.1 Canada Energy Regulator (CER) Accountable Officer

Steel Reef has appointed an Accountable Officer who has the appropriate authority to commit financial and human resources to ensure Steel Reef meets its obligations for safety, security and protection of the environment. The Accountable Officer has signed a statement accepting the responsibilities of this position. Steel Reef will notify the CER of any changes made in the position of the Accountable Officer within 30 days.

1.4.2 Program Coordinator

Steel Reef has appointed a Program Coordinator who is responsible for implementing and maintaining the EMP.

TABLE OF EMP and ERP RESPONSIBILITIES					
TYPE	ACCOUNTABLE OFFICER	PROGRAM COORDINATOR	PRODUCTION ENGINEER	FIELD LEADERSHIP	THIRD PARTY PROVIDER
EMP DEVELOPMENT and MAINTENANCE	A	R	N/A	I	R
HAZARD and RISK ANALYSIS	I	A	C	C	R
EMERGENCY RESPONSE PLAN DEVELOPMENT and MAINTENANCE	I	A	N/A	C	R
NEW PLAN APPROVAL	I	A	N/A	R	N/A
REGULAR PLAN REVIEW	I	A	C	R	C
PLAN DISTRIBUTION	I	A	N/A	C	R
AUDIT PROTOCOLS	I	A/R	N/A	C	R
EMP AUDITS	I	A/R	N/A	I	R
ERP AUDITS	I	A	N/A	R	R
TRAINING and EXERCISE PROGRAM	I	A	N/A	C	R
TRAINING and EXERCISES	I	A	N/A	C	R
IMPLEMENT IMPROVEMENTS / LEARNINGS	I	A	N/A	C	R

A = Accountable: Accountable to ensure it is completed

R = Responsible: Responsible for completing

I = Informed: Informed of the results

C = Consulted: Provides input



1.5 Documentation and Document Control

The following documents support Steel Reef's EMP:

1. Steel Reef ERP Organizational Chart – maintained by Third Party Provider
2. Steel Reef ERP Timelines – maintained by Third Party Provider
3. Steel Reef three Year ERP Plan – maintained by Third Party Provider
4. Steel Reef five Year Exercise and Training Schedule – maintained by Third Party Provider
5. Steel Reef Training and Exercise Program – maintained by Third Party Provider
6. Steel Reef Emergency Response Plans (ERPs) – maintained by Third Party Provider

The first five documents are maintained by the Third Party Provider and are updated, at least, quarterly to ensure they are current. If updates are required, the documents are redistributed to Steel Reef.

Steel Reef ERPs are reviewed on an annual basis by the Operations Superintendent to ensure that the information remains accurate. Revisions to the ERPs could also be identified during training exercises or incidents or they could be submitted by Steel Reef staff using the Revision Request Form located within the ERPs. Updates to the ERPs could be triggered by some or all of the following:

- Changes to current emergency information
- New mapping information
- New resident information
- Changes to response staff information or response capabilities
- Facility additions such as well or pipeline tie-ins

Minor updates may be documented and rolled into the next ERP update. Significant updates may be distributed via an update package to all plan recipients or new ERPs may be deployed depending on the extent of the updates. These remaining documents are reviewed and updated at least annually:

1. Steel Reef Security Management Program – maintained by Steel Reef
2. Steel Reef Safety Management Program – maintained by Steel Reef
3. Steel Reef Integrity Management Program – maintained by Steel Reef
4. Steel Reef Environmental Protection Program – maintained by Steel Reef
5. Steel Reef Damage Prevention Program – maintained by Steel Reef
6. Internal Steel Reef policies, processes and procedures – maintained by Steel Reef

Steel Reef's internal policies, processes and procedures are reviewed for updates at least annually and updates are completed and distributed amongst Steel Reef staff as required.

1.6 Records Management

1.6.1 Preparation

Training and exercise records are kept and may include some or all of the following: date of the exercise, attendance list, scenario, worksheets, controller packages, positive observations, opportunities for improvement, action items and other associated documentation.

1.6.2 Emergency Response Equipment

Steel Reef regularly inspects all emergency communications systems and response equipment (i.e. fire response equipment, respiratory protective equipment, roadblock kits) and warning systems (i.e. gas detectors for H₂S (Hydrogen Sulfide) and LEL (Lower Explosive Limit) to ensure they are maintained in an effective operational condition. Steel Reef keeps records of all inspections.

1.6.3 Response

Steel Reef utilizes their Emergency Response Plans to document incident details and response actions taken to respond. Following the incident, the final report can be exported or printed for review during the debrief.



1.6.4 Debrief

Details of any debrief meetings are documented and included as part of the incident report.

1.6.5 EMP and ERP Improvements

The Steel Reef EMP and all the Steel Reef ERPs contain a revision history that documents all of the updates / revisions / improvements made.

1.7 Program Evaluation and Continual Improvement

1.7.1 Program Review

Steel Reef will complete an annual review of the EMP to ensure its suitability, adequacy and effectiveness.

The review confirms whether:

- The EMP is fully implemented
- The EMP meets Steel Reef's policy and objectives
- The EMP is adequate for its intended purpose
- Where improvements are required

The review addresses the following:

- Suitability of the current policy, goals, and objectives
- Setting objectives in the forthcoming period
- Adequacy of the hazard identification and consequence-analysis processes
- Adequacy of resources (e.g., financial, personnel, material, mutual aid)
- Effectiveness of the EMP evaluation process
- The state of preparedness for emergencies (e.g., emergency response plan, training, and exercise reports)
- The output of any investigations into accidents, incidents, or emergencies
- The assessment of the effects of foreseeable changes to legislation or technology
- The emergency response arrangements and information sharing with municipal emergency service providers
- Emergency communication plans (internal and external for surrounding communities)

Data sources to review should include:

- Corrective and preventive actions carried out since the previous year
- Reports of emergencies and incidents (whether actual or staged for exercises)
- Reports from individual line managers on the effectiveness of the EMP locally
- Reports on hazard identification, risk assessment, and consequence analysis



1.7.2 External Audit

Steel Reef shall engage the Third Party Provider to complete a formal audit on the EMP every three years.

1.7.3 Addressing Deficiencies

All deficiencies, gaps, and limitations identified during any EMP evaluation, audit, or management review shall be assigned to a specific person to complete with a due date and shall be corrected within the specified time frames.

1.8 Management of Change

Changes to the EMP may be required due to regulatory changes, major organizational changes, requested utilizing the Revision Request Form or may be required as a result of an EMP evaluation or audit. All changes will be approved by the Program Coordinator to ensure they make sense for the program. The Program Coordinator will consult with the Accountability Officer as required in making these decisions. Updates to the EMP will be completed by the Third Party Provider upon request from the Program Coordinator. The Program Coordinator will ensure the updated EMP is distributed to and that any major changes are communicated to Steel Reef personnel as required. The effectiveness of the changes will be required as part of the annual Program Evaluation completed by the Program Coordinator.



2 PREVENTION and MITIGATION

2.1 Hazard Identification and Consequence Analysis

Steel Reef conducts risk and hazard assessments for all its business operations to identify foreseeable risks and hazards to people, property and the environment. Risk and hazard assessments are reviewed regularly to consider changing circumstances and are used in all stages of the asset's life cycle to make decisions that influence design, construction, operation and decommissioning. This process encompasses hazard and risk recognition, analysis, assessment, remedy, examination and review, and communication and consultation. Steel Reef's risk management methodology reduces the likelihood of emergencies and their potential impacts.

The steps generally include:

1. Recognizing potential hazards
2. Implementing preventive measures (smart pigs, cathodic protection, participation in local "one-call" organizations, ground disturbance, facility integrity programs)
3. Incorporating detection abilities (SCADA, fire eye, etc.)
4. Applying mitigation (ESDs, control room procedures, and plant control systems)
5. Calculating Emergency Planning Zones (EPZs) and Hazard Zones (see below)
6. Identifying the potential impact on the public and the environment of an incident in that location
7. Completing stakeholder involvement within the EPZs and Hazards Zones
8. Incorporating stakeholder feedback following liaison activities
9. Arranging for equipment, resources and response procedures to protect the public, the environment and remedy the situation in the event of an incident

Based on the type of operations and the geographic location of Steel Reef's assets they pose the following risks to the public and the environment:

- Release and ignition of gas
- Release and ignition of NGL or LPG
- Release of crude oil into a waterbody or environmentally sensitive areas
- Release of sour gas in a populated area

The following pose risks to Steel Reef's pipelines, facilities and containers. Preventative measures are identified below each risk.

- Weather such as heavy rainfall, flooding and land movement
 - Monitor weather conditions to ensure prompt response
- Corrosion, construction defects and cracking
 - Inspection protocols
 - Preventative maintenance program
 - Asset integrity management
 - Smart PIGS
 - Quality management program
 - Cathodic Protection
 - NDT (Non-Destructive Testing)
 - Ultrasonic Testing



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- Internal Testing
 - External Testing
 - Proper Insulating
 - Vessel Coating
 - Vessel Inspections
 - PSV Serviced Regularly
 - ESD (Emergency Shut Down) Testing
 - Damage caused by construction or excavation often not related to pipeline activity
 - Public education program: educating those that live and work in the area
 - Ground disturbance program and training
 - Human error
 - Equipment and lines are clearly identified
 - Detailed operating procedures
 - Education and training
 - Competency checks
 - Clean work areas
 - Supervisors present
 - ABSA (Alberta Boilers Safety Association) Compliance
 - SWA (Stop Work Authority)
 - Car Seal Program
 - Deliberate acts by terrorists, countries at war, vandals, or illegal dumpers
 - Fences and barriers (concrete, pole, guards, etc.)
 - Tank farms
 - Retention basin (good size, watertight, capacity, etc.)
 - Restricted areas`
 - Security systems
 - Security cameras
 - Personnel on-site 24 hours / day
 - Signage
 - Use of piles
 - Bullets installed away from high traffic areas

2.2 Emergency Planning Zones (EPZ)

2.2.1 Saskatchewan

EPZ Calculations are completed for any sour well, pipeline or facility. The EPZs are calculated using the ERCBH₂S modelling system.

2.2.2 Facility EPZs

The EPZ of a facility is the largest EPZ of any pipelines entering or leaving the facility. If the facility has a sour well on site or an Environment Canada and Climate Change (ECCC) regulated tank / bullet, the EPZ for that asset may determine the size of the EPZ for the sour production facility.

2.2.3 Environment Canada and Climate Change (ECCC) Facilities

Steel Reef utilizes the RMP Comp modelling system to calculate hazard zones for the regulated tanks / bullets at each facility.



3 PREPAREDNESS

3.1 Emergency Response Plan (ERP)

Steel Reef has developed the following ERPs:

- Corporate ERP (AER / ECCC / MER)
- North Dakota ERP (CER / FERT)

Refer to Steel Reef's ERP Organizational Chart and ERP Overview Map for more information.

3.1.1 Equipment

Steel Reef maintains adequate emergency response equipment. Information on site specific safety equipment and its location is available within the ERPs. If additional equipment is required it can be obtained from local supply and service companies listed within the site specific ERPs.

3.1.2 Hazard Monitoring

Steel Reef maintains adequate monitoring equipment. Information on site specific monitoring equipment and its location is available within the ERPs. Early in an incident Steel Reef would contact mobile air monitoring companies to come to the site that can take readings in parts per billion. Steel Reef would also stay tuned into local weather and news to remain abreast of any other potential hazards (wildfire, flooding and other natural disasters).

3.1.3 Mutual Aid

Steel Reef assesses the need for mutual aid on a case by case basis and, where considered necessary, ensures that agreements are established. Any information regarding mutual aid agreements can be found within the Steel Reef ERPs.

3.2 Stakeholders within an EPZ

3.2.1 Consultation with Surface Developments

Steel Reef consults with surface developments (residences, businesses, public facilities, etc.) located within its EPZs or located on a road where they would have to egress through its EPZs. During the face to face consultation, which is conducted every two years, a Public Awareness Pamphlet is provided to each surface development, emergency contact information is gathered and the roads in the area are ground truthed to identify any new surface developments.

3.2.2 Landowners / Excavators / Contractors

Steel Reef has developed a Pipeline Safety Awareness pamphlet for its CER regulated pipeline and provides it to any landowners / excavators / contractors. The pamphlet includes information on identifying pipeline markers, contacting Call Before You Dig, contacting Steel Reef, identifying a leak and what to do if contact is accidentally made with a pipeline.



3.3 External Agencies

3.3.1 Canadian Energy Regulator (CER)

The CER requires the establishment and maintenance of liaison with the agencies that may be involved in an emergency response on the pipeline and consult with them in developing and updating the ERPs. Steel Reef completes government consultation as outlined above and consults with the RCMP, local fire department and local ambulance. Steel Reef provides a copy of their ERPs in electronic or hard copy format to the required government agencies.

The CER requires a continuing education program for the police, fire departments, medical facilities, other appropriate organizations and agencies and the public residing adjacent to the pipeline to inform them of the location of the pipeline, potential emergency situations involving the pipeline and the safety procedures to be followed in the case of an emergency. Steel Reef consults with the government agencies and first responders as indicated above and provides them with an informational pamphlet that contains information on the location of the assets, potential emergency situations and safety procedures to be followed.

3.3.2 Environment Canada and Climate Change (ECCC)

Environment Canada and Climate Change (ECCC) requires Steel Reef to include local, provincial and federal response authorities in the development and preparation of plans and share the content of the plan with these organizations. For its ECCC regulated facilities, Steel Reef provides an informational pamphlet to the local authorities, the fire department and the RCMP during the development or update of the Environmental Emergency (E2) Plan. Steel Reef also provides them with a copy of the completed Environmental Emergency (E2) Plan that contains emergency response information and information regarding the regulated substance / tank.

3.4 Training and Exercises

3.4.1 Training Program

Steel Reef has identified the positions within its organizational structure that are likely to fill specific emergency response roles in the event of an incident and each emergency response role has training that is required of it. Steel Reef personnel are trained through tabletop exercises, full mobilization exercises, ICS100 – 200 level training and ICS role specific training.

3.4.2 Training and Exercise Schedule

Steel Reef maintains a training schedule that spans the next five years and identifies the regulatory required exercises as well as the competency based on training that is required to ensure that Steel Reef staff are qualified to fill their emergency response roles.

3.4.3 Environment Canada and Climate Change (ECCC)

Requires an annual tabletop exercise to be conducted for each hazard category identified at each registered facility. Additionally, ECCC requires each licensee to complete a full scale exercise every five years for each hazard category identified at each registered facility. The exercise must involve the registered tank / substance. Steel Reef invites local response authorities to observe at the exercises where feasible.

3.4.4 Canada Energy Regulator (CER)

Emergency response exercises should:

- Be held with sufficient frequency. At least one simulated exercise annually (e.g., tabletop, functional) and a full scale exercise (involving all agencies identified in the company's liaison) should be held at least every three years;
- Be varied to confirm that all aspects of potential emergencies are tested; and
- Simulate a wide range of potential geographic and weather conditions as well as worse-case spill or gas release scenarios.



4 RESPONSE

4.1 Incident Management System

Incident Command System (ICS)

Steel Reef utilizes the Incident Command System (ICS) for its field responders. ICS is a standardized approach to the command, control, and coordination of emergency response providing a common hierarchy within which responders from multiple agencies can be effective.

Emergency Support Team (EST)

Steel Reef utilizes a customized Emergency Support Team (EST) structure for its corporate responders. The field responders focus on control / contain the incident, public safety, etc. whilst the corporate responders focus on supporting the field team, evaluating and managing long-term impacts and threats to the company and business continuity. The EST is structured so that corporate responders support the incident by doing their day-to-day jobs that they already knowledgeable about (i.e. Human Resources) as opposed to trying to learn / fit into ICS roles to immediately provide value to a response. Unlike the field responders which follow the ICS structure, the EST is customized to align with the functional units already existing within Steel Reef's organization. The EST plan intentionally does not duplicate the ICS roles for corporate responders to reduce confusion between the field and corporate response (i.e. having two logistics positions, two operations positions, etc.). Although the ICS position names are not utilized, the EST plan still adheres strongly to the Principles of ICS (Chain of Command, Unity of Command, Span of Control, etc.) to ensure a functional response.

4.2 Internal Communications

Steel Reef's ERPs contain the following communication procedures / processes:

- An internal notification flowchart that outlines who will receive communication in the event of an incident and an Initial Emergency Report form that identifies what information is to be communicated.
- Each of the role description identifies communications protocol for that specific role (i.e. what to communicate and to whom) and refers each role to specific forms to assist them with documenting and communicating information pertinent to their role.
- Meeting agendas (i.e. operations meeting, planning meeting, etc.) identifying who should attend each meeting and what information should be communicated.
- A chart that shows how communication will take place between the various Command Posts established for an incident.
- The Information Officer role who is responsible for preparing the regular status updates that will be provided to internal company personnel to keep them apprised of the situation.

Communication processes, procedures, systems and equipment are tested during training exercises.

4.3 External Communications

Steel Reef's ERPs contain the following communication procedures / processes:

- An external notification flowchart that outlines which external responders will receive communication in the event of an incident.
- An assessment matrix that classifies the incident and allows Steel Reef to consistently communicate the severity of the incident.
- A site-specific list of local external responders and their emergency contact numbers.
- The Liaison Officer role, who is responsible for notifying government agencies and is the contact for agency representatives assigned to the incident by assisting or cooperating agencies.



4.4 Media Relations

Steel Reef's ERPs contain the following communication procedures / processes:

- A media section that outlines media relations processes, media management processes, provides a generic media statement, reviews the role of the on-site media spokesperson and discusses managing the media on-site at an incident.
- The Information Officer role, who is responsible for developing and releasing information about the incident to the news media.

4.5 Communication with Community Stakeholders

Steel Reef gathers emergency contact information for surface developments (i.e. residences, businesses, public facilities, etc.) located within its EPZs or located on a road where they would have to egress through its EPZs. In the event of an incident, members of the public would be notified via one of the following methods:

- Personal phone call utilizing contact lists contained within the ERPs
- Door-to-door notification where the number of surface developments is low and where notifying personnel will not put anyone at risk
- Via rovers or roadblock personnel who would be attempting to locate transients and isolating the hazard area
- Via emergency notification from the local authority

4.6 Response Priorities

Steel Reef utilizes the following response priorities:

1. Life Safety
2. Incident Stabilization
3. Property and Environment

4.7 Command and Coordination Centre Activation

The Steel Reef ERP's contain procedures for activating and setting up its command posts as well as communication protocols between the various Steel Reef and external agency command posts.

4.8 Incident Action Plan

The Steel Reef ERPs contain forms and procedures to assist with develop an Incident Action Plan (IAP) that is specific to the emergency.

4.9 Safety

The Steel Reef site specific ERPs contain roles for:

- Site Safety who is responsible for responder safety and safety advice at all times at the scene of the emergency / incident.
- The Safety Officer who develops and recommends measures for assuring personnel safety and assesses and / or anticipates hazardous and unsafe situations.

The Steel Reef EST contains a role for:

- Health and Safety who ensures that health / safety of responders, employees and the public is the first priority at all times throughout the response.



4.10 Public Safety

Steel Reef completes a government consultation with the local authorities and health services in the areas where there are surface developments located within its EPZs. This ensures that public safety actions will be coordinated with the local authorities during an incident.

4.11 Deactivation and Debriefing of the Response

Procedures exist within the ERP on standing down the level of emergency. The level of emergency will be stood down in coordination with the applicable regulatory agency. Steel Reef will debrief in accordance with the Post Incident section of their ERP.