Since 1984 the Pipeline and Hazardous Materials Safety Administration (PHMSA) has been filing incident reports every time there is a leak in a natural gas pipeline. Leaks occur due to a variety of factors ­– lax maintenance, internal or external corrosion, excavation activities, earthquakes and floods.

With the commercial viability of fracking and the discovery of vast shale gas reservoirs in U.S., the application for new inter and intra state transmission pipelines has risen dramatically. By 2030, experts predict that the demand for natural gas will rise by at least 12 percent. Correspondingly, pipeline infrastructure will also have to expand in order to move the gas from the wells to the market and experts estimate that under low-growth conditions, 35,000 miles of additional pipelines will be added the network.

Handling the safety and integrity risks associated with this unprecedented growth in pipelines falls into the hands of PHMSA and state regulatory bodies like the Public Utilities Commission. But each state has different standards and often due to budget restrictions, they are understaffed. As a result, whether these bodies are prepared for the infrastructure requirements of the natural gas boom is debatable.

Fatalities and Injuries

Since 1984 there have been 432 deaths and 1871 injuries related to natural gas leaks. These fatalities and injuries usually occur when gas escapes from the pipeline, ignites and causes an explosion. The chart below shows Texas as having the most number of injuries but it should be noted that the state also has the most mileage of natural gas pipelines.

Leaks by State