FEDERAL PIPELINE SAFETY PROGRAM

The U.S. Department of Transportation's Research and Special Programs Administration (RSPA), acting through the Office of Pipeline Safety (OPS), administers the national regulatory program to assure safe transportation of natural gas, petroleum, and other hazardous materials by pipeline. The mission of (OPS) is to protect the people and the environment of the United States through a comprehensive pipeline safety program that includes effective regulatory development, thorough pipeline compliance, high-quality training, and a strong, balanced federal/state partnership.

Legislative Authority. Two substantially identical statutes provide the framework for the federal pipeline safety program. The Natural Gas Pipeline Safety Act of 1968 as amended (NGPSA) authorizes the Department 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. Similarly, the Hazardous Liquid Pipeline Safety Act of 1979 as amended (HLPSA) authorizes the Department to regulate pipeline transportation of hazardous liquids (crude oil, petroleum products, anhydrous ammonia, and carbon dioxide).

The pipeline Safety Act of 1992, which amends NGPSA and HLPSA, extends the scope of the program by placing protection of the environment on a par with public safety as a basis for program activities. To improve response capabilities and minimize the environmental impact of oil discharges, the Oil Pollution Act of 1990 requires operators of vessels and onshore facilities, including pipeline, to prepare and submit plans for responding to oil spills from those facilities. RSPA has been delegated authority to require, review, and approve pipeline operator response plans.

Safety Jurisdiction. OPS safety jurisdiction over pipelines cover more than 3,000 gathering, transmission, and distribution operators as well as approximately 52,000 master meter and liquefied natural gas operators who own and/or operate approximately 1.7 million miles of gas pipelines. In addition, on the hazardous liquid side, OPS jurisdiction includes over 200 operators and an estimated 155,000 miles of pipelines. Since 1986, the pipeline safety program has been funded by a user fee assessed on a per-mile of transmission pipeline basis on each pipeline operator OPS regulates.

OPS has approximately 63 employees (authorized strength is 72). Half the employees work at Headquarters, and the other half are located in five regional offices across the country (Eastern Region – Washington, D. C.; Southern Region – Atlanta, Georgia; Central Region – Kansas City, Missouri; Southwest Region – Houston, Texas; Western Region – Lakewood, Colorado) and at RSPA's training facility, the Transportation Safety Institute (TSI), in Oklahoma City, Oklahoma.

Regulations and Risk Management. The pipeline safety regulations are written as performance standards. The regulations do not specify the methodology for compliance but set the level of safety to be attained and allow the pipeline operator discretion as to the method of achieving that level. The regulations:

- assure safety in design, construction, testing, operation, and maintenance of pipeline facilities and in the siting, construction, operation and maintenance of LNG facilities,

- administer the pipeline safety program, and
- delineate requirements for onshore response plans.

These regulations are published in the Code of Federal Regulations, 49 CFR Parts 190–199:

190 – Enforcement procedures
191 – Natural gas reporting requirements
192 – Natural gas
193 – Liquefied natural gas
194 – Response plans for onshore oil pipelines
195 – Hazardous liquids
198 – State grants
199 – Drug and alcohol testing

As an adjunct to regulation, OPS uses alert notices to inform pipeline operators and federal and state pipeline safety personnel of critical safety or environmental risks, usually identified during pipeline accident investigations. OPS also releases periodic advisory bulletins highlighting issues which have the potential of becoming safety or environmental risks. Alert notices and advisory bulletins are effective vehicles for flagging possible problems on an immediate basis and may, at times, avoid the need for additional regulations altogether.

To prioritize safety and environmental issues, OPS is developing a risk model that will enable it to assess the probability and consequences of any given risk, determine the cost impact of each practicable solution, and select the most effective solution for managing or abating the risk. This risk-based analysis will allow OPS to support the development and implementation of its pipeline safety agenda, leading to optimal use of scarce resources and effective response to increasing pipeline safety concerns.

Federal/State Partnership. While the federal government is primarily responsible for developing, issuing, and enforcing pipeline safety regulations, NGPSA and HLPSA provide for state assumption of the intrastate regulatory and enforcement responsibility under an annual certification. To qualify for certification, a state must adopt the federal regulations and may adopt additional or more stringent regulations as long as they are not incompatible. A state must also provide for injunctive and monetary sanctions substantially the same as those authorized by NGPSA/HLPSA.

A state agency which does not satisfy the criteria for certification may enter into an agreement to undertake certain aspects of the pipeline safety program for intrastate facilities on behalf of RSPA. While the state agency under an agreement will conduct surveillance of pipeline operators to ascertain compliance with federal safety regulations, any probable violations are reported to RSPA for enforcement action. NGPSA/HLPSA also provide for exclusive federal authority to regulate interstate pipelines. RSPA may authorize a state to act as its agent to inspect interstate pipelines, but retains responsibility for enforcement of the regulations.

RSPA is also authorized to reimburse a state agency up to 50 percent of the actual cost for carrying out its pipeline safety program, including the cost of personnel and equipment. Federal funding is determined through an allocation formula based on factors such as extent to which the state asserts safety jurisdiction over pipeline operators, whether the state has adopted all federal requirements,

and number and qualifications of state pipeline safety inspectors. OPS regional offices monitor the performance of the state agencies participating in the federal/state pipeline safety program. Most states have supported the concept of common stewardship in pipeline safety. This federal/state partnership forms the cornerstone of the pipeline safety program.

Compliance. A major aspect of pipeline safety is a sound, comprehensive compliance program. OPS regional offices perform inspections of interstate pipeline systems and intrastate facilities under direct federal jurisdiction. These facilities include certain municipal and master meter gas systems that by state law are not subject to state regulation or intrastate pipelines in states where the state agency is not participating in the program.

OPS has adopted the concept of an inspection unit to assure that each part of a pipeline system is inspected on a periodic basis. A unit is all or part of an operator's pipeline facility which is under common administrative control to ensure uniform design, construction, operation, and maintenance of the facility. To allocate its compliance resources in a manner maximizing the impact on safety, OPS has implemented a computer-based program, known as the pipeline inspection priority program (PIPP), which rates pipeline operators on system characteristics, filed reports, and accident data. PIPP helps increase productivity by targeting high-risk inspection units.

Upon determination that a probable violation of the pipeline safety regulations has occurred, OPS has a variety of enforcement actions available. These actions range from issuance of a warning letter to a hazardous facility order requiring immediate suspension of operations or restricted use of a pipeline facility. Violations have resulted in civil, and possibly criminal, penalties.

The leading cause of pipeline failures is outside force damage, followed by corrosion, which is becoming increasingly significant as the pipeline infrastructure ages. OPS requires pipeline operators to report immediately by telephone all accidents that fall under criteria established in the regulations. A written report must follow within 30 days of an accident. OPS investigates major pipeline accidents to determine whether corrective action is needed for continued operation, whether violations of regulations occurred, and whether revisions or additions to the regulations are needed. The National Transportation Safety Board may also perform an independent investigation of an accident to determine its probable cause.

Training. OPS sponsors a number of training activities. They are designed to familiarize government and industry personnel with the requirements of pipeline safety regulations and to educate federal and state inspectors in compliance requirements, inspection techniques, and enforcement procedures. These activities include in-depth classroom training at TSI and at various regional and state seminars. OPS requires new state safety inspectors to complete all applicable training courses at TSI in a 3-year period.

Data Analysis. OPS collects, compiles, and analyzes pipeline safety data to aid in decision making associated with regulation revisions, compliance, and training. OPS maintains a reporting system for compiling accident/safety-related condition reports submitted by gas and hazardous liquid pipeline operators and annual reports submitted by gas pipeline operators which include information on miles and types of pipelines. OPS also publishes a comprehensive annual report to Congress on the status of the pipeline safety program.

Research. OPS conducts research to support regulatory and compliance activity and to provide the technical and analytical foundation necessary for planning, evaluating, and implementing the pipeline safety program.

Advisory Committee. Congress mandated two advisory committees – the Technical Pipeline Safety Standards Committee (for gas) and the Technical Hazardous Liquid Pipeline Safety Standards Committee (for hazardous liquids) – to review proposed pipeline safety regulations for technical feasibility, reasonableness, and practicability. Committee members, who represent government, the industry, or the public, provide a valuable, independent base of technical knowledge and practical experience to RSPA. The committees generally meet twice a year to review regulations and provide advice on various pipeline safety issues.

Outreach. OPS works closely with the National Association of Pipeline Safety Representatives (NAPSR), an affiliation of state pipeline safety program managers. NAPSR generally holds a national board of directors meeting each year and five regional meeting, corresponding to the five OPS regional offices. These sessions promote information exchange on pipeline technology, inspection techniques, operational problems, significant accidents, and innovative approaches for implementing the pipeline safety program. NAPSR, on an annual basis, submits resolutions on a variety of pipeline safety concerns of national scope to OPS for consideration.

OPS also frequently interacts with organizations such as the National Association of Regulatory Utility Commissioners, American Gas Association, American Public Gas Association, Interstate Natural Gas Association of America, American Petroleum Institute, and Association of Oil Pipe Lines. Additionally, OPS coordinates with a number of federal agencies which have missions that affect pipeline safety, including the Minerals Management Service in the Department of the Interior, Department of Energy, Federal Energy Regulatory Commission, U.S. Coast Guard, and Environmental Protection Agency.