

Air Pollution 2026 Conference

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Research on Net Zero at the Health and Safety Executive

The Health and Safety Executive (HSE) is Britain's national regulator for workplace health and safety. Its mission is to prevent work-related death, injury and ill health. At the HSE Science and Research Centre in Buxton, there is an active programme of research on safety-related topics associated with Net Zero. This includes:

- Liquid and gaseous hydrogen release experiments, including dispersion, fire and explosion tests
- Carbon dioxide release experiments
- Battery abuse testing, including measurements of emissions from battery fires
- Modelling to support large-scale ammonia release experiments

The aim of this talk at the Air Pollution 2026 conference will be to provide an overview of HSE's scientific research on these topics, with a focus on exploring potential synergies with current research interests in air pollution. This may include, for example, potential future collaborations between HSE and organisations interested in monitoring emissions from hydrogen venting and flaring operations, and/or emissions from battery fires. There may be opportunities as part of the trials conducted by HSE to deploy sensors to measure quantities that would help to characterise emission sources for air pollution models. HSE is keen to present a summary of its current and future research plans and to have an open discussion with attendees at the conference about how its safety-related research can provide useful data to address research needs in the field of air pollution.

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