

# 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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## **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. [hse.gov.uk](https://www.hse.gov.uk)

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 [www.hse.gov.uk](http://www.hse.gov.uk)

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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/](https://www.legislation.gov.uk/)
3. Guidance on working at height can be found here: [Work at height – HSE](https://www.hse.gov.uk/work-at-height/)
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 Iceni 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 Iceni 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 \(hse.gov.uk\)](https://www.hse.gov.uk/l121)
3. More information about working with ionising radiation can be found at: [Health and Safety: Ionising Radiation \(hse.gov.uk\)](https://www.hse.gov.uk/health-safety/ionising-radiation)
4. HSE news releases are available at <http://press.hse.gov.uk>

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## Construction company fined after worker falls through fragile roof

A construction company from Leicestershire has been fined £80,000 after an employee suffered serious injuries falling through a fragile roof.

An employee of Cairns Heritage Homes Limited was carrying out a repair to the roof of Nottingham Recycling Limited on 1 August 2019 when he fell approximately 7m to the floor below.

A scaffold tower had been constructed for access to the roof but there were inadequate measures in place to ensure that the work would be completed safely.

The worker accessed the roof, attempting to devise his own ad-hoc working methods which included constructing a makeshift ladder/staging system from wooden planks.

An investigation by the Health and Safety Executive (HSE) found that Cairns Heritage Homes Limited had been contracted to repair the roof of the recycling plant while a 'bailing machine' was not being used.

Serious deficiencies in the planning and supervision of this work were identified together with the absence of a safe system of work.

There were insufficient measures to prevent a fall or minimise the distance or consequences of a fall such as safety netting. The makeshift staging provided by the employee was insufficient and failed to prevent a fall through the fragile roof panels resulting in them sustaining serious injuries.

Cairns Heritage Homes Limited, of Rectory Place, Old Parsonage Lane, Hoton, Loughborough, Leicestershire pleaded guilty to breaching Section 2(1) of the Health and Safety at Work etc Act 1974. They were fined £80,000 and ordered to pay costs of £9,981 at Nottingham Magistrates' Court on 28 September 2022.

Speaking after the hearing HSE Inspector Philip Gratton said: "Work on fragile roofs accounts for around a fifth of all fatal incidents that occur in the construction industry.

"Those in control of work on fragile roofs and other work at height have a responsibility to devise safe methods of work and to provide the necessary information, instruction, training, and supervision of their workers.

"If a suitable safe system of work had been in place prior to this incident, the life-changing injuries sustained by the employee could have been prevented."

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