Dispersion modeling and determination of impact zones for CO_2 pipelines

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The Skylark project aims to improve our understanding of the risks associated with pipeline transport of carbon dioxide (CO_2) by undertaking a program of large-scale CO_2 release experiments and wind tunnel trials. These experiments will be used to generate validation data for a range of different dispersion models that can be used to assess risks along the route of CO_2 pipelines. The Skylark experiments will also be used as an opportunity to train first responders and to inform emergency response plans. The project is due to start in 2024 and run for three years. This presentation at the API pipelines conference will describe the Skylark project and discuss how dispersion models may be used in the future to define impact zones for CO_2 pipelines.

*Speaker biography

Simon Gant is a Technical Fellow in the Fluid Dynamics Team at the UK Health and Safety Executive Science & Research Centre. He's a chartered mechanical engineer and has a PhD in Computational Fluid Dynamics from the University of Manchester. Simon has worked at HSE for 19 years, including contributions to the Buncefield incident investigation and several CO_2 pipeline research projects. His main technical specialism is in dispersion of flammable and toxic gases. Current projects primarily involve clean energy topics of hydrogen, ammonia and CO_2. Simon is also chair of the Atmospheric Dispersion Modelling Liaison Committee www.admlc.com.