

HSE publishes new Science Review

A human cough simulator to test the effectiveness of face shield protection during the pandemic, reducing the risk of the transmission of COVID to delivery drivers and gas explosion tests in a life size replica house are just some of the studies scientists working for the Health and Safety Executive (HSE) have completed in the last 12 months.

All three are listed in HSE's annual science review, which has been published today.

Using real life work cases as examples, the publication focuses on ways science and evidence is being used to protect people and places, helping everyone lead safer and healthier lives.

The annual review illustrates the mix of activities that has helped to ensure that HSE's response to the Covid pandemic was informed by the best available evidence. In addition, it has also provided information that has helped HSE with evidence that was needed as an enabling regulator, and secure justice against those who breach the law.

This includes:

- Reducing work-related ill health: Investigation of COVID-19 in the workplace – outbreaks, mitigation measures, transmission – incorporating work from HSE's leadership of 'PROTECT' (one of the UK's National Core studies for COVID)
- Building Safety: Preliminary identification of potential serious incident scenarios for high-rise buildings
- Enabling industry to innovate safely: supporting the move towards net zero by supporting and enabling a safe transition to hydrogen in the existing gas network

The review also highlights the range of studies HSE scientists are working on to protect people and places by managing workplace health and safety risks and helping to maintaining Great Britain's record as one of the safest countries to work in.

This includes:

- Chemical regulation, enabling the safe and sustainable use of chemicals: Assessing the toxicity, hazards and risks of chemicals in order to protect human health, and new methods to monitor occupational exposure to chemicals
- Investigation of ignition of flammable mists
- Providing evidence to underpin effective working practices in the asbestos removal industry

The review shows how HSE brings people and organisations together, sharing

knowledge, expertise and data, to make a real impact on reducing death, ill health and injury.

This includes:

- A multi-centre European human biomonitoring study
- The future of health and safety in advanced manufacturing
- Developing a framework for socio-economic impact data management in India

HSE's Chief Scientific Adviser and Director of Research, Professor Andrew Curran, said: "I'm extremely proud that our scientists, engineers, analysts and clinicians have continued to deliver a world-class programme of work.

"This is aligned to the policy and regulatory needs of HSE to protect people and places and helps ensure that Great Britain is one of the safest places to work anywhere in the world."

The HSE Annual Science Review is available at [HSE – Science, engineering and evidence](#)

Notes to editors:

1. The Health and Safety Executive (HSE) is Britain's national regulator for workplace health and safety. We prevent work-related death, injury and ill health through regulatory actions that range from influencing behaviours across whole industry sectors through to targeted interventions on individual businesses. These activities are supported by globally recognised scientific expertise. www.hse.gov.uk
2. HSE news releases are available at <http://press.hse.gov.uk>