

Abstract for the 29th Annual George Mason University Conference on Atmospheric Transport and Dispersion Modeling, 24-26 June 2025, Fairfax, Virginia, USA.

Recent Atmospheric Dispersion Modelling Research Activities at HSE

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This presentation will provide an overview of recent atmospheric dispersion modelling research activities at HSE, including:

- Jack Rabbit III: a brief status update on the model inter-comparison exercise that used data from the Desert Tortoise and FLADIS pressure-liquefied ammonia release trials
- Evaluation of the latest version of the DRIFT dispersion model
- Summary of HSE's contributions to the "CBRN Modelling of Sources and Agent Fate" (MODISAFE) project
- Validation of models for dispersion of carbon dioxide in complex terrain: the Skylark project
- Research on spills of refrigerated liquid ammonia onto water: the "Ammonia Response in Sea Emergencies" (ARISE) and SafeAm projects

It will discuss potential future research topics, such as analysis of catastrophic failure of vessels storing either liquid hydrogen or liquid carbon dioxide.

Recent and future planned activities of the Atmospheric Dispersion Modelling Liaison Committee (ADMLC) will also be presented.

HSE would like to give this presentation online via Teams/Zoom, not in-person.

Acknowledgements

The contributions by HSE staff to this work were funded by HSE. The contents, including any opinions and/or conclusions expressed, are those of the authors alone and do not necessarily reflect HSE policy.

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