

NOVA Chemicals Pipeline Operations Preparation for an Emergency Response

July 2017

Introduction

At NOVA Chemicals we care about the safety of our employees, neighbours, landowners, communities and the environment along the pipeline systems we operate and at all our petrochemical facilities. We are committed to Responsible Care® which includes Community Awareness and Emergency Response, and the highest standard for health, safety, security, pipeline and facility integrity, and environmental performance.

All of our pipeline operations focus on prevention of incidents, such as leaks, and we make safety a priority. For example:

- Experienced operators monitor our pipelines 24 hours per day, 365 days per year. They continuously monitor pipeline pressure, temperature and flow conditions. Computerized systems immediately sound an alarm if any abnormalities are detected.
- Aerial and ground patrols are complemented by internal inspections and a corrosion protection system.
- If a potential problem or leak is detected, maintenance crews located at strategic points along the pipelines are dispatched immediately to safely deal with the situation.
- All of the pipelines we operate were constructed in accordance with all applicable regulatory requirements.

In the event of a leak or other incident such as a fire, security breach or natural disaster, we are prepared to respond immediately with trained personnel and, as required, in co-operation with mutual aid responders and agencies. In all cases, we implement our detailed Emergency Response Plan specific to that location (also known as an Emergency Procedures Manual in CSA Z246.2) to ensure a timely, effective response and to minimize the effect of a potentially hazardous situation. As relevant to the location, NOVA Chemicals has firefighting and safeguard equipment in place, including spill response trailers.

The first priority in any emergency response is the safety of neighbours and employees.

Key Public Safety Information

Through NOVA Chemicals' public awareness and engagement programs, we have established co-operative working relationships with:

- Counties and municipalities through which our pipeline systems run
- Emergency responders and agencies
- Industry associations
- Neighbouring industries
- Landowners
- Residents

Through our regular communication, we encourage residents or other stakeholders to feel comfortable contacting us at any time. In our communications materials we provide information on:

- Our Emergency Response Plan for the area
- Products carried in our pipelines and associated potential hazards
- How to contact NOVA Chemicals in the event of an incident
- What actions to take in the event of an emergency
- How to update contact and other resident information

Please see our [regional brochures](#) for more information specific to each area.

Emergency Response Plans

Emergency preparedness and response requires a systematic approach to ensure that all hazards are anticipated and prepared for so that a response is rapid, effective and protective of the public and the environment. An emergency response involving NOVA Chemicals and first responders is guided by an Emergency Response Plan (also known as an Emergency Procedures Manual).

Our Emergency Response Plans are constantly being updated. The plans are location-specific, identify first responders in the area of the pipeline and are regularly practised through field and tabletop emergency response exercises. These plans can be accessed on our [company website](#). In keeping with [National Energy Board \(NEB\) regulations](#), portions of the document are not available where there is personal information or information that can affect the security of the pipeline or particular properties.

Our Emergency Response Plans are a part of a larger Emergency Management Program which is described in the following sections.

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Emergency Management Program Summary

Our Emergency Management Program (EM Program) guides us to provide the best emergency response under all foreseeable circumstances. It also is designed to provide a continuous cycle of improvement as mandated by the *National Energy Board Onshore Pipeline Regulations*.

Our EM Program is a comprehensive set of policies, procedures, and processes. The following sections summarize key elements that NOVA Chemicals employs to protect our stakeholders.

Policy and Commitment

An effective EM Program requires a commitment of all those involved in an emergency. That commitment starts with the NOVA Chemicals Management Team and the policies we have put in place related to safety and emergency response. Our [Responsible Care® and Sustainability Policy](#) states that we “*Manage our business with the belief that products and processes can be managed in a sustainable manner and that personal and process incidents that could harm people, property or the environment can be prevented.*” Supporting this policy and our Responsible Care standards, we have a comprehensive EM Program and location-specific Emergency Response Plans.

Goal and Objectives

NOVA Chemicals EM Program goal is to be prepared to effectively respond in the event of an emergency. Objectives include annual reviewing and updating of our Emergency Response Plans, conducting practices and drills and conducting annual emergency response training for our pipeline personnel and responder partners.

Our EM Program is integrated with other pipeline programs aimed at preventing and mitigating releases of substances from our pipelines:

- **Safety Management Program** — identification and mitigation of occupational and industrial safety hazards for the protection of people and property.
- **Security Management Program** — monitoring for security threats to prevent third-party impacts that could cause an injury or incident.
- **Integrity Management Program** — hazard evaluation and risk assessments to determine threats to the pipeline and what mitigation is required to prevent releases.
- **Damage Prevention Program** — monitoring and public awareness programs to prevent third-party damage that could cause an injury or incident.
- **Environmental Protection Program** — guidance for the clean-up of soil / groundwater in the event of a release as well as reclamation / restoration of vegetation and soils.

Hazard Identification, Risk Assessment and Controls

Comprehensive risk assessments have been conducted for NOVA Chemicals' pipeline systems using our Integrated Risk Assessment Approach (IRAP). These risk assessments have been used to identify and develop mitigation strategies and response procedures for a variety of potential pipeline failures (through modeling).

Potential pipeline hazards include external corrosion, internal corrosion, manufacturing defects, construction defects, equipment failure, third-party damage, human factors and weather-related and outside forces. Unapproved ground disturbances are one of the most common causes of pipeline damage.

Controls are detailed within the various programs noted above under Goal and Objectives.

Stakeholder Liaison to Prepare for Emergencies

Stakeholders that may be involved in responding to a pipeline incident (e.g. first responders and municipalities) are consulted as we regularly review and update our Emergency Response Plans.

During these consultations we include discussion of pipeline operation details in each specific area, isolation capability, release rates (including worst-case scenarios with a rupture), location and types of markings, Emergency Planning Zones, municipal capabilities and location of potential evacuation and reception centres. Roles and responsibilities of the various parties are reviewed including local incident command, local disaster services, pipeline incident command and NOVA Chemicals Emergency Operations Centre (EOC). Procedures for contacting the public and road blocks are outlined and updated. Contact information for residents and others along our pipelines is maintained and updated through our public awareness programs and is included in each Emergency Response Plan.

Continuing Education

NOVA Chemicals provides continuing education for emergency responders, local public officials, excavators, industry and the public residing adjacent to our pipeline to inform them of pipeline locations, potential hazards and emergency situations, safety procedures to be followed in the case of an emergency and circumstances for evacuation and / or sheltering.

Depending on the stakeholder and regional applicability, there are various methods and frequencies for continuing education. Outreach occurs through mailings, near-neighbour visits, meetings, open houses, and collaborative initiatives facilitated through industry partnerships. The frequency of outreach activities varies.

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Training, Drills and Field Exercises

Regular training is an essential aspect to any effective EM Program.

The NOVA Chemicals Pipeline Emergency Response Teams annually conduct exercises (up to four times per region) with drills specific to each pipeline. These exercises are designed to ensure rotation of tabletop, functional, and full scale (major) drills to encompass a variety of scenarios and response personnel. Whenever possible and appropriate, local emergency response agencies and regulatory representatives are invited to participate and / or observe the exercises.

NOVA Chemicals also conducts tailored training for our personnel and designated emergency responders commensurate with their responsibilities. Training elements include:

- **Basic Emergency Response Plan Familiarization** — Basic information about the Emergency Response Plan(s) is provided to all NOVA Chemicals' employees who may be affected by a pipeline emergency. The training consists of a plan overview and actions expected from the employee. Refresher training is provided once a year.
- **Emergency Operations Centre (EOC) Training** — NOVA Chemicals' personnel assigned responsibilities for pipeline emergency operations are trained in the principles and terminology of the Incident Command System (ICS). The ICS is widely employed by municipal emergency response agencies and many of NOVA Chemicals' industrial partners. This training enables our personnel to work effectively with municipal, government and industrial partners in response situations. Persons assigned to the EOC are trained in techniques and theories for managing emergency operations; updates are provided regularly.
- **Media and Public Communications** — All pipeline employees know how they will be advised of an emergency, how communications are to be handled, and who is responsible for public and media communications.

We also routinely identify opportunities for joint training with other organizations such as external contractors, municipal emergency services and offsite resources.

Incident Management System

NOVA Chemicals Pipeline Emergency Response Team uses the Incident Command System (ICS) to manage all emergency response activities involving our pipelines.

NOVA Chemicals EOC utilizes various section chiefs to communicate with respective provincial and federal regulatory agencies as required.

During an incident, until local first responders arrive, the field pipeline technician will maintain incident command, then hand over responsibilities when the appropriate agency arrives.

Contact us anytime for more information or in the event of an emergency:

Pipelines Serving Manufacturing East (Sarnia / Lambton, Ontario)

NOVA Chemicals 24 / 7 Pipeline Emergency Line:

In Canada / US: **1-519-862-2002** or **1-800-278-0584**

General Inquiries:

In Canada / US: **1-519-862-2911** or **1-844-346-3202 (press 0 for an attendant)** or **manestcomm@novachem.com**

Pipelines Serving Manufacturing West (Joffre, Alberta)

NOVA Chemicals 24 / 7 Pipeline Emergency and Non-Emergency Line: Toll Free: **1-800-780-6682**

Community Information:

www.novachemicals.com/joffre or **joffresite@novachem.com**