

Position Paper Oil and Gas Gathering Pipeline Systems

Position

Increasing development of natural gas and oil through hydraulic fracturing and horizontal drilling has led to significant increases in demand for high quality gathering pipeline systems. Recognizing that the U.S. Department of Transportation's Pipeline and Hazardous Materials Safety Administration (PHMSA) is considering regulatory alternatives related to gathering lines, PPI encourages federal policymakers to promulgate a federal rule to provide consistency and avoid conflicting sets of state and local requirements. Further, it is recommended that since these systems are located in rural areas oil and gas gathering pipelines should be allowed to operate at conditions that are within accepted safe design limits for these products, but may exceed the current Federal code limitations for highly populated areas. This will enable these systems to take advantage of the performance attributes of these piping systems – such as resistance to corrosion and fatigue – which enhance the overall long-term operating safety of today's gathering systems.

Background

Gas gathering lines were traditionally small-diameter pipelines designed to transport oil and natural gas from the wellhead to the processing plant or to separation facilities and then in to larger mainline pipelines for transport to local distribution facilities. Earlier gathering lines were much smaller and operated at lower pressures than transmission and even some distribution lines.

Hydraulic fracturing (fracking), combined with the horizontal directional drilling technology, triggered the U.S. drilling boom and has led to high demand for facilities that can accommodate the higher volumes and pressures of the oil and gas extracted out of these wells. For example, the pipelines being installed in shale plays such as the Marcellus, Utica, Barnett, and Bakken are generally much larger in diameter and are operating at higher pressure than traditional rural gathering lines, thereby increasing the concern for safety of the environment and people near operations.

Polyethylene, polyamides, and spoolable composite piping have demonstrated significant performance advantages and are corrosion and fatigue resistant. They are currently used in many gathering systems across the country. Federal and state policy should ensure ample opportunity for these products to continue to transport gas and oil from wellheads to mainline facilities in a safe and environmentally sound manner.

According to the Interstate Natural Gas Association of America (INGAA), the number of miles of gathering lines is expected to almost double to 405,000 by 2020. By 2035 about 654,000 miles are expected to be in place. PPI encourages federal policymakers to provide needed clarity by developing a consistent federal rule subject to operation of gas and oil gathering lines, and allow contemporary plastic piping and spoolable composites with the capability to operate at pressures needed to safely meet rising demand.