

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.”

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
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>