

Pipelines are a proven safe mode of transportation for petroleum products that are central to our everyday life and essential to the United States' economy. Sunoco Logistics L.P. and its subsidiary, Sunoco Pipeline L.P. are committed to safety at the highest level.

The safety of Sunoco Logistics' (SXL) employees and the community is our highest priority as an organization, and we believe that no project is worth doing if it cannot be done safely. It is every employee's responsibility to conduct business in accordance with this mission, and it is management's commitment to provide the resources, equipment, training, and tools to ensure continued improvement.

That means rigorous testing of all pipes, new and existing, using the most advanced technologies available to analyze a pipeline's condition, and monitor its operation in real time. Certified controllers closely watch the pipeline's pressure, temperature and flow, 24 hours, 7 days a week from a control center dedicated exclusively to the safe operation of our pipelines, and can shut down pipeline operations remotely. We patrol the pipeline route, or right-of-way, on the ground and by air for any potential hazards. And we reach out to neighbors, contractors and first responders to educate them about the pipelines in their communities.

America's vast pipeline network stretches over 2.5 million miles. Each year, pipelines carry billions of gallons of petroleum products -- including crude oil, gasoline, diesel and natural gas liquids like propane -- from areas where they are produced, to areas where they are refined and ultimately used. Sunoco Pipeline has been moving all of these products safely for 75 years.

Products will ultimately be transported from an origin point to a destination where they are in demand. Of all of the modes of transportation available, pipelines are the safest mode of transporting petroleum products, both for humans and the environment, as documented by the U.S. Department of Transportation. Pipeline safety increased by more than 60 percent between 2003 and 2012, and serious incidents, already rare, hit a record low in 2013, according to the Pipeline and

Hazardous Material Safety Administration (PHMSA), the division of the U.S. Department of Transportation responsible for enforcing pipeline safety standards.

SXL controls more than 7,500 miles of pipeline, and we employ best management practices in the design, fabrication and the systematic testing and inspecting

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***SXL will take the necessary steps to both minimize the possibility of a leaks and detect any possible leaks in the event they do occur. These steps include:***

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**SXL works closely with the companies that design, build and coat the pipelines** that we use in our operations. All new pipe is thoroughly tested and inspected to ensure the pipe meets industry standards and is in accordance with all regulatory requirements.

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**All newly-installed steel pipelines are treated with a protective bonded-epoxy coating** to prevent corrosion. In addition, cathodic protection systems which further inhibit corrosion are placed along the pipeline.

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**As the sections of pipeline are being welded together,** an independent, third-party inspector must approve each weld, using x-ray technology to ensure that each section is securely attached.

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**Once the pipeline is installed, SXL will test the line** with water at pressures at least 25 percent above the top pressure at which the line will be operating. This confirms the pipeline's strength.

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**SXL conducts periodic inspections of our pipelines** to determine that they are operating safely and efficiently. Inspection tools, commonly referred to as "smart pigs," travel internally throughout the line, measuring wall thickness and searching for indications that warrant attention. We monitor via several testing methods and take appropriate steps such as external coating repairs or internal Biocide treatment in addition to the smart pigs. We make necessary repairs to ensure that the line is operating safely.

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of our pipelines and our facilities. We adhere to a strict integrity management and maintenance program on all of our existing operations to ensure that our network meets or exceeds the requirements of regulatory agencies including the Pipeline and Hazardous Material Safety Administration.

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**In the unlikely event a leak would occur, we have in place the emergency and spill response plans** required by Federal and State regulatory agencies and we have teams trained to respond immediately.

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**In an effort to prevent damage to underground facilities,** SXL participates in the *One Call* program in all areas where we have operations. *One Call* works with project owners, designers, excavators and facilities owners to make sure utilities and pipelines are clearly marked prior to any surface work being done.

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**Pipeline markers and signage are placed along all of our routes** at key intersections to notify the community of the pipeline location. All signage will identify Sunoco Pipeline or affiliate company as the operator and have our emergency toll-free number: 800-786-7440.

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**SXL conducts emergency response training** with local first responders throughout all of our development area.

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**We conduct routine inspections and aerial patrols of our pipelines and facilities.** Our inspectors look at any abnormalities and for nearby construction activity that could compromise the line. If an issue is detected, an SXL field technician is immediately assigned to correct the matter.

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**Through our community engagement plan, we work with landowners and other members of the community** to educate them about our operations and encourage them to contact SXL with any potential issues.

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# Pipelines: Engineered for Safety & Reliability



SXL monitors our network via a computerized Supervisory Control and Data Acquisition (SCADA) system on an around-the-clock basis, 365 days of the year, from our control center. The control center is staffed by highly trained pipeline controllers and features redundant computer and electrical systems. A completely separate control center is also available if needed.

The SCADA system tracks pressure, flow, temperature and other operating data via a series of field instruments in order to ensure that all operations are normal. The system provides alarms to alert the controller to take action in the event of an abnormal condition and will automatically shut down the system if needed. Our pipeline controllers maintain communications with field and terminal operations so that all involved employees are kept abreast of current and planned pipeline operations.

In addition to our vast network of pipeline infrastructure, we operate and maintain other facilities that play integral roles in our operations, including pump stations and above-ground valve sites.

Pump stations adjust pressure, pump the product along the line, monitor the flow of the product, and keep track of other critical information. Typically, stations are positioned at intervals throughout the length of the line, depending on the product, the size of the pipe, engineering design, terrain, and power availability.

Above-ground valve sites are installed along our pipeline system to provide an additional way of controlling flow. The valves normally are open, but when a section of pipeline requires maintenance, the valves can be closed to isolate that section of the pipeline. Many of these valves can be closed remotely from our control centers.

Our safety program will continue to evolve and improve as best practices and lessons learned are shared among all of our operations, with a constant goal of achieving safe, incident-free operations throughout all of Sunoco Logistics.

For more information, please contact us at:

*Sunoco Logistics Hotline:*  
855-430-4491

*Sunoco Logistics Projects Website:*  
[www.SXLpipelineprojects.com](http://www.SXLpipelineprojects.com)

*Sunoco Logistics*  
525 Fritztown Road  
Sinking Spring, Pennsylvania 19608



*A Sunoco Logistics employee inspects the pipeline during construction of the Mariner East I pipeline.*

## What is Mariner East?

The Mariner East projects are designed to provide needed pipeline infrastructure to transport ethane, propane, and other petroleum products from the Marcellus Shale to markets in Pennsylvania and elsewhere. Additionally, the Mariner projects will play a major contributing role in repurposing of the Marcus Hook Industrial Complex as the Northeast hub for distribution of natural gas liquids to commercial markets domestically and globally.

To date, Mariner East Phase 1 has created jobs and economic development opportunities throughout Pennsylvania, and the potential for additional job creation and economic development via Mariner East Phase 2 will be recognized in Ohio, West Virginia, Pennsylvania and Delaware.

### Mariner East Phase 1

Mariner East Phase 1 is a project that connects a new, approximately 50-mile pipeline with existing lines to move ethane and propane from operations in Western Pennsylvania to the Marcus Hook facility along the Delaware River, where the products will be processed and sold in the United States and abroad.

Ethane and propane are byproducts of natural gas development. In order to utilize these byproducts, a new pipeline to transport ethane and propane as natural gas liquids (NGLs) from a MarkWest facility in Houston, Pennsylvania to Delmont, Pennsylvania will be built as part of the project. It will link with an existing pipeline that runs from Western Pennsylvania to the Marcus Hook facility.

The Marcus Hook facility is located in southern Delaware County, outside Philadelphia. A portion of the facility is in the state of Delaware.

### Mariner East Phase 2

Mariner East Phase 2 is a project to build a new pipeline from Ohio through West Virginia, Pennsylvania and Delaware to transport Liquid Petroleum Gases (LPGs), also known as Natural Gas Liquids (NGLs), to the Marcus Hook facility along the Delaware River. The project will also lead to the creation of an NGL hub for distribution and processing for commercial markets.

Mariner East Phase 2 will expand the capacity of the Mariner East project by increasing the capacity of natural gas liquids moved from the Marcellus Shale to additional on-loading and off-loading points within Pennsylvania via a new 16-inch or larger pipeline.

Phase 2 is an important enhancement to our nation's pipeline infrastructure and will utilize the region's shale resources to create jobs in Pennsylvania and the surrounding region, rather than shipping it to the Gulf Coast. Mariner East Phase 2 is scheduled to be completed in late 2016.

## Pipeline Regulation

Due to the interstate connection of the pipeline, the US Department of Transportation Pipeline and Hazardous Materials Safety Administration is responsible for regulating the pipeline. PHMSA regulates and ensures safe and secure movement of hazardous materials to industry and consumers by all modes of transportation, including pipelines. With respect to intrastate portions of product movement within Pennsylvania, the Pennsylvania Public Utility Commission (PUC) regulates the service of pipeline operators and collects public utility tax on pipeline revenue.

## Built for Safety and Security

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## Economic Benefits

Total amount of Natural Gas Liquids (propane, ethane and butane) per day:  
*Phase 1* – 70,000 barrels per day  
*Phase 2* – initial capacity of 275,000 barrels per day

Phase 2 Planned Capital Investment:  
**\$2.5 billion**

Total Planned Capital Investment:  
Approximately \$3 billion in Pennsylvania

## Project Timetable

*Phase 1* – Propane delivery - In-service  
Project completion - Mid 2015

*Phase 2* – Surveying complete  
Land acquisition - Ongoing  
Construction - TBD  
Completion - End of 2016

## Information & Inquiries:

Sunoco Logistics  
*Mariner East Pipeline Project*  
525 Fritztown Road  
Sinking Spring, Pennsylvania 19608  
855.430.4491  
sxlpipelineprojects.com

# Mariner East Projects



- Proposed ME2 Pipeline
- Existing Third Party Pipeline
- ME1 Pipeline
- SXL Terminal Facilities
- Third Party Facilities
- Propane Delivery Points
- Marcellus Shale Formation

For additional information visit [SXLPipelineProjects.com](http://SXLPipelineProjects.com) and follow @SXLupdates on Twitter