

Description:

Guidelines for Chemical Transportation Risk Analysis was published in 1995 and provides general guidance on how to assess risks associated with the movement of potentially hazardous materials, including the use of pipelines for the movement of these materials. This proposed project would look to both update the approaches and methodologies presented in this earlier publication, as well as greatly expand on the specific topic of pipeline risk assessment and related best practices. For example, this publication would go into issues such as the different failure modes associated with pipelines and the approaches that could be applied to address these different threats.

In 2008, a second edition to the 1995 publication *Guidelines for Chemical Transportation Risk Analysis* was published: *Guidelines for Chemical Transportation Safety, Security, and Risk Management*. This second edition expanded into security issues and the roles various parties have within the risk management framework associated with the transport of potentially hazardous materials. In general, this second edition was viewed as additive to the original first edition, with the intent being for users to work with both publications when looking at transportation related risks. The proposed project, while very much touching on risk management, would focus on pipeline issues and provide further clarity as to how to apply both of these books specifically to pipelines and related infrastructure.

Pipelines represent an interesting challenge for the processing industries in that pipelines are often the safest and most economical way to move materials from one location to another. Yet, at the same time, pipelines represent a potential hazard for those individuals living adjacent to their routing. As such, the management of societal risk (and related perceptions) becomes a very critical matter for the use of

existing pipelines and a critical issue in the construction of new pipelines. Unlike processing facilities, where risks to the public can be managed through buffer zones, security practices, and array of other controls, pipeline risks can be more difficult to manage as the public is often unrestricted relative to the location of pipelines. As such, potential consequences to the public cannot always be eliminated and the frequencies of such consequences need to be aggressively yet reasonably managed. In 2010, a natural gas pipeline exploded in San Bruno, a suburb of San Francisco, involving a 30-inch diameter pipeline. The resulting death toll was 8 people. This incident highlighted how pipelines operating in the public space can result in consequences to those individuals not working directly within the processing industries.

This project will draw on the expertise of leading member companies within the CCPS to develop broad guidance as to how to assess and manage risks associated with pipelines. The project will be run out of Calgary, Canada where there is a cluster of leading organizations in the management of pipeline risk. At the same time, participation in this project will not be limited to participants from within the Calgary area. It is hoped that member companies will, where possible, provide local expertise, while provisions will be made for other individuals to participate by phone. It is hoped that by having a local core team that much of the work can be completed face-to-face delivering a strong and well thought through product that will be beneficial to all CCPS members when assessing pipeline related risks.