

# Scientist who played a key role in the pandemic response is appointed chair of a new HSE committee



Cath Noakes, picture courtesy of Leeds University

A leading scientist who played an important role in Britain's response to the pandemic has been appointed chair of a new science committee.

Professor Cath Noakes led a sub-group of SAGE (UK Scientific Advisory Group for Emergencies) during the COVID-19 crisis. She will now chair a new committee that will offer assurance to Great Britain's workplace regulator the Health and Safety Executive (HSE).

Professor Noakes, who is professor of Environmental Engineering for Buildings at the University of Leeds, has a background in ventilation, air quality, and infection control.

She will lead the new Science Quality Assurance Group (SQAG) at HSE, which will provide the workplace regulator with independent assurance on the relevance and quality of its scientific research. The advisory group will ensure important research into workplace health and safety is relevant, robust, and fit for the future.

During the COVID-19 pandemic, Professor Noakes co-chaired the Environment and Modelling sub-group for SAGE. She also advised the NHS, the World Health Organisation and several government departments. She was awarded an OBE for her services to the pandemic in 2020.

Professor Cath Noakes said: "It's a real honour to be appointed to this role as chair of a new committee that I believe can play an important part in ensuring science-based evidence used to protect people and places is of the highest quality.

"I have had the pleasure of seeing at first hand HSE's scientific expertise being put to full use during the pandemic ranging from fundamental studies on transmission through to the production of information videos on ventilation that helped inform workplaces of good practice in stopping the spread of the

virus.

“External experts drawn from relevant science and engineering disciplines, who are recognised as leaders in their fields, will now be asked to join the group which I’m privileged to lead.”

Chair of HSE, Sarah Newton, added: “Professor Noakes brings with her a wealth of scientific experience and her expertise and knowledge is a perfect fit as chair of our new committee.

“The newly formed Science Quality Assurance Group will consider how science and evidence delivered by HSE helps to maintain Great Britain’s record as one of the safest countries to work in while supporting our 10-year strategy. We look forward to working with the group and welcome Cath as chair.”

The Science Quality Assurance Group will have 12 members who will be independent, external experts drawn from relevant science and engineering disciplines. Members will be organised into four subgroups. Each subgroup will review scientific research carried out to support one or more of HSE’s strategic objectives in detail.

The four subgroups will be:

- Health and Safety
- Net Zero
- Chemicals Safety
- Buildings Safety

HSE is currently inviting applications for Independent Members of its new Science Quality Assurance Group (SQAG). To find out more click [here](#).

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#### **Cath Noakes background information:**

Professor Noakes is a chartered mechanical engineer, with a background in fluid dynamics. Her expertise is in building physics and environmental engineering, and she has led research into ventilation, indoor air quality and infection control in the built environment.

She joined the School of Civil Engineering at University of Leeds in 2002 as a postdoctoral researcher modelling air disinfection systems and was later appointed as a lecturer in 2007 and then promoted to Reader in 2010 and Chair in 2014.

Professor Noakes was Director of the Pathogen Control Engineering (PACE) research institute 2010-2014, and Director of Research and Innovation for the School of Civil Engineering 2014-2020. She is currently Deputy Director of Leeds Institute for Fluid Dynamics and Co-Director for the EPSRC Centre for Doctoral Training in Fluid Dynamics.

During the COVID-19 pandemic she co-chaired the Environment and Modelling sub-group for the UK Scientific Advisory Group for Emergencies (SAGE) and

contributed to multiple advisory groups and initiatives through IMechE, CIBSE, the Royal Academy of Engineering, the Academy of Medical Sciences, WHO, the NHS and several government departments.

She was Faculty of Engineering Athena Swan Lead 2014-2017 and led a successful Silver Athena Swan submission covering all five schools in the faculty. She was chair of the University Women at Leeds network 2013-2017 and in December 2021 was one of the guest lecturers in the Royal Institution Christmas Lectures.

Awards and professional recognition:

2022 – Honorary Fellow, Chartered Institution of Building Services Engineers (CIBSE)

2021 – Fellow of the Royal Academy of Engineering

2020 – OBE for Services to the COVID-19 Pandemic

2020 – Royal Academy of Engineering Presidents Special Award for Pandemic Service

2018 – Academy of Fellows, International Society for Indoor Air Quality (ISIAQ)

2016 – University of Leeds, Women of Achievement Award

2014 – Recipient of IMechE Construction and Building Services Division Prize

2014 – Fellow of Institution of Mechanical Engineers (FIMechE)

2013 – Fellow of Institute of Healthcare Engineering and Estates Management (FIHEEM)

**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](http://www.hse.gov.uk)
2. HSE news releases are available at: <http://press.hse.gov.uk>

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## [Chemicals company fined after](#)

# releasing cloud of chlorine gas into factory

A chemicals company has been fined after releasing a cloud of toxic chlorine gas that spread through its factory, yard and surrounding area resulting in staff needing hospital treatment and significant damage to the factory.

On 12 June 2019, Wiltshire company GEA Farm Technologies (UK) Ltd mistakenly mixed an Intermediate Bulk Container (IBC) containing approximately 700 kg of concentrated sulphuric acid into a mixing vessel which already contained 1,600 litres of sodium hypochlorite solution.

The chemicals reacted releasing a large cloud of toxic chlorine gas, which CCTV footage showed as it permeated the factory and surrounding area. There was no clear evacuation plan for workers caught on-site, with several taken to hospital with breathing difficulties – fortunately no one suffered long-term effects.

A Health and Safety Executive (HSE) investigation found the incident happened because a dedicated mixing plant had not been brought back into service after maintenance work, and the company had failed to introduce effective records management for the temporary manual system.

GEA Farm Technologies (UK) Ltd, based on Watery Lane, Warminster, Wiltshire pleaded guilty to breaching Section 2(1) of the Health and Safety at Work etc. Act 1974 and were fined £40,000 and ordered to pay costs of £22,000 at Basingstoke Magistrates' Court on 4 October 2022.

Speaking after the hearing, HSE Inspector, Malcolm Whyatt, said: "In this case several workers were put at risk from a cloud of chlorine gas which drifted uncontrolled through their workplace.

"The company had previously designed their system to eliminate the possibility of human error, by reverting to a manual process they created a situation where mixing incompatible chemicals was possible. Chlorine can have severe health effects at very low levels, and they were fortunate that no-one was more seriously injured."

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2. More about the legislation referred to in this case can be found at: [legislation.gov.uk/](https://www.legislation.gov.uk/)

3. More information about working with chemicals can be found at: [Chemicals at work \(hse.gov.uk\)](https://www.hse.gov.uk/chemicals-at-work/)
  4. HSE news releases are available at: <http://press.hse.gov.uk>
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## [Time to register for HSE's Health and Work Conference 2022](#)

The Health and Safety Executive (HSE) has announced the date for this year's Health and Work Conference, with the free, interactive, event taking place on 15 November 2022. [Registrations](#) for the virtual all-day event are now open.

Building on the success of last year's conference, which saw huge demand, HSE has increased the capacity five-fold to provide 5,000 spaces for delegates.

The conference is part of HSE's approach to inspire and promote better prevention, management and control of the common risks and causes of work-related ill-health across Great Britain.

At the conference HSE will unveil how it is supporting the government's response to the Health is Everyone's Business (HiEB) consultation, as well as discussions on topics including work related stress and mental health, occupational health, musculoskeletal disorders, and occupational lung disease.

Delegates at the event will see how health and work is evolving not just in response to the pandemic, but also around the actions we need to take collectively as employers, employees, regulators and others to prevent harm caused by work-related ill-health.

Ali Wellens, HSE's head of health and work branch, said: "Health in the workplace needs to be a priority for everyone.

"This conference is a unique opportunity to engage with HSE's regulatory inspectors, scientists and health topic specialists.

"There will also be the chance to connect with peers and delve deeper into the topics that are of interest to you via a selection of elective workshops on priority areas of health and work.

"The day will include discussions around work related stress and mental health, occupational health, musculoskeletal disorders, occupational lung disease and COSHH and much more."

Spaces are limited, so please [register](#) for the Health and Work Conference 2022 today.

For more information on HSE and its health and work priorities visit

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2. HSE news releases are available at <http://press.hse.gov.uk>
3. To view the full conference agenda click [here](#)

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## [Worker hurt falling from gantry – company fined £27,000](#)

A refrigeration company has been fined £27,000 after a worker sustained significant injuries when he fell from an incomplete gantry.

GEA Refrigeration UK Ltd was replacing a cooler unit located on a gantry 10m above the warehouse floor at an Iceland depot in Swindon on 1 February 2017.

This required a section of the gantry floor to be removed. A GEA employee fell 2.5 metres through the gap created by this removal and on to a cherry picker, suffering fractured ribs and internal injuries.

An investigation by the Health and Safety Executive (HSE) found the company had failed to properly plan, co-ordinate and supervise the work, including the removal of the gantry floor to ensure the work was carried out in a safe manner to control the risks of falls.

GEA Refrigeration UK Ltd, of Ludgate Hill, London, pleaded guilty to breaching Section 4(1) of the Work at Height Regulations 2015, and was fined £27,000 and ordered to pay £35,000 costs and a victim surcharge of £170 at Bristol Crown Court on 30 September 2022.

Speaking after the hearing, HSE inspector Leo Diez said: "This incident could have been avoided by identifying and implementing effective control measures and safe working practices.

"Falls from height remain one of the most common causes of work-related injury and fatalities and the risks associated with working at height are well known."

In his victim personal statement, the injured worker said: "The effect of the accident on my personal and work life has been huge and has had a lasting effect."

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  2. More about the legislation referred to in this case can be found at: [legislation.gov.uk/](http://legislation.gov.uk/)
  3. Guidance on working at height can be found here: [Work at height – HSE](#)
  4. HSE news releases are available at <http://press.hse.gov.uk>
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## [Company fined for workers' excessive radiation exposure](#)

A company which provides diagnostic imaging services, and its radiopharmaceutical subsidiary company, have been given six-figure fines following incidents at two sites in which employees were exposed to radiation levels in excess of the legal annual dose limit.

On 25 March 2019, a vial of a radioactive substance (FDG) leaked after it was installed into a shielded dispensing pot in the dispensing laboratory of Alliance Medical Limited's (AML) Positron emission tomography-computed tomography (PET-CT) facility at St James's University Hospital in Leeds.

This resulted in two members of staff becoming contaminated with skin doses in excess of the annual dose limit as defined by the Ionising Radiations Regulations 2017.

In a second incident, on 15 November 2019, the same radioactive substance was unknowingly handled during the production process at the Alliance Medical Radiopharmacy Limited (AMRL) facility at Keele University Science Park in Staffordshire.

Consequently, a member of staff was contaminated with a skin dose in excess of the annual dose limit as defined by the Ionising Radiations Regulations 2017.

An investigation by Health and Safety Executive (HSE) into the incident at the AML Leeds PET-CT centre found that training and instruction was inadequate and supervision below an acceptable standard. Staff were not made fully aware of the localised instructions and were using personal protective equipment (PPE) unsuitable for work with radioactive material.

A separate investigation by HSE found that at AMRL's facility at Keele University Science Park, the radiation warning system associated with the particular production equipment was not operational at the time of the incident and had not undergone routine maintenance and testing at suitable intervals.

Alliance Medical Limited, based at Icen Centre, Warwick Technology Park, Warwick, Warwickshire pleaded guilty to breaches of the Ionising Radiations Regulations 2017, Regulations 12, 18(3), 18(4) and 18(5)a, and were fined £300,000 and ordered to pay costs of £11,382 at Leeds Magistrates' Court on 29 September 2022.

Alliance Medical Radiopharmacy Limited, also based at Icen Centre, Warwick Technology Park, Warwick, Warwickshire pleaded guilty to breaches of the Ionising Radiations Regulations 2017, Regulations 9(2)a, 11(1) and 12, and were fined £120,000 and ordered to pay costs of £11,382 in the same court on the same date.

After the hearing, HSE specialist inspector Elizabeth Reeves said: "The workers in both these incidents were exposed to levels of radiation which could potentially impact on their health in the future.

"Employers in the nuclear medicine sector must properly assess the risks to their employees and others and ensure all radiation doses are as low as reasonably practicable.

"Both these incidents could so easily have been avoided by simply carrying out the correct control measures and ensuring safe working practices were followed. Companies should be aware that HSE will not hesitate to take appropriate enforcement actions against those that fall below the required standards."

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2. More about the legislation referred to in this case can be found at: [L121 – Work with ionising radiation: Approved Code of Practice and guidance \(hse.gov.uk\)](http://hse.gov.uk/l121)
3. More information about working with ionising radiation can be found at: [Health and Safety: Ionising Radiation \(hse.gov.uk\)](http://hse.gov.uk/health-and-safety/ionising-radiation)
4. HSE news releases are available at <http://press.hse.gov.uk>