

Natural Gas Pipeline Safety excerpts

...One must consider the age of the current pipeline, its exposure to corrosion, and the possibility of original construction using outdated, inferior welding techniques. A steel pipeline stores considerable potential energy, both as a consequence of the material carried (in this case, natural gas) and as something of a storage battery for electric energy. Putting a steel pipe underground releases some of that energy as corrosion. Additional stored potential energy, like a wound spring, wants to be released, often with catastrophic results as a result of the gas inside the pipeline. The current pipeline transports now AT LEAST 92,000 dth/day (dekatherms/day). Add that to the proposed 112,000 dth/day of this project and one arrives at 204,000 dth/day. Obviously, corrosion affects Maximum Operating Pressure since metal corrosion equals overall metal loss. The pipeline wall thickness will certainly DECREASE over time thereby making the pipeline susceptible to an increased potential for explosion based on the calculations of Barlow's Formula. Therefore, it is only logical that the Maximum Safe Pressure must decrease over time...

...Pipeline accidents have been recorded across the US, all with deaths and widespread property destruction. From 1986 to 2012 (the last year data is available to the public), New York ranked as the #13 state for pipeline accidents with 139 incidents, 29 deaths, 100 injuries, and over 72.5 million dollars in property damages. Increasingly, accidents in New York are attributed to "miscellaneous or unknown cause" or to "corrosion"...

...There are over 30 known toxins emitted during the process of shale gas pipeline distribution. Specific known emitted toxins such as benzene have incredibly negative consequences from long-term exposure. For example, benzene is a known cause of bone marrow failure. There is substantial quantities of epidemiologic, clinical, and laboratory data link benzene to aplastic anemia, acute leukemia, and bone marrow abnormalities. The US Department of Health and Human Services (DHHS) classifies benzene as a human carcinogen. The specific hematologic malignancies that benzene is associated with include: acute myeloid leukemia (AML), aplastic anemia, myelodysplastic syndrome (MDS), acute lymphoblastic leukemia (ALL), and chronic myeloid leukemia (CML). Even the American Petroleum Institute (API) stated as early as 1948 that "it is generally considered that the only absolutely safe concentration for benzene is zero."...

...Another chemical emission is styrene. Styrene is regarded as a "hazardous chemical", especially in case of eye contact, but also in case of skin contact, of ingestion and of inhalation, according to several sources. Styrene is largely metabolized into styrene oxide in humans and is considered toxic, mutagenic, and possibly carcinogenic. The U.S. Environmental Protection Agency (EPA) has described styrene to be "a suspected toxin to the gastrointestinal tract, kidney, and respiratory system, among others." On 10 June 2011, the U.S. National Toxicology Program has described styrene as "reasonably anticipated to be a human carcinogen"...

...These are only some of the known hazardous chemicals released into the surrounding area during shale gas pipeline transmission. Other chemicals and compounds released include 1,2,4-Trimethyl Benzene, Chlorobenzene, Diethyl Benzene, Xylene, Ethane, Isobutane, Methane, Propylene, Carbon Monoxide, and Sulfur Dioxide...