Emergency Management Manual

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NorthRiver Midstream Inc.

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1.0 Purpose

This document describes the NorthRiver Midstream Inc. (NRM) Emergency Management Program (EMP). The NRM EMP describes the system for responding to imminent hazards that result in incidents and emergencies that could impact the health and safety of employees, the public, the environment, or property.

The Program combines systems and procedures from across the organization enabling a timely, effective response to any emergency (AER *Directive 71*, *under ss. 5 of the BC EMR, and section 4 of CSA Z246.2-23*). The EMP provides direction and governs emergency management activities, which include:

- Establishing clear roles and responsibilities for achieving Emergency response objectives and performance targets.
- Providing an EMP that aligns with applicable industry standards and achieves safe, environmentally responsible, and reliable operations.
- Anticipating, recognizing, evaluating, and controlling emergency management specific hazards and risks through a formal hazard identification and consequence analysis process.
- Preparing NRM to respond to emergency situations.
- Evaluating and continually improving the management of the EMP.
- Measuring, monitoring, and reporting emergency management performance.
- Demonstrating and reinforcing the priority of emergency management in all business activities.

Specific terms are used to indicate whether an action is mandatory or recommended. The following words have specific meanings:

- “Shall” is used where an action is mandatory.
- “Should” is used where an action is recommended.
- “May” is used where alternatives are equally acceptable.

Some additional terms are capitalized, but do not appear on the list of defined terms, such as the job titles of NRM personnel and departments.

2.0 Scope

This Manual applies to all NRM employees and contractors engaged in *design, construction, operation, gathering, processing, storage maintenance, decommission and abandonment* activities at Company facilities, as well as visitors to worksites.

NRM takes an all-hazards approach for emergencies; defined as *abnormal events (imminent hazards) that exceed the normal operating capacity of the facility, pipeline, department, or the organization*. The EMP establishes the framework for preparing for, responding to, mitigating, and recovering from imminent hazards, abnormal events, and natural hazards regardless of the nature or severity.

NRM follows the principles of the British Columbia Energy Regulator (BCER) *Emergency Management Program* framework, the Alberta Energy Regulator (AER) *Directive 071,* the Canadian Energy Regulator (CER) *Onshore Pipeline Regulations* and the *CSA Z246.2-23 Emergency Preparedness and Response for Petroleum and Natural Gas Industry System* which are provided to ensure a coordinated and organized approach to emergencies and disasters.

3.0 Expectations

Company Management recognizes that an effective safety culture cannot be achieved through this Manual alone. All employees, contractors, and visitors are responsible for maintaining a safe and healthy work environment and must be familiar with the Manual as it relates to their duties. The EMP oversees the development and issuance of response procedures and plans. This Manual is issued electronically and is subject to ongoing revision; facility Supervisors are responsible for communicating updates. Employees are expected to actively support the implementation and continuous improvement of this Manual, including ensuring contractors and visitors comply with its requirements.

4.0 Emergency Management Program

4.1 General

NRM has developed this EMP to ensure protection of people, the environment and property in the event of an emergency condition.

4.2 Management System

NorthRiver Midstream Inc. Management System (MS) provides coordination between the company's management systems and protection programs. This ensures that all imminent hazards that are identified are considered in the Emergency Management protection program.

For operations in Alberta, NRM senior management must sign and submit the AER's "Emergency Management Program Declaration Form" with the corporate Emergency Response Plan (ERP) and resubmit it every 12 months thereafter.

For assets regulated by the CER, NRM senior management must submit annually the copies of the EMP as well as any applicable Emergency Procedures Manuals and post the documents to NRM's external facing website.

For operations in BC and Alberta, NRM must assign an Emergency Program Coordinator, who acts as a liaison with the regulatory agencies and is accountable for annual review and submission of emergency response plans.

4.3 Policy

HEALTH, SAFETY AND ENVIRONMENTAL POLICY
VALUES, AND PRINCIPLES

POLICY

NorthRiver Midstream Inc., ("NRM") will manage all operations and projects in a manner that protects the health and safety of employees, other persons working on behalf of the company, and the public, as well as protecting the environment. NRM will implement policies and protection programs with the goal of preventing ruptures, liquid and gas releases, fatalities, and injuries, and for the response to incidents and emergency situations while complying with applicable laws, regulations, industry and internal standards, and stakeholder expectations.

NRM commits to protecting people, environment, assets, information, and continuity of operations again malicious acts and security threats through a risk-based, performance-driven security management program aligned to CSAZ246.1 and integrated with emergency preparedness and enterprise risk management frameworks.

NRM will continually strive to continually improve personal safety, process safety, and environmental performance by proactively evaluating its operations and projects to identify known, potential and imminent hazards and risks, assess environmental impacts, and maintain the required protection programs and procedures to reduce the number and severity of personal safety, process safety events, and environmental-related impacts towards a goal of zero incidents.

VALUES

- **We** believe in looking out for one another
- **We** believe in trusted partnerships
- **We** believe in accountability
- **We** believe in a growth mindset

PRINCIPLES

NorthRiver Midstream is committed to the following safety principles:

- All injuries, incidents, and occupational illnesses can be prevented.
- All environmental impacts can be controlled.
- Leaders, Managers, and Supervisors are accountable for safety and environmental performance.
- All workers (employee or contractor) are responsible for safety and protecting the environment.
- We will continually improve our personal safety, process safety, and environmental performance.
- We comply with all occupational health, safety, and environmental regulatory requirements.

Jay Billesberger
Senior Vice President, Operations, Engineering & Safety
NorthRiver Midstream Inc.

4.4 Legal and Regulatory Requirements

This EMP document is accompanied by a set of procedures required to fulfill the legal requirements found in various jurisdictions as outlined below. Note that the three main energy regulators (BCER, AER, CER) for the jurisdictions in which NRM operates require alignment of emergency management programs with the standard CSA Z246.2:23 *Emergency preparedness and response for petroleum and natural gas industry systems*.

4.4.1 British Columbia Energy Regulator (BCER)

The *Energy Resources Activities Act* (s. 38 (1) (b)) requires that permit holders prepare and maintain an emergency response program and emergency response plans (ERPs) as prescribed in the *Emergency Management Regulation* (EMR). The objective of the EMR is to protect people, the environment and the property by establishing a framework for emergency preparedness, planning and response capabilities.

4.4.2 Alberta Energy Regulator (AER)

The AER *Directive 71 – Emergency Preparedness and Response* requires that an approval holder develop and maintain an EMP to protect the public and the environment.

4.4.3 Canadian Energy Regulator (CER)

The CER regulates the construction and operation of oil and gas pipelines that cross provincial and international boundaries through the *Onshore Pipeline Regulations*. OPR S 32 (1) requires that companies regulated by the CER have an EMP that anticipates, prevents, manages and mitigates conditions during an emergency that could adversely affect property, the environment, or the safety of workers or the public.

4.4.4 Environment and Climate Change Canada (ECCC)

Environment Canada (EC) regulates business operations that may have an environmental impact, including propane and LNG storage facilities, in accordance with the *Canadian Environmental Protection Act* and the *Environmental Emergency Regulation*. Preparation of an Environmental Emergency Plan is a requirement of the Environmental Emergency Regulation, with annual testing of the Plan.

4.4.5 Transport Canada (TC)

Under the *Transportation of Dangerous Goods Act* and *Regulations*, companies are required to have Emergency Response Assistance Plans (ERAP) relating to the transportation of dangerous goods. The ERAP is submitted to TC for approval in accordance with Part 7 of the *Transportation of Dangerous Goods Regulation* and are included in NRMs regular drills and exercises.

4.4.6 BC Utilities Commission (BCUC)

The BC Utilities Commission directed adoption of *the Mandatory Reliability Standards Regulation* (MRS) to ensure British Columbia's electric transmission system remains capable of meeting customer needs and that of a much larger interconnected grid. As McMahon's Co-Generation facility directly contributes to the electrical grid, alignment with these regulations requires annual review and update of the emergency management plan.

4.4.7 BC Ministry of Health

The Ministry of Health (MOH), under the Drinking Water Protection Regulation, requires all small water system operators to have an emergency response plan in case of an emergency that might pose a health threat. Drinking water emergency response and contingency plans are maintained through the NRM Drinking Water Program and outside of the EMP.

4.5 Goals and Objectives

The fundamental goal and objectives of the NRM EMP are to:

- Protect people, property, and the environment by establishing a framework for emergency preparedness, planning, and response capabilities.
- Prepare and maintain an EMP.
- Protect the public and minimize impacts to the environment through the implementation of the EMP.
- Prepare and maintain emergency response plans (ERPs)
- Complete required emergency response training, exercises, and drills.

NRM EMP has a process for setting objectives and specific targets that are required to achieve the goals of the EMP on an annual basis. Further details relating to the process of annual goals, objectives, and targets are described in the organizational structure table.

4.6 Emergency Management Program Roles & Responsibilities

Who	Responsibility
NRM Senior Leadership Team	Approve annual goals, objectives and targets of the EM Program to ensure EM program fulfills the function of protecting public, employees, and the environment. Provide resources for implementation of the EM program.

Director, HSSE	Propose annual goals, objectives and targets of the EM program. Implement and maintain the data management system to monitor and analyze trends in hazards, incidents and near misses. Prepare annual reports to validate completion of EM program functions. Make recommendations for improvement of the EM program. Participate in the tri-annual review and update of the EM program.
Emergency Management Program Coordinator	Ensure the Emergency Response Plans are developed, reviewed, revised, updated, and maintained on an annual basis. Conduct emergency drills, tabletop exercises, functional and full-scale exercise. Liaise with first response agencies. Liaise with regulatory agencies relating to emergency management. Provide training and ensure competency for cross functional response teams. Participate in tri-annual EM program review. Identify and communicate opportunities for continual improvement of the EM program. Annually, ensure the EMP documentation is submitted to the required authorities, along with the required forms/ confirmations.
Regulatory Specialist	Support annual review of EM program objectives and coordinate tri-annual program review. Ensure external federal filings of EMP documentation are completed.
Area Supervisors	Participate in real and simulated emergency response events as required. Fulfill the role of Incident Command Staff as required. Report emergency incidents as per the internal and external incident reporting procedures. Approve annual ERP updates. Review field specific emergency response plans with employees.

	Ensure employees are provided with adequate training to validate competency in emergency response situations. Identify and communicate opportunities for continual improvement of the EM program.
All employees and workers	Participate in real and simulated emergency response events. Review the applicable field specific emergency response plans annually. Report emergency incidents as per the Incident Reporting Procedure. Identify and communicate opportunities for continual improvement of the EM program.
Regulator having jurisdiction	Review emergency response planning submissions from NRM and provide feedback if/when necessary. Audit or participate in NRM emergency response exercises or emergency response events.

4.7 Documentation and Document Control

The ERP's shall be reviewed on an annual basis at a minimum and updated to reflect any required changes, including external stakeholder information as required. These annual updates shall be submitted to applicable regulatory agencies as required. Revisions to corporate and field specific ERPs shall be summarized in the ERP Management of Change record.

On a tri-annual basis at a minimum, NRM shall review the EMP manual to ensure alignment with required regulations and industry practices relating to emergency management. Senior management shall review and approve the revisions prior to implementation. Revisions to the EMP shall be summarized in the revision record for the Manual.

4.8 Records Management

Records relating to the EMP shall be stored in compliance with the NRM Record Retention Policy. Records relating to the EMP could include:

- Training records for emergency response drills, tabletop or full-scale exercises.
- Reports of emergency response exercises facilitated by NRM or third-party agencies.
- Emergency response plans.
- Emergency event forms and reports.
- Changes or improvements to the EMP.
- Third party or regulator audits of EM program.

Confidential stakeholder/rights holder information that is no longer required for emergency response purposes shall be managed and disposed of in accordance with confidential record disposal requirements.

4.9 Competence and Training

NorthRiver's Training Matrix identifies training required for those that may fill Emergency Response Roles to ensure that personnel have the appropriate knowledge and skills to comply with regulations and respond to emergencies as per NorthRiver's ERPs. This includes levels of ICS training, participation in emergency response exercises, role specific training, and media training.

4.9.1 Training Program

Emergency response training is provided to NRM employees who may be involved in responding to an incident. Training is provided in various forms such as, formal training, table-top exercises, plan reviews, and workshops.

External agencies, stakeholders and subject matter experts are invited to participate in training when applicable to ensure a comprehensive and cohesive response effort. Training requirements are determined by operational and regulatory requirements.

NRM HSSE personnel collaborate with the NRM Training department in the development of training materials. NRM HSSE Team regularly attend workshops, courses, and conferences for professional development to review industry best practices with a view to continually develop, enhance and improve the Program.

The EMP Coordinator will review the Training requirements relating to Emergency Management on a tri-annual frequency (at a minimum) to ensure the program needs are being met. In the event of a regulatory change, additional training may be developed and provided to employees to ensure alignment with the updated regulations.

4.9.1.1 Incident Command System (ICS) Training

NRM utilizes the internationally recognized Incident Command System (ICS) for management of incidents. NRM will provide ICS training to employees who may be required to respond to an emergency condition and fill a role within the ICS structure. The level of ICS training required for employees is dependent upon the role that will be filled, as per the below table.

Role	Recommended Level of ICS Training
All response personnel	ICS 100
Incident Command Post (ICP) Personnel	ICS 200
Emergency Operations Centre (EOC) Personnel	ICS 200
Emergency Management Program Coordinator	ICS 300

NRM has adopted the Canadian ICS model as the organizational structure for responding to all emergencies. The ICS structure will ensure that NRM is:

- Complying with applicable regulations and legislation.
- Aligning with industry standards and best practices.
- Following the processes for identifying potential emergency situations and planning for mitigation and control.
- Minimizing consequences of emergency events by ensuring prompt and effective actions.
- Providing appropriate training to ensure employees understand their roles and responsibilities under the Emergency Response Plans.
- Conducting operational and discussion-based exercises to test the readiness of the organization.
- Supporting response efforts by providing on-call support and emergency management leadership.
- Providing stakeholders with relevant information regarding emergency management activities.
- Reviewing emergency management procedures and evaluating emergency responses to ensure continual improvement.

4.9.1.2 ICS Roles and Responsibilities

The different types of ICS roles and responsibilities that employees may be required to undertake in a real or simulated emergency event are outlined in the NRM Core Emergency Response Plan. This plan is reviewed and updated annually as required.

4.10 Emergency Response Exercises

The emergency response exercise program is designed to validate emergency response plans, test procedures, roles, and communication protocols, and ensure personnel are competent and prepared to respond effectively to emergency events. Exercises are conducted using a progressive, risk-based approach and may include discussion-based, operations-based, functional, and full-scale exercises. Through regular planning, execution, evaluation, and corrective action, the exercise program supports continual improvement of emergency preparedness, confirms regulatory compliance, and enhances the organization's ability to protect people, the environment, property, and public safety.

Typical aims of the exercises can be but are not limited to:

- To develop the necessary skills for individuals and organizational units to effectively respond to and manage emergency situations.
- To familiarize individuals and organizations with their roles under the relevant ERPs.

- To validate existing plans and identify areas of opportunity.
- To build employees' confidence with respect to making decisions in an emergency.
- To practice and enhance interagency cooperation and communication.

4.10.1 Emergency Response Exercise Types

Emergency response exercises are conducted at varying levels of complexity to progressively develop, test, and validate NorthRiver Midstream Inc.'s emergency preparedness and response capabilities. Exercise types are selected based on risk, regulatory requirements, operational complexity, and desired learning objectives.

- Drills are focused, operations-based exercises designed to test specific tasks, procedures, or equipment under controlled conditions. Drills typically involve a limited number of personnel and are used to validate individual or team proficiency in activities such as notifications, equipment deployment, evacuation procedures, or emergency shutdowns. Drills provide an efficient method to reinforce training, identify procedural gaps, and ensure readiness for specific emergency response actions.
- Tabletop exercises are discussion-based exercises conducted in a facilitated setting using a realistic emergency scenario. Participants review and discuss their roles, responsibilities, decision-making processes, and coordination requirements without deploying personnel or equipment in the field. Tabletop exercises are used to assess emergency response plans, communication protocols, and leadership decision-making, and to identify opportunities for improvement in preparedness and coordination.
- Functional exercises are operations-based exercises that test emergency management functions, command and control structures, and coordination within an Incident Command Post (ICP) or Emergency Operations Centre (EOC). These exercises simulate realistic emergency conditions and require participants to perform their assigned roles, manage information flow, and make real-time decisions, while field-level tactical operations are generally simulated. Functional exercises bridge the gap between tabletop and full-scale exercises by testing response systems under time-pressured conditions.
- Full-scale exercises represent the highest level of emergency response exercise realism and complexity. These exercises involve the actual deployment of personnel, equipment, and resources to simulate emergency conditions as realistically as practicable. Full-scale exercises may include participation from external emergency response agencies, regulators, contractors, and other stakeholders. The primary purpose of a full-scale exercise is to validate the overall effectiveness of emergency response plans, multi-agency coordination, communication processes, and operational readiness.

The frequency of different types of emergency response exercises is dependent on the regulatory jurisdiction of the asset; NRM follows the guidance provided in the CSA Z246.2 standard for frequency of exercise.

- Drills are carried out annually.

4.10.1 Tabletop or Functional exercises are carried out annually at a minimum, except on the years in which there is a full-scale exercise.

- Full scale exercises are carried out every three years.

4.10.2 Assets with an E2 plan must conduct a tabletop exercise for that plan annually, with a full-scale exercise on that plan every 5 years.

Exercises are designed to test a variety of emergency response capabilities across the organization, including the following aspects:

- Scenarios that require an integrated response from different teams within the organization (e.g. site level responses, Incident Command Post, and EOC supports).
- Scenarios that represent the types of hazards and events that have the potential to occur and/or escalate at the different assets, including scenarios that could occur under a variety of circumstances and weather conditions.
- Scenarios that involve outside resources (e.g. contract operations personnel, mutual aid partners, regional municipal responders, and regulators).
- Scenarios that involve testing communication equipment, methodologies, and processes.

5.0 Program Evaluation and Continuous Improvement

NRM evaluates and continuously improves its EMP. Program performance is assessed through the review of exercises, incidents, audits, regulatory feedback, and management reviews, with findings used to identify opportunities for improvement and implement corrective actions. This continual improvement process supports strong emergency preparedness and response capability across the organization.

5.1 Emergency Management Goals, Objectives, and Targets

Annually, NRM sets performance goals, objectives, and targets (GOTs) for the EMP. These goals are approved by senior leadership to align with continuous improvement of NRM's management system programs. These GOTs are reviewed at the end of the year, and annual performance is measured against them.

5.2 Emergency Management Program Review

Annually, the Emergency Management Manual is reviewed by the EMP Coordinator to confirm alignment with applicable regulatory requirements and ensure information remains current. Every

three years, a comprehensive review of the EMP is completed to assess overall effectiveness, confirm alignment with the Management System, and identify opportunities for continual improvement**.**

Program review information may be gathered from a variety of sources, including:

- Performance against Program goals, objectives, and targets.
- Emergency response exercise performance, including audit reports from regulator observations.
- Post-emergency reports.

5.2.1 Hazard identification and consequence analysis results (e.g. HazOp studies).

- Best practice guidelines from industry associations relating to emergency management.

5.3 Emergency Management Program Audit

NRM's Management System framework includes a process for completing audits of the Management System programs. Refer to the Management System Audits and Assessments Process (NRM-REG-PRS-0004) for details relating to the audit process.

5.4 Corrective Actions

NRM has a Corrective and Preventative Action (CAPA) process to ensure corrective actions that relate to the EMP are taken to systematically resolve non-conformances and continuously improve the EMP. See the Management System Corrective and Preventative Action (CAPA) Process (NRM-REG-PRS-0002) for details relating to the CAPA process.

6.0 Management of Change

NorthRiver Midstream Inc. applies a Management of Change (MOC) process to ensure that changes to operations, organizational structure, facilities, equipment, personnel, or external conditions are systematically assessed and managed to prevent adverse impacts on emergency preparedness and response. process ensures that potential risks introduced by changes are identified, evaluated, and mitigated, and that affected emergency response plans, procedures, training, and competencies are reviewed and updated as necessary. This process supports the continued effectiveness, reliability, and regulatory compliance of the EMP. Examples of changes that may have an impact on emergency management include:

- Installation or decommissioning of an asset.
- Changes in an asset that increase or decrease a facility's emergency planning zone, such as:
    - Changes in licensed conditions (e.g. H_2S increase).
    - Addition or removal of tanks or vessels of CEPA regulated substances.

    - Changes in valve configurations.
- Identification of risks to new stakeholders in the area around the assets.
- Organizational changes to response personnel.
- Regulatory or jurisdictional changes.

Refer to the NRM Asset Management of Change Program (NRM-PSM-PRG-0001) for further information on the MOC process for asset changes.

7.0 Hazard and Risk Management

NRM takes an all-hazards approach for emergencies. An emergency can be defined as an event or imminent event outside the scope of normal operations that requires prompt coordination of resources to protect people, the environment, and property. The EMP establishes the framework for preparing for, responding to, and recovering from non-routine incidents, regardless of the nature or severity.

The following sections describe the hazard identification procedures used to systematically identify, control, or eliminate potential or actual hazards. Supervisors and workers can prevent hazards from causing harm when they:

1. Eliminate the hazard,
2. Reduce the hazard, including substitution or isolation,
3. Implement engineering controls to minimize exposure to the hazard,
4. Administration by way of following procedures or applying training, or
5. Wear personal protective equipment.

7.1 Hazard Identification

NRM's Emergency Response Plans apply an all-hazards approach for midstream petroleum operations. In accordance with BCER and AER requirements, NRM identifies and monitors natural, technological, and human caused hazards that may impact its operations and areas of responsibility. NRM has an Operational Risk Management Process (NRM-RM-PRS-0001) that outlines the process for operational risk management at NRM. Hazards, risks, and vulnerabilities are assessed by Operations and HSSE personnel, and documented in area specific emergency response plans.

7.2 Risk Assessment Process

After identification of the hazards associated with an asset, the assessment of the risk associated with that hazard is completed by:

1. Assessing the potential consequence of the incident in terms of potential impact to people, the environment, operational assets, and the company's reputation.
2. Determining the likelihood of occurrence is then estimated in a range from Remote to Frequent.

Once the consequence and likelihood levels are determined, they are plotted on the Hazard, Risk and Vulnerability Analysis Tool (shown below and contained within the NRM Core Emergency Response Plan) to determine the level of risk associated with that hazard.

Hazard, Risk and Vulnerability Analysis Tool

Step 1 – Assess the Impact

Level	People	Environment	Assets	Reputation
4 Critical	• Fatality • Long-term health impact • Permanent disability • Life altering injury or illness • Evacuation of a facility and community • Action from / activist involving weapons	• Severe long-term environmental damage • Wide-spread impacts to sensitive environments, wildlife and/or major bodies of water • Significant off lease/site groundwater impacts	• One-month facility/equipment outage • Production, equipment, property, motor vehicle loss and or damage greater than $10 million • Terrorist attack/attempt	• Action resulting in regulatory and/or legal prosecution or suspension of operations • Prolonged national/international media attention • Sustained widespread stakeholder public protect
3 High	• Short term health impact • Lost time injury or illness • Evacuation of facility and immediate area • Violent action from landowner/ activist	• Severe short-term environmental damage • Localized on lease groundwater impacts • Significant off lease/site surface impacts	• One-week facility/equipment outage • Production, equipment, property, motor vehicle loss and or damage greater than $1 million • Substantial loss from theft/ vandalism	• Regulatory and/or legal action resulting in fines or punitive action • Prolonged national/regional media attention • Prolonged local/regional stakeholder public protest
2 Moderate	• Medical aid injury or illness • Restricted work/modified duties • Evacuation of job site • Specific threat from landowner/ activist	• Moderate environmental damage • No groundwater impacts • Localised off lease/site surface impacts • Immediate clean-up	• Short term (less than one week) facility/equipment outage • Production, equipment, property, motor vehicle loss and or damage greater than $100,000 • Major property crime	• Regulatory and/or legal action resulting in administrative response • Brief local/regional media attention • Brief local public protest
1 Low	• First aid injury or illness • Implied threat from landowner/ activist	• Minor environmental damage • Localized on lease/site surface impacts	• Negligible production loss • Protection, equipment, property, motor vehicle loss and/or damage less than $100,000 • Minor property crime	• No regulatory action anticipated • Brief or no media attention • Brief or no public attention

Step 2 – Determine the Probability

Level	Description	Likelihood
4 Frequent	Event is expected to occur in most circumstances.	One or more occurrences per year.
3 Likely	Event will probably occur at home time based on current practices.	One occurrence every 1-5 years.
2 Unlikely	Event should occur at some time based on current practices	One occurrence ever 5-20 years
1 Remote	Event could occur at some time based on current practices	One in the life of the facility

Step 3 – Determine the Risk Level

Impact	1 – Remote	2 – Unlikely	3 – Likely	4 – Frequent
4 Critical				
3 High				
2 Moderate				
1 Low				

Probability

Impact x Probability = Risk Level

Step 4 – Risk Level

Critical – STOP activities. Work cannot proceed until risk is reduced to a lower level.

High – Extensive risk controls/mitigation measures must be implemented, and possible corporate approval is required to allow work to proceed. Efforts to reduce risk to a MEDIUM or LOW level should be undertaken.

Moderate- Risk controls/mitigation measures must be implemented to allow work to proceed. Efforts to reduce risk to a LOW level should be undertaken.

Low – Some risk controls/mitigation measures may be justified. Represents an acceptable level of risk.

Step 5 – Take Action

Ensure all Risks are understood, controlled, and communicated prior to starting work.

For each facility, a table is developed and lists the high-risk hazards that exist at the facility. This information is contained in the asset-specific Emergency Response Plan, along with control methods and response actions required. See below for an example of a hazard table for one of the NRM assets.

The chart below identifies the high-risk hazards that are present at the Tupper Main & Tupper West areas of Operations:

Risk Level	Hazards	Controls & Response Actions	CANUTEC 2024
Critical	None Identified	N/A	Section 11.3 – Appendix
High	None Identified	N/A	Section 11.3 – Appendix
Moderate	Fire: Industrial/Facility	Section 7.20.1 - Facility Fires	Section 11.3 – Appendix
	Release: Chemical (e.g. produced water, cleaning agents)	Section 7.17 – Liquids Release – Site/Facility	Section 11.3 – Appendix
	Release: Gas (Sweet)	Section 7.15 Sweet Gas (Hydrocarbon) Release	Section 11.3 – Appendix
	Release: Gas (Sour)	Section 7.14 Sour Gas Release	Section 11.3 – Appendix
	Fire: Wildland/Grass/Forest	Section 7.20 – General Fire Response	Section 11.3 – Appendix
	Release: Liquid Product	Section 7.17 – Liquids Release – Site/Facility, Section 7.13 Spill Contingency Plan	Section 11.3 – Appendix
	Excessive Runoff from Facility	Section 7.13 Spill Contingency Plan	Section 11.3 – Appendix
Low	Pipeline Rupture	Section 7.19 – Blow Out Incident	Section 11.3 – Appendix
	Pipeline Strike/Leak (3-5 mm)	Section 7.19 – Blow Out Incident	Section 11.3 – Appendix
	Medical Event (Slips, Trips, First Aid, Heart Attack, etc.)	Section 7.10 – Injury/Fatality	Section 11.3 – Appendix
	Transportation/Vehicle Incident: On Site	Section 7.24 – Transportation Incident	Section 11.3 – Appendix
	Transportation/Vehicle Incident: Off Site Involving Company/Contractor Personnel	Section 7.24 – Transportation Incident	Section 11.3 – Appendix
	Threat or Suspicious Activity	Section 7.29 – Bomb Threat	Section 11.3 – Appendix
	Disgruntled Landowner/Employee/Contractor/Vendor	Section 7.9 - Site Security	Section 11.3 – Appendix
	Intruder/Squatter	Section 7.9 - Site Security	Section 11.3 – Appendix
	Landslide	Section 7.27.6 – Seismicity	Section 11.3 – Appendix
	Seismic Event: Earthquake	Section 7.27.6 – Seismicity	Section 11.3 – Appendix
	Prolonged Power Outage	Refer to Business Continuity Plan	Section 11.3 – Appendix

The asset-specific ERP supplements contain information on response equipment and locations. See Section 9 Emergency Response Plans for further details.

8.0 Incident Management System

NRM uses the Incident Command System to ensure that all incidents and events that occur on Company property or while conducting Company business are reported and investigated. The procedures found in this section will help ensure that accurate and up-to-date incident records are documented, maintained, posted, and submitted, and that notifications are made as required.

The process for incident, near miss, or hazard reporting is outlined in the document Reporting Incidents, Hazards, and Near Misses (NRM-HS-SOP-011.2). When required, escalation of the incident to establish an Incident Command structure will be determined by the on-scene or on-call supervisor as needed. The NRM Core Emergency Response Plan outlines the incident notification and escalation procedures, including establishment of coordination activities with the authority having jurisdiction.

9.0 Emergency Response Plans

Emergency Response Plans are required to ensure NorthRiver Midstream Inc. is prepared to respond effectively to emergencies that may impact people, the environment, property, or the public. In alignment with CSA Z246.2, ERPs provide a structured and coordinated approach for managing emergency events by defining roles and responsibilities, establishing notification and communication processes, and outlining response actions to mitigate consequences. The

preparation and maintenance of ERPs support regulatory compliance, effective incident management, and the protection of workers, communities, and the environment.
Because of the number and complexity of NRM's assets, there are two main portions of the Emergency Response Plan – the Core and Supplements.

- Core Emergency Response Plan contains the corporate emergency response procedures, including but not limited to initial response actions, response staff roles and responsibilities, crisis communication plans, response procedures, post emergency and debrief procedures, forms, and jurisdictional requirements.
- Supplemental Emergency Response Plans are asset/area specific plans that contain detailed information on identified hazards, site-specific response actions, applicable local jurisdictions, and other relevant area-specific details.

9.1 Components of the Emergency Response Plans

As required by the CSA Z246.2 Standard, the NorthRiver ERPs will contain:

- A statement of purpose, scope, and objectives.
- A description of assets and operational activities covered by the ERP.
- Emergency Response Plan Distribution List.
- Emergency Response Map, with an appropriate level of detail, to allow for effective planning and response.
- Roles and responsibilities for each internal and external position in accordance with the incident management system.
- Emergency contact information for an individual, group, or organization that has a role in the management of an emergency.
- Emergency contact lists for:
    - Notifying directly impacted public; and
    - Enabling the public to contact the operator (e.g., 24-hour emergency contact phone number)
- A method for classification of incidents and response actions for specific incidents.
- Response procedures and guidelines to manage site-specific risks.
- Command and coordination (reception) centers, and other facilities as appropriate.
- Procedures for communication with response team, support services and government.
- Procedures for communication with external stakeholders, public, and media.
- Critical resources, Equipment list, and a means of activation.
- References to copies of mutual aid agreements.

- Detailed hazardous product information.
- Internal and external reporting requirements.
- Documentation processes.
- Processes and criteria for
    - Determining the incident classification, including escalation and de-escalation.
    - Activation of the ERP; and
    - Deactivation (downgrading and stand-down of emergency levels).
- Processes for the preservation of evidence; and
- Debrief procedures.

9.2 Emergency Planning Zones

As described above in Section 7, NRM conducts risk and hazard assessments for all its facilities and business operations to identify risks and hazards to people, property, and the environment arising from our business activities. Emergency Planning Zones (EPZs) are established to define the geographic area that may be affected by a potential emergency and to support effective emergency planning and response. The EPZ is determined based on the highest risk hazard associated with an asset, considering the nature of the products handled, potential release scenarios, and the consequences to people, the environment, and property. Defining the EPZ ensures that appropriate preparedness, notification, and response measures are in place to protect workers, the public, and surrounding communities.

9.2.1 EPZ Calculation

NorthRiver calculates emergency planning zones for all its wells, pipelines, & facilities based on the following methodologies:

- AER: EPZ Calculations are completed for any well, pipeline or facility with hydrogen sulphide (H2S) concentration of 0.1 moles per kilomole (mol/kmol) (0.0001 mole fraction or 100 ppm). The EPZs are calculated using the AER-designated H2S models.
- BCER: Hazard Planning Zone (HPZ) calculations are completing for any sour well, pipeline or facility using the nomograph method as per Schedule A of the *Emergency Management Regulation*.
- CER: EPZ Calculations are completed for any pipeline with hydrogen sulphide (H2S) concentration of 0.1moles per kilomole (mol/kmol) (0.0001 mole fraction or 100 ppm). The EPZs are calculated using the AER-designated H2S models.
- Sweet Gas Pipelines: Thermal Radiation EPZs are calculated utilizing the ALOHA modelling system.

- Vapour Flammability HPZs: Calculated utilizing the ALOHA modelling system for all sweet and sour wells and Thermal Radiation HPZs are calculated for all sweet and sour pipelines. The larger of the HPZs is applied as the final EPZ.
- E2 Regulated Facilities: Hazard zones for Environment Canada regulated propane / butane / NGL bullets & condensate tanks are calculated utilizing the CANUTEC or ALOHA modeling system as applicable.
- Facilities: The designated facility EPZ is the largest of the following:
    - Largest EPZ of any pipeline entering or leaving the facility.
    - Largest EPZ of any E2-regulated substance contained at the facility.
    - EPZ of any well on site at the facility.
- HVP Pipelines: EPZs for High Vapour Pressure (HVP) pipelines are determined using the Proposed EPZ Distances for Selected Pipeline Diameters provided in the table below (from the CAPP Companion Planning Guide to ERCB Directive 071, July 2008):

Pipeline Size		Ethane, Propane, and Butane Mix (no Ethylene) HPZ Distance	Ethylene HPZ Distance
3″	88.9mm	250m	250m
4″	114.3mm	300m	350m
6″	168.3mm	500m	550m
8″	219.1mm	700m	750m
10″	273.1mm	900m	1000m
12″	323.9mm	1100m	1200m
16″	403.4mm	1600m	1600m

9.2.2 EPZ Revalidation Process

NRM has a process for ensuring that the hazard planning zones/emergency planning zones are current and relevant for its assets through annual revalidation of the Emergency Response Plan. Outside of the annual update, an adjustment to the EPZ of an asset may be triggered through the asset Management of Change process, such as with the following mechanisms:

- HPZs / EPZs are calculated for all new assets.
- HPZs / EPZs are re-calculated for any changes to licensing / operating conditions.
- HPZs / EPZs are re-calculated due to any integrity issues (e.g., an ESD valve is taken out of service).

If there are changes to the HPZs / EPZs that result in an increase in the hazard zone and new members of the public are impacted, then the ERP will be updated immediately. If there are changes

to the HPZs/ EPZs that do not impact new members of the public or reduce the HPZs / EPZs then these changes will be rolled into the annual ERP update when it comes due. If there is additional public impact, the ERP must be updated prior to NorthRiver bringing on any new assets, changing licensing or changing operating conditions.

9.2.3 Hazard Monitoring Procedures

The Core ERP contains response action plans and procedures for a variety of emergency types. As a part of these response action plans, hazard monitoring procedures are established to ensure ongoing response activities are appropriate for minimizing potential impacts to responders, the public, and the environment. See the Core ERP section – Hazard Monitoring Procedures for further details.

10.0 Mutual Aid Agreements

Mutual Aid Agreements support NorthRiver Midstream Inc.'s ability to respond effectively to emergency events by providing access to additional resources, expertise, and support when required. In alignment with CSA Z246.2, these agreements establish pre-arranged expectations for cooperation, communication, and resource sharing with external organizations, including industry partners, emergency responders, municipal authorities, and other stakeholders. Mutual aid arrangements enhance response capability, support coordinated incident management, and help mitigate the consequences of emergencies. Where required, mutual aid agreements are established and reviewed annually with partners. Area or asset specific Mutual Aid agreements are stored within the area or asset specific ERP supplement.

11.0 Communication Processes

Effective communication is critical to the safe and coordinated management of emergency events. NorthRiver Midstream Inc. has established communication processes to ensure timely, accurate, and consistent information sharing among response personnel, regulators, external stakeholders, and the public during all phases of an emergency.

11.1 Emergency Communication

As outlined in the Core ERP, the first on scene of an emergency is responsible for initiating the internal incident escalation and communication process. The internal and external communication processes are detailed in the Core ERP. Testing of communication methods can occur as part of the emergency response exercise(s) or as a stand-alone activity. See the Crisis Communication Plan within the Core ERP for further details on emergency communication procedures. Included in the ERP are communication plans relating to:

- Internal incident escalation.

- External notification to regulatory agencies.
- External notification to municipalities.
- External communication to the public, including notification, shelter in place, and evacuation communication procedures.
- Media communication procedures.

11.2 Stakeholders within an EPZ

NRM is committed to an open dialogue and informed decision making through regular communication with all person and stakeholders (indigenous peoples, communities, municipalities, or other stakeholders) in the Emergency Planning Zones (EPZs). Frequent and consistent communication is an integral part of achieving a safe work environment and is an effective way of raising emergency management awareness.

NRM has a process for engaging with stakeholders within our EPZs – the roles and responsibilities of different parties relating to this process are outlined below.

Role	Responsibility
NRM Operations Leaders	• Ensure that each facility has signs that clearly display the 24-hour emergency contact number at the primary entrance. • Ensure that all calls to the 24-hour emergency number initiate immediate action. • Carry out public and local authority notification when required.
NRM Emergency Management Program Coordinator	• Consult and coordinate with indigenous peoples, communities, municipalities, or other stakeholders in the development of the emergency response plans. • Ensure that NRM provides a copy of the current emergency response plan to all entities, including indigenous peoples, communities, municipalities, or other stakeholders annually. • Develop and maintain a First Responder information presentation to provide upon request. • Provide details of the emergency response procedures in place and address questions and concerns that may arise; provide additional information or modifications to the area specific ERP when required by impacted stakeholders. • Liaise with municipalities, industry, and other organizations (e.g., police, fire departments, emergency medical services, 911 call centers, mutual aid partners, contractors, spill cooperatives, etc.) to ensure sufficient resources are available to respond effectively and efficiently to a major

	incident (e.g., a fire or a large-volume hydrocarbon release), as determined by the company's hazard assessments.) • Ensure appropriate emergency response information is posted to the external NRM website that provides details on hazards, protective measures, and opportunities for further consultation between NRM and members of the public.
NRM Lands and Right of Way Department	• NRM will consult and coordinate with the public and other entities on the development of emergency response plans and information pamphlets. • Ensure that NRM provides information pamphlets to all persons or entities located with the EPZs regarding the potential hazards of our activities. • Develop, maintain, and deliver public information pamphlets to all residents and persons living within an EPZ or if they are required to transit an EPZ to access their residence or tenure. • Maintain a list of residents and stakeholders in each EPZ whom voluntarily provided data. • Exchange information with residents and stakeholders to ensure that there is a process to contact persons or other entities in an EPZ and if necessary, evacuate them in the event of an emergency. • Ensure that consultation, cooperation, and notification is completed prior to applying for an oil and gas activity in British Columbia, Alberta or with the Federal Regulator.

Further details on the public communication program completed by NRM and its integration with emergency preparedness can be found in the Public Awareness Plan (NRM-LND-MNL-0024).

In an emergency, NRM shall utilize the collected resident information to coordinate emergency notifications with impacted members of the public through the established Incident Command structure. Communication methods could include telephone, door to door, radio, use of an automated alert system, and/or other means as applicable to the area. Emergency communication to members of the public may be coordinated through a unified command with the authority having jurisdiction, as required.

11.3 First Responders and Supporting Agencies

Effective coordination and communication with first responders and supporting agencies are essential for the safe and efficient management of emergency events. In alignment with CSA Z246.2, NorthRiver Midstream Inc. has established processes to ensure timely, accurate, and reliable

information sharing with external response organizations to support coordinated incident management, resource mobilization, and protection of people, the environment, and property. In alignment with the distribution lists as shown in each of the Core and area specific Emergency Response Plans, NRM provides the area first responders within the EPZs copies of the ERPs for review. Additionally, first responders and supporting agencies may be invited to participate in NRM's emergency response exercises or other enhanced training opportunities to ensure cohesive response during emergency events. When reliance on supporting agencies is a requirement of the area within the EPZ, a formal Mutual Aid agreement may be developed and included in the area specific ERP.

12.0 Emergency Response

The Emergency Response process outlines how NorthRiver Midstream Inc. manages and responds to emergency events to protect people, the environment, and property. In alignment with CSA Z246.1, emergency response activities are conducted in a structured and coordinated manner to ensure timely notification, effective command and control, and appropriate deployment of resources to safely mitigate the impacts of an emergency. The NRM Core Emergency Response Plan details the procedures for activities that are undertaken in emergency situations, as well as the response protocols, including:

- Prioritization of response activities (e.g. protection of people, protection of the environment, protection of NRM assets, protection of NRM reputation).
- Assessment of the level of emergency and ongoing hazards during response activities.
- Activation of command centres.
- Development of action plans.
- Coordination of response actions with jurisdictions having authority for public and responder safety.
- Mobilization of response personnel.
- Notification and reporting requirements, including internal, external, and stakeholder notifications.
- Deactivation/stand down of response activities, including debriefing and post incident reviews.

13.0 Record Retention

Records relating to the EMP shall be maintained in accordance with the NRM Document Retention Standards.

14.0 Document Information and Revision History

Document Owner	Emergency Management
Original Author (s)	Roy McKnight
Document Approvers	Renee Alessio

Document Review and Revision Cycle			
Reviewed every three (3) years and revised as necessary			
Rev. #	**Revision Date**	**Revised By**	**Summary of Changes**
1.0	April 1, 2020	R. McKnight	All sections reviewed and updated; converted the legacy asset EM Program to NorthRiver Midstream Inc.
1.0	December 1, 2020	R. McKnight	Placed FRT on top of EOC page 14
1.1	February 23, 2022	R. McKnight	Updated Policy, Values and Principles
1.2	December 21, 2022	R. McKnight	Updated Section 9 describes how NRM consults and cooperates with other entities including Indigenous peoples in the emergency planning and emergency response process.
2.0	November 20, 2023	R. McKnight	Replaced references to BCOGC to BCER. Updated hazard and risk management process and definition of imminent hazard.
2.1	August 13, 2024	R. McKnight	Updated to describe control room operator responsibilities during a pipeline emergency.
3.0	August 14, 2024	R. McKnight	Converted text to table to describe processes required under the CER OPR.
4.0	March 2026	S. Erskine	Updated manual to align with changes to AER's Directive 71 and more closely align with CSA Z246.2:23. Updated manual to comply with new HSSE document formatting and numbering requirements.

Document Review and Revision Cycle			
Reviewed every three (3) years and revised as necessary			
Rev. #	**Revision Date**	**Revised By**	**Summary of Changes**
			Removed duplicate information that is contained within other management system documents and programs.