



Safety Partners, Safe Neighbors: The First Responder Guide to an NGL Emergency



Safety Partners,

Safe Neighbors:

The First

Responder

Guide to an NGL

Emergency

First Responders play a valuable role in helping BP's Natural Gas Liquids (NGL) operations ably respond to emergencies and other situations that may occur. Police, firefighters, ambulance workers, paramedics, and government disaster services -- all play a role in protecting the health and safety of neighbors living nearby.

This emphasizes the importance of working together as safety partners in achieving BP's main goal of "no accidents, no harm to people and no damage to the environment."

The purpose of this document is to give First Responders a guide that:

- Explains their roles and BP's roles.
- Gives some background on BP, the company's pipelines and the products we transport.
- Outlines BP's emergency response systems for pipelines.
- Describes emergency planning and awareness zones, and emergency response plans.
- Provides BP contact information for various BP pipelines.

We hope by working together with First Responders, we can be ready to effectively respond to any emergency.



Safety Partners,

Natural Gas Liquids (NGLs)

NGLs are compounds removed from natural gas during processing. Under regular atmospheric conditions, NGLs exist in gaseous form. However, for shipping and storage convenience, BP liquifies the NGLs contained in our pipeline systems by applying pressure to the products.

NGLs include such products as ethane, propane and butane. Propane is the fuel of choice for the everyday barbecue while butane powers lighters and is used in wintertime blending for gasoline. Ethane is used to make brake fluid, radiator coolant, floor tiles, and products such as food wrap and plastic packaging.

NGLs may be harmful or fatal if inhaled. They are highly flammable and explosive. Exposure can cause eye and skin irritation, and burns similar to frostbite. Exposure can also lead to headaches, drowsiness, nausea and may lead to unconsciousness. All NGL material safety data sheets (MSDS) can be obtained at www.ngl.com.

BP's Natural Gas Liquids (NGL) Operations

BP transports NGLs mainly through various pipeline systems. Pipelines are the safest, most reliable and cost-effective way of transporting this valuable product from the producing areas of Western Canada to markets in Canada and the United States. The pipelines run all day, all night and all year. BP has several main pipeline operations.

Cochin System

The Cochin Pipeline is a 1938-mile, 12-inch pipeline system. It transports ethane, propane and butane under high pressure in liquid form. The system stretches from Fort Saskatchewan, Alberta, through Saskatchewan, the US mid-West and back into Canada at Windsor. It continues into Sarnia, Ontario, a centre for the Canadian petrochemical industry. BP operates and is a partner in the pipeline.

LPG Sarnia Downstream Pipeline

This eight-inch line, built in 1971, transports propane and different butanes in liquid form at a maximum rate of 42,000 barrels/day.

The line is on both sides of the border. It starts at the BP Fractionation plant in Sarnia, Ontario Canada and ends at the storage and distribution facility in St. Clair, Michigan.

The product is pumped from the Sarnia Fractionation facility to the St. Clair Terminal the MUST storage facilities in Marysville, Michigan.

NGL Kalkaska Pipeline

The eight-inch line, built in 1973, transports NGLs and ethane in liquid form from the Shell facility in Kalkaska, Michigan to the BP Fractionation plant in Sarnia, Ontario, Canada.

BP operates 11.5 miles of the line from Kalkaska Pipeline — about three miles of the section operated by BP is on the U.S. side of St. Clair River in Marysville, Michigan.

Condensate Pipeline

Built in 1971, the eight-inch Condensate line runs from the BP Fractionation plant in Sarnia to the Sun Pipeline terminal and the MUST storage facilities in Marysville, Michigan.

This line is currently out of service.

Emergency Roles



BP employees work hard to ensure we do not have incidents or

emergencies. If one does occur, however, all our facilities and pipeline systems have emergency response plans (ERPs). These plans are comprehensive, site-specific, and are developed and used by trained people who care.

Our ERPs consider many factors, including the level of potential impact and the systems required to adequately respond to emergencies. It involves an Emergency Planning Zone (EPZ) and Emergency Awareness Zones (EAZ), areas around a pipeline or facility where we must plan for notification or evacuation of full-time residents or visitors to the area (e.g., campers, hunters, trappers) in the event of an incident.

That is why we meet with people living within the EPZ and EAZ and ask them for contact information.

If an emergency does occur, BP will immediately launch its ERP. The plan details the roles employees must play along with our First Responder partners. The first priority of any emergency is the safety of First Responders, neighbors and employees.

BP's Roles in an Emergency

BP's roles include the following:

- We will enact our emergency response plan.
- We will stop the flow of NGLs to the affected area.
- We will investigate the incident and call on First Responder help if or required.
- BP will coordinate with First Responders to notify residents and evacuate the hazard area.
- Our 24-hour emergency response team will send an emergency response crew to the area.

First Responders' Role in an Emergency

When dealing with an NGL emergency at a pipeline or facility:

- *Do not put out the fire. You may not be familiar with the burning product. Contain (if safe to do so), prevent and extinguish any secondary fires that may result.*
- *Do not attempt to operate any valves. Allow BP's experts clear access to the emergency site.*
- *Be prepared to evacuate people that live within the Emergency Awareness Zone (EAZ).*
- *Keep crowd control outside the EAZ. Establish a safe perimeter of a minimum of 1/2 mile for any emergency.*

Signs of a Natural Gas Liquids Release Emergency

If you smell...

- An odor similar to gasoline (but stronger), it may be NGLs.
- A strong "skunk" odor, it may be natural gas.

If you see...

- A vapor cloud or frosted ground along a pipeline, it may be an NGL leak.
- A wet patch of yellowish liquid (like the color of ginger ale), it may be condensate.
- Obvious damage, fire or an explosion, or flying debris, it may be a pipeline break.

If you hear...

- A loud hissing or roaring noise, it may mean there is a break in the pipeline.

If you suspect a leak...

- Shut down and abandon any equipment you are operating.
- Leave the area immediately (walk uphill and upwind) and warn others to stay away.
- Eliminate sources of ignition (including cell phone usage).
- Do not attempt to operate pipeline valves.
- Once you have reached safety, call 911 and then contact the BP 24-hour emergency line.

BP's Pipeline Safety Program

As we've mentioned, BP's goal is "no accidents, no harm to people, and no damage to the environment." To help us achieve this goal, we use a number of measures to ensure we operate our pipeline systems in a manner that is safe, environmentally responsible and meets or exceeds government requirements.

One-Call Systems

To prevent incidents and to ensure the digging community knows where our underground lines are located, BP participates and is involved in the One-Call systems in participating states. The numbers are:

Michigan Miss Dig: 1-800-482-7171

Pipe Selection

Our safety effort involves the selection of pipe – we select the best product. We rigorously test the pipe to ensure it meets our standards. Once we are ready to install the pipeline, we weld the pipe segments together and x-ray the welds to ensure they are complete. Before putting the pipeline into operation, we test it at a higher pressure than would normally exist in the line. This tells us if the pipeline is safe to operate.

Pipeline Protection

After we bury the pipe, we install cathodic protection, a method that uses weak electric current to help prevent corrosion on the pipeline. BP also has a regular inspection program that looks at the condition of our pipeline systems. Our program uses sophisticated electronic tools called "smart pigs" that travel inside the pipe and detect dents and metal loss on the pipeline. The tools are called "pigs" because early models squealed as they moved through the pipe.

24-Hour Control Centers

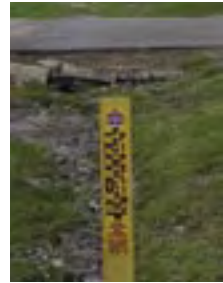
We use state-of-the-art leak detection computer systems to monitor the flow of products in and out of our pipeline systems. Our control center is located at Sarnia, Ontario, Canada.

Physical Inspections

Low-flying aircraft also regularly patrol the major pipelines. Experienced pilots look for signs of leaks or construction activity that may accidentally cause a leak. In addition, BP conducts ground surveys at regular intervals in key areas.

Pipeline Markers

To ensure everyone knows the locations of our pipeline, we place pipeline markers in high traffic areas such as road and railway crossings. The markers are near but not necessarily on top of the pipeline or lines. It is important to remember that the markers may *not* tell you the exact location, route, depth or number of pipelines.



BP NGL Operations Emergency Numbers

BP Canada Energy (Sarnia, Ontario, Canada)
1-800-265-1423

Michigan Miss Dig
1-800-482-7171

Local Issues
Don Bailey
1-810-329-4703

