

PIPELINE SAFETY REGULATION

This memorandum mainly addresses pipeline safety regulation in North Dakota. Safety may be addressed at three different times--when the pipeline is being put in the ground, after the pipeline is in the ground, and after there is a leak in the pipeline. When the pipeline is being put in the ground, safety regulations as to siting and engineering apply. When the pipeline is in the ground, regulations as to monitoring and upkeep apply. When there is a leak, regulations as to emergency response and cleanup apply.

With respect to pipeline safety, there are two main types of pipelines--natural gas and hazardous liquids. The regulation of these pipelines is dependent on whether the pipeline is interstate or intrastate. In addition, regulation is dependent on the type of pipeline--production, gathering, transmission, or distribution.

Production pipelines are near wellhead and are used to produce and prepare the gas or liquid for transport. Gathering pipelines are used to transport the gas or oil from the well pad to another facility, for refinement if gas and for storage if oil, followed by a transmission pipeline. Transmission pipelines are large lines that move gas and oil long distances and, especially for gas, at high pressure. Usually for gas, the transmission pipeline goes to distribution pipelines that are a system of mains and service lines that deliver gas to homes and businesses, usually at low pressure. Usually for oil, the transmission pipeline goes to a refinery. After the refinery, the products move on a refined product transmission pipeline to market.

PIPELINE SAFETY REGULATION JURISDICTION

Two statutes provide the framework for the federal pipeline safety program. The Natural Gas Pipeline Safety Act of 1968 as amended authorizes the federal Department of Transportation to regulate pipeline transportation of natural (flammable, toxic, or corrosive) gas and other gases as well as the transportation and storage of liquefied natural gas (LNG). Similarly, the Hazardous Liquid Pipeline Safety Act of 1979 as amended authorizes the department to regulate pipeline transportation of hazardous liquids (crude oil, petroleum products, anhydrous ammonia, and carbon dioxide). In short, the nation's pipeline safety programs are overseen by Congress and administered by the United States Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA). The work of PHMSA is done through the Office of Pipeline Safety (OPS). There are other offices, for example the Office of Hazardous Materials Safety carries out a national safety program, including security matters, to protect against the risks to life and property inherent in the transportation of hazardous materials in commerce.

While the federal government is primarily responsible for developing, issuing, and enforcing pipeline safety regulations, the pipeline safety statutes provide for state assumption of the intrastate regulatory, inspection, and enforcement responsibilities under an annual certification. To qualify for certification, a state must adopt the minimum federal regulations and may adopt additional or more stringent regulations as long as they are not incompatible. A state also must provide for enforcement sanctions substantially the same as those authorized by the pipeline safety statutes. Once certified, the state is responsible for oversight of pipelines that do not cross state boundaries. Except for Alaska and Hawaii, every state is participating in the natural gas pipeline safety program. If a state decides not to participate, PHMSA does the safety inspection on its own. At least 13 states participate in the liquid program. The lower number is most likely due to the significantly lower number of miles of liquid pipelines. At least 11 states act as interstate agents on behalf of the federal government. In this role, state personnel inspect interstate pipelines and submit reports to PHMSA, which carries out compliance and enforcement action as necessary.

States are allowed to adopt gas or liquid pipeline safety regulations that are stricter than federal government regulations, and the overwhelming majority of states do have more stringent requirements. These have been developed over the years based on specific results of state inspections, changing public priorities, and increased safety expectations of the local public.

As provided in the *Compendium of State Pipeline Safety Requirements & Initiatives Providing Increased Public Safety Levels compared to Code of Federal Regulations*, 2nd Edition, 2013, by the National Association of Pipeline Safety Representatives, stricter requirements include:

- Enhanced reporting.
- More direct oversight.
- Valves.
- Pressure testing.

- Operating pressure.
- Damage prevention.
- Training/qualifications (not including operator qualification).
- Operator qualification.
- Meter location/protection.
- Odorant.
- Leak tests.
- Response to leaks.
- Replacement programs.
- Authority beyond OPS (not rate).
- Extending local distribution company responsibility.
- External/internal corrosion.
- Cathodic protection.
- Design/install requirements.
- Risk-based approaches.
- Enhanced recordkeeping.
- Inactive services.
- Stronger enforcement penalties.

NATURAL GAS PIPELINES

In North Dakota, through certification by PHMSA, the state inspects and enforces the pipeline safety regulations for intrastate gas pipeline operators in this state, in particular distribution and transmission lines. The work is performed by the Public Service Commission (PSC). The statute under which OPS operates provides for state assumption of all or part of the intrastate regulatory and enforcement responsibility. Federal grant funds are used as an incentive to improve state program performance and to entice states to take more responsibility. The grants provide up to 80 percent of the state's cost. Interstate pipelines inspection and enforcement is done by PHMSA.

HAZARDOUS LIQUIDS PIPELINES

Hazardous liquids include crude oil, refined petroleum products, and highly volatile liquids, for example, butane, ethane, and propane. In North Dakota, the regulation of intrastate liquid pipelines is different from the regulation of gas pipelines. Instead of the state inspecting and regulating the pipeline as is done for gas, in this state PHMSA has jurisdiction over liquid pipelines. As for interstate pipelines, the regulation is the same and is done by PHMSA. At least five states are interstate agents for PHMSA for interstate regulation, but this state is not one.

OTHER FEDERAL PIPELINE REGULATION

The Federal Energy Regulatory Commission (FERC) regulates pipeline and storage facility construction and abandonment and transportation in interstate commerce in part by the establishment of rates for service. Interstate transmission pipeline companies develop tariffs that are approved by FERC. The tariff sets the price for transport and describes the specifications that need to be met before the product may be transported, for example, the allowable water and sediment content, temperature, density, and viscosity.

Hazardous liquid pipeline operators are required to have spill response plans. Currently, PHMSA approves these plans. The Oil Pollution Act of 1990 expressly allows states to institute additional and more stringent spill response planning requirements for oil pipelines and facilities.

PIPELINE REGULATION IN THIS STATE

Public Service Commission

The PSC regulates rates for common pipeline carriers for crude oil, coal, or gas purchased or sold in this state. Under North Dakota Century Code Section 49-02-01, the PSC regulates "pipeline utilities engaged in the transportation of gas, oil, coal and water." Under Section 49-02-01.2, the PSC may establish minimum safety standards for gas distribution facilities and intrastate pipeline facilities used for gas or liquids, regardless of whether the pipeline is owned or operated by a public utility. However, under state law, the regulation may not be more stringent than federal law. Under Section 49-02-02, the PSC may cooperate with the federal government for the regulation of safety standards for pipeline facilities and the transportation through those pipeline facilities.

The PSC may order an operator to take corrective action if the pipeline is hazardous to life or property. In addition, under Section 49-07-05.1, the commission may impose a civil penalty not to exceed \$200,000 for each violation for each day, with a maximum of \$2 million, for a violation of rules under Section 49-02-02.1.

Under Chapter 49-19, the PSC regulates common pipeline carriers. Under Section 49-19-01, a common pipeline carrier is a person operating a gas or liquid pipeline operated for hire or from the place of production to any distributing, refining, or marketing center or reshipping point. The term includes a person who transports natural gas through right of way granted through eminent domain or a person is a common carrier under federal law. One benefit of being a common carrier is the availability of eminent domain and the use of public right of way. However, the rates of the common carrier are regulated.

Although eminent domain and siting are fairly mutually exclusive concepts, a pipeline company must be a common carrier to be entitled to exercise eminent domain. Not only does the pipeline company have to be a common carrier, under Section 49-22-07, a utility may not construct a pipeline or exercise the right of eminent domain without first obtaining a route permit from the PSC.

Chapter 49-22 provides for the siting of energy conversion and transmission facilities. Under Section 49-22-03, a transmission facility includes a gas or liquid transmission line and associated facilities but does not include an oil or gas gathering system, a pipeline with an outside diameter of 4.5 inches or less that will not be trenched, or a pipeline less than one mile long. A gathering system includes pipelines used to collect oil from the lease site to the first pipeline storage site and pipelines used to collect gas from the well to the gas processing facility that produces end-use consumer-quality gas.

Under Section 49-22-16, the issuance of a permit is the sole route approval required to be obtained by the utility. A permit for the construction of a pipeline within a designated corridor may supersede and preempt any local land use; zoning; or building rules, regulations, or ordinances upon a finding by the commission that the local rules, regulations, or ordinances are unreasonably restrictive in view of existing technology, factors of cost or economies, or needs of consumers regardless of their location. Without this finding, a route may not be designated which violates local land use; zoning; or building rules, regulations, or ordinances. In addition, the pipeline must obtain state permits required to construct and operate the pipeline and must follow the rules of any state agency.

Industrial Commission

The main regulation by the oil and gas industry by the Industrial Commission is contained in Chapter 38-08. Under Section 38-08-02, an underground gathering pipeline is a gas or liquid pipeline, including water, associated with the production of oil and gas that is not subject to PSC regulation. In addition, water and wastewater from drilling activities is not regulated under federal pipeline safety rules and states may regulate. Under Section 38-08-26, the commission has created a geographic information system database for pipeline shape files. The owner or operator of an underground gathering pipeline must submit the file to the commission. The files are confidential but may be used by the commission, the landowner or tenant of the property on which the pipeline is located, and the Tax Commissioner.

One-Call Notice System

The geographic information system database is separate from the One-Call excavation notice system in Chapter 49-23, although both provide the location of pipelines. The notification center does not know the location of underground facilities but knows the underground facility operators in the area and notifies these operators of a locate request by an excavator. The operator uses an online-based mapping software that the operator logs into and draws polygons in areas where the operator has underground facilities. When an excavator calls the One-Call center, a person at the center draws a polygon on a map of the excavator's dig site based off the information provided by the excavator. The software will populate a list of operators whose polygons intersect the

one drawn by the person at the call center. All the information provided by the excavator is sent to each of the operators that have facilities in the dig area as a "ticket." It is then the operator's responsibility to locate the lines through staff or through contract locators.

This system creates an issue with an excavator who follows One-Call procedures and is excavating and finds an abandoned pipeline. Under Section 49-23-04, the excavator may not presume the underground facility is abandoned unless the facility has been verified as abandoned by reference to installation records or testing. The notification center is required to establish a method of providing personnel from a facility owner to inspect whether the pipeline is abandoned or inactive. In short, an inactive facility must be considered active. In the future, these issues may abate if the facilities are found by the locator and not by the excavator while excavating. In 2013 the requirement that an underground facility owner make all new facilities locatable was added to the law.

The following is a matrix of federal and state regulation of pipelines in this state:

Pipeline Regulation in North Dakota				
	Interstate		Intrastate	
	Gas	Liquid	Gas	Liquid
Safety	PHMSA	PHMSA	PSC	PHMSA
Siting (not gathering)	FERC	PSC	PSC	PSC
Common carrier rates	FERC	FERC	PSC	PSC
Spill response	PHMSA	PHMSA	PHMSA/PSC	PHMSA
	Em. Services ¹	Em. Services ¹	Em. Services ¹	Em. Services ¹
Spill cleanup	EPA/Health ²	EPA/Health ²	EPA/Health ²	EPA/Health ²

¹Em. Services means a combined state and local response of emergency services.
²EPA/Health means Environmental Protection Agency/State Department of Health.

Another table printed in *North Dakota Water, Special Edition 2014*, is attached as an [appendix](#).

regulation of gathering lines, something it previously had limited jurisdiction over and was primarily dependent on voluntary use of industry standards. If the new rules are approved, it is anticipated they will go into effect on April 1, 2014.

Safety

The U.S. Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) has regulatory responsibility for the safety of hazardous liquid and gas pipelines. As delegated by PHMSA, the PSC is responsible for safety issues related to intrastate natural gas pipelines.

Emergency Response

Eliminating any danger to the public and the environment posed by hazardous substance releases and oil spills is the primary responsibility of the Emergency Management Program of the Environmental Protection Agency, along with the North Dakota Department of Health. Additional federal agencies that may be involved in responding to a pipeline emergency include the Advisory Council on Historic Preservation, Army Corps of Engineers, Bureau of Indian Affairs, Bureau of Land Management, Bureau of Reclamation, Department of Transportation, Fish and Wildlife Service, Minerals Management Service, National Forest Service, National Oceanic and Atmospheric Administration Fisheries, and National Park Service.

Primary Government Agency Oversight of Energy Pipelines in North Dakota

		Hazardous Liquids			Natural Gas		
		Construction	Safety	Emergency Response	Construction	Safety	Emergency Response
Interstate (crosses state borders)	Gathering	IC*	IC*	EPA DOH*	IC*	IC*	EPA DOH*
	Transmission	PSC*	PHMSA	EPA DOH*	FERC	PHMSA	EPA DOH*
Intrastate (within North Dakota)	Gathering	IC	IC	EPA DOH	IC	IC	EPA DOH
	Transmission	PSC	PHMSA	EPA DOH	PSC	PSC	EPA DOH
	Distribution	N/A	N/A	N/A	PSC	PSC	EPA DOH

*North Dakota portion only

DOH: North Dakota Department of Health

EPA: Environmental Protection Agency

FERC: Federal Energy Regulatory Commission

IC: North Dakota Industrial Commission, Department of Mineral Resources, Oil and Gas Division

PHMSA: U.S. Department of Transportation, Pipeline and Hazardous Materials Safety Administration, Office of Pipeline Safety

PSC: North Dakota Public Service Commission

NOTE: This chart was compiled with the assistance of the North Dakota Public Service Commission. It was compiled with the best available information. However, given the rapid changes in the energy industry and the continued growth of the pipeline infrastructure in North Dakota, this is a dynamic oversight system that continues to evolve.