PHMSA To Establish National Standards For Higher MAOP

The Pipeline and Hazardous Materials Safety Administration (PHMSA) issued a proposed rule which would allow gas transmission lines that meet certain standards to operate at higher maximum allowable operating pressure (MAOP) than are currently allowable. The greater latitude would only be extended to pipelines posing a low safety risk based on location, materials and construction. Higher MAOPs support energy conservation and greater throughput.

The PHMSA has been granting "special permits" to individual pipelines since 2006 for operation at higher than otherwise allowed MAOPs. The first three were granted to Maritime & Northeast, Alliance and Rockies Express, all on July 11, 2006. The first two were for sections in operation for about five years and, in the case of Rockies, for a new pipeline. Since then, there have been nine other applications, mostly for new pipelines, many of which are still pending. All of these special permit applications since 2006 have been considered on a case-by-case basis, and PHMSA has imposed tougher safety requirements on the approved applicants.

Rick Kuprewicz, president, Accufacts Inc., who has worked for the Pipeline Safety Trust (an environmental group) and various transmission companies, says, "the vast majority of the special permit applications I have reviewed appear to be technically sound. People are doing their homework."

The PHMSA wants to take the requirements for these special permits and codify them in a federal regulation. That is because the agency feels that the gas transmission MAOP limits, which have been in place since 1970, are woefully out of date given advances in manufacturing, metallurgy, testing and assessment tools and standards. Currently, the MAOP for sparsely populated Class 1 locations is a maximum of 72 percent of the specified minimum yield strength (SMYS) of the steel. The operating pressures in more populated Class 2 and Class 3 locations are limited to 60 and 50 percent of SMYS, respectively. But since 1990, the American Society of Mechanical Engineers has had in its B31.8 Code that pipelines could operate safely at stress levels up to 80 percent of SMYS.

The requirements PHMSA expects to establish for this "higher MAOP" program will include a process for managing the life cycle of a pipeline operating at a higher stress level. Integrity management focuses on managing and extending the service life of the pipeline. Life-cycle management goes beyond the operations and maintenance practices, including integrity management, to address steel production, pipeline manufacture, pipeline design and installation. Companies applying for participation in this new program would have to certify their compliance with the higher design, material and manufacturing standards; and PHMSA would ostensibly examine that certification to assure its accuracy.

Congress Wants To Ease Way For CO_2 Pipelines

Support is building in Congress to establish a coherent federal policy toward permitting of interstate carbon dioxide-carrying pipelines. The drive to lay the groundwork for approval of a much larger network than the existing 4,000 miles of generally unconnected CO_2 pipelines has to do with the almost certain passage of legislation limiting emissions of greenhouse gases from coal-using utilities, automobiles, manufacturing facilities and other sources.

The idea is for manufacturing facilities and especially coal-burning utilities to "save" the CO_2 they generate, move it to a underground storage cavern, and then via pipeline, to businesses that can use the gas. For example, currently CO_2 is carried to the sites of oil and gas exploration where it is used to help pump out the oil and gas. Several pipelines delivering CO_2 for enhanced oil recovery in the Permian basin of west Texas are interconnected at Denver City, where CO_2 can be transferred from one pipeline to another. The other CO_2 pipeline systems in Wyoming, North Dakota, Oklahoma and Mississippi are not connected to the Permian basin pipeline system or to each other.

The Carbon Dioxide Pipeline Study Act (S. 2144) is sponsored by Sen. Norm Coleman (R-MN) and backed by a bi-partisan group of senators, including some members of the Energy Committee, which has jurisdiction over the bill. The legislation would require a number of federal agencies to report on any technical, siting, financing or regulatory barriers that might prevent or impede the development of a carbon dioxide pipeline industry.

PHMSA already regulates the 4,000 miles of CO_2 pipeline, of which 66 percent are interstate with the remaining 34 percent classified as intrastate. "The primary safety issue with transporting CO_2 is asphyxiation caused by a leak in a pipeline," says Ronald Evans, senior vice president reservoir engineering, Denbury Resources Inc. "Although there have been a few accidents, releases and leaks reported, none of the dozen leaks that occurred from 1986 to 2006 resulted in significant injury." That safety record, and the role CO_2 pipelines would place in reducing greenhouse gas emissions, is why environmental groups like Environmental Defense support the Coleman bill, and, presumably expansion of the CO_2 pipeline network.

MMS Threatens Regulatory Takeover Of Some Underwater Pipelines

The U.S. Department of Interior wants to impose tough new regulations on offshore right-of-way (ROW) pipelines which are currently regulated by the Department of Transportation. The 14,000 miles of ROW pipelines account for about 42 percent of the total 33,000 miles of pipe in the Gulf of Mexico, Atlantic, Pacific and in Alaska, all four areas making up the Outer Continental Shelf (OCS). The remaining 19,000 miles, mostly owned by producers, are regulated currently by the MMS.

In an interview, Alex Alvarado, chief, pipeline section for field operations in the Gulf of Mexico region, explains that the MMS pipeline safety regulations have not been updated in 20 years. That is the genesis of the proposed rule the MMS issued in October 2007, which has stirred considerable controversy in the pipeline industry. Numerous interstate companies who own OCS pipelines have written to the MMS complaining bitterly about numerous aspects of its proposal, especially its seeming intent to transfer authority for ROW pipelines to the MMS.

Alvarado replies that sometimes there is very little difference, operationally, between pipelines conventionally regulated by MMS and those regulated by the DOT's PHMSA. But he states that no decision has been made yet. However, regardless of whether the MMS takes over the 14,000 miles of PHMSA-regulated OCS pipeline, the lines owned by the producers will, without question, face substantially tightened regulation, including, for the first time, having to comply with an MMS integrity management program. In addition, the MMS will impose a host of new prescription design, construction and other requirements, many of them reflecting industry standards, on whatever OCS pipelines it ends up regulating.

Any number of specific provisions in the proposed rule has roiled the pipeline industry. D.B. Martin, senior vice president of operations for El Paso Corp., whose Southern Natural Gas and Tennessee Gas Pipeline subsidiaries operate 1,100 miles of pipeline in the OCS, argues that the MMS ought to restrict any new safety-oriented regulations to the underwater pipelines most at risk: risers and pipelines of less than six inches in diameter. He says the MMS proposed rule would add "new and costly regulations in such areas as integrity management, inspection, design, construction and operations and management." They "far exceed current industry practices and neither the technology nor infrastructure is available to sufficiently support implementation." ■