

New guidance to protect those using gas and air safely in hospitals

New guidance to protect Britain's midwives from excessive nitrous oxide exposure has been published by the Health and Safety Executive (HSE).

The guidance is aimed at those responsible for ensuring the safety of workers and new mothers on maternity wards.

More commonly known as 'gas and air' when mixed with oxygen, nitrous oxide is an invisible gas used widely in healthcare, including for pain relief during childbirth.

Depending on how well exhaled gas from women in labour is controlled, midwives are at greater risk of exposure to higher levels of nitrous oxide due to the extensive time they spend working in labour rooms.

Over time, high levels of exposure can cause serious health effects including neurological problems and anaemia so it is important that levels are properly controlled.

The [recently published guidance](#) on how gas and air should be used safely has been developed by HSE together with maternity specialists in the NHS and is also relevant for professionals working in other parts of the healthcare sector, outside of maternity wards.

Nitrous oxide is subject to the [Control of Substances Hazardous to Health Regulations \(COSHH\)](#). It has a long-term workplace exposure limit of 100 ppm or 183 mg.m³ 8-hour time weighted average.

HSE advises that all hospitals using gas and air should carry out a COSHH risk assessment of each space in which it is used.

Helen Jones, head of HSE's health and public services sector said: "This is an essential piece of guidance.

"It should be taken on board by those responsible for managing health and safety in maternity units and for controlling the risks faced by staff who work with nitrous oxide. This should include consideration of workers who may be more vulnerable to the effects of exposure, such as those who are pregnant.

"Workers must also be fully consulted when it comes to monitoring how effective the control measures are, including how results are to be used.

"This will include how workers will be managed if results suggest their exposure should be reduced."

There are three main types of control systems used in maternity wards:

- a demand valve and mouthpiece or facemask used by the patient which captures exhaled breath, ensuring it is not released into the room.
- an associated extraction or scavenging system with an extraction unit located close to the breathing zone of the patient.
- general ventilation.

The demand valve and mouthpiece or facemask system is the most effective method of control. This is because the exhaled air is not released back into the room, as long as the mouthpiece or facemask is not removed before the patient exhales.

General ventilation is least effective because it:

- is located at a distance from the source (exhaled air)
- relies on the effectiveness of the room ventilation

It is important that exposure monitoring for any airborne contaminant includes the relevant contextual information for each sample taken. For nitrous oxide in a maternity department, this would include:

- the time midwives and student midwives, doctors and/or support staff attend to the delivery of a child or children (the actual exposure time, assessed over a representative number of days)
- an estimate of the level of demand by the expectant mother
- any controls present, for example scavenging equipment
- any other information that is likely to affect the exposure levels, such as movement of people or other activities in the room.

Further information:

1. [The Health and Safety Executive](#) (HSE) is Britain's national regulator for workplace health and safety. We are dedicated to protecting people and places, and helping everyone lead safer and healthier lives.
2. Further details on the latest [HSE news releases](#) is available.
3. Guidance on the [safe use of nitrous oxide in maternity units](#) is available.

Offshore industry reaps benefits from HSE inspection programme

- HSE programme has led to greater collaboration amongst offshore companies
- HSE inspected various North Sea production operators as they determined how PSLP was being adopted
- [A report on the PSLP inspection programme was published today \(Thursday](#)

[6 February 2025\)](#)

An inspection programme by Britain's workplace regulator has led to major safety improvements in the offshore industry.

The Health and Safety Executive (HSE) inspected 13 production operators between January 2022 and May 2024 as part of its Process Safety Leadership Principles (PSLP) programme.

In addition to their inspections, HSE inspectors were also engaging with senior leaders at offshore firms and industry groups as they determined how PSLP was being embedded across the United Kingdom Continental Shelf (UKCS).

The programme was launched by HSE after it noted a stagnating safety record in the offshore industry.

A report on the PSLP programme was published today (Thursday 6 February). To view the report, click [here](#).

Samantha Peace, director of Energy Division at HSE, said: "One of the main successes from our PSLP programme is that offshore companies are now engaging with one another on an unprecedented level. We found that firms were looking at themselves, identifying areas of improvement, engaging with other companies and above all, finding solutions."

This has led to developments in process safety leadership, Major Accident Hazard (MAH) management and performance, workforce engagement and utilisation of the Elected Safety Representatives.

While there were successes from the programme, HSE found cumulative risk continues to be a challenge amongst offshore companies, with the regulator also noting that the industry is prepared to accept a greater degradation of MAH barriers, rather than fixing them.

The programme also identified that a reduction in headcount has consequently led to a decrease in skills, knowledge and competency in the industry.

"Although the programme has now finished, we will continue to challenge industry," Samantha added.

"We will continue to question companies on how they are implementing PSLP and whether they are still collaborating with other firms on the same level we witnessed during the programme.

"We will also focus on the challenges we have identified in the industry, such as risk management and risk tolerance. It is not just down to HSE to develop safety standards in these areas however, companies will need to drive their own self-improvement. The PSLP programme shows that this can be done through collaboration, engagement and application – industry now needs to continue along this path."

Further information:

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 2. Further details on the latest [HSE news releases](#) is available.
 3. The PSLP inspection programme report can be found [here](#)
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[Farm partnership fined after man with 'heart of gold' killed by exploding tyre](#)

A Lancashire farm partnership has been fined £80,000 after a man with 'a heart of gold' died following an incident at a dairy farm in Hutton near Preston.

Joshua Hardman, who was just 23, suffered fatal head injuries as he helped to inflate a tractor tyre at the farm on 7 May 2021. The father of one from Longridge, was working as a farmhand at the farm run by W Hesketh and Sons.

At the time of the incident, Joshua had been helping one of the partners in the business, Bill Hesketh, re-seat and inflate a large tractor tyre. As Mr Hesketh inflated the inner tube within the tyre, it suddenly exploded and the catastrophic release of compressed air propelled the wheel rim into Joshua, causing traumatic head injuries. He was taken to hospital and underwent skull and brain surgeries, but he subsequently passed away on 11 June after a further deterioration in his condition.

- Tyre removal, replacement and inflation should only be tackled by competent staff and Health and Safety Executive (HSE) [guidance is available](#).

In a statement, his family said: "Joshua was a very loving, caring, kind and gentle person. He had a heart of gold.

"He was also an amazing dad, and it is heart-breaking that he will never reach his full potential in that role.

"His five-year-old daughter will miss out on a great deal of love and affection and the role he would have played in her life."



Joshua Hardman and his daughter Bonneigh

An investigation by the Health and Safety Executive (HSE) found that W Hesketh and Sons had failed to properly assess and plan this work activity. They also failed to identify and put in place the measures necessary to control the risks involved when inflating large commercial tyres.

The investigation also found that the risk of an explosion was much higher because the tyre, wheel rim and inner tube were all in a poorly maintained condition. A suitable and sufficient assessment had not been made to determine whether the damaged tyre, inner tube and wheel rim were suitable to be inflated safely.

W Hesketh and Sons, of Grange Lane, Hutton, Preston, pleaded guilty to breaching regulation 2(1) of the Health and Safety At Work Act 1974. They were fined £80,000 and ordered to pay £8,605 costs at a hearing at Preston Magistrates Court on 4 February 2025.

After the hearing, HSE inspector Anthony Banks said: "This was a tragic incident, and a much-loved young man has lost his life. It could have easily been avoided with the right controls in place.

"HSE would like to make all employers aware that, before they undertake the inflation of large commercial tyres, they need to have correctly assessed the risk and have in place the suitable controls for the task."

The prosecution was brought by HSE enforcement lawyer Gemma Zakrzewski and supported by paralegal officer Rebecca Foreman.

Further information:

1. [The Health and Safety Executive](#) (HSE) is Britain's national regulator for workplace health and safety. We are dedicated to protecting people and places, and helping everyone lead safer and healthier lives.
2. More information about the [legislation](#) referred to in this case is

available.

3. Further details on the latest [HSE news releases](#) is available.
4. HSE does not pass sentences, set guidelines or collect any fines imposed. Relevant sentencing guidelines must be followed unless the court is satisfied that it would be contrary to the interests of justice to do so. The sentencing guidelines for health and safety offences can be found [here](#).
5. HSE guidance on [working safely with tyres](#) is available.

Company fined for failures at waste and recycling centre

A company that operates several household waste and recycling centres in Wales has been fined for failing to protect workers and members of the public.

Sundorne Products (Llanidloes) Limited pleaded guilty to the failures identified at Llandrindod Wells Household Waste and Recycling Centre in Powys. The charges arose following an inspection by the Health and Safety Executive (HSE) on 6 October 2022.



A HSE inspector identified unrestricted access to the controls and to dangerous parts of the machines

A HSE inspector identified a risk of serious injury to both workers and the public. Action was taken to stop the use of three waste compactor machines due to there being unrestricted access to the controls and to dangerous parts of the machines, namely the compaction chambers.

HSE guidance, including information on the various safety hazards, is freely available on HSE's [waste management and recycling webpages](#).

Further enforcement action was taken to secure improvements in the management arrangements and improved control measures.



The failures were identified at Llandrindod Wells Household Waste and Recycling Centre in Powys

A subsequent HSE investigation identified that the risks associated with the compactors operation had not been adequately assessed and there was no clear instruction or training provided to workers. The pre-use checks were considered inadequate and there was no recognised safe method of clearing blockages within the compaction chambers.

Sundorne Products (Llanidloes) Limited of Potter House, Henfaes Lane, Welshpool, Powys, pleaded guilty to breaching Sections 2(1) and 3(1) of the Health and Safety at Work etc Act 1974. The company was fined £100,000 and ordered to pay costs of £10,077 at a hearing at Welshpool Magistrates Court on 28 January 2025.

Speaking after the hearing, HSE inspector Joe Boast said, “Those in control of work have a responsibility to devise safe methods of working and to provide the necessary information, instruction and training to their workers in the safe system of working. The charges extend to failings in respect of risks to the public”.

“Companies should be aware that HSE will not hesitate to take appropriate enforcement action against those that fall below the required standards.”

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England and Wales can be found [here](#) and for those in Scotland [here](#).

Sheffield skip hire boss avoids immediate spell behind bars

The director of a Sheffield-based skip hire company has avoided an immediate spell behind bars after being found guilty of multiple breaches of health and safety law.

Following an investigation and subsequent prosecution by the Health and Safety Executive (HSE), Jamie White, the director of M White (Skips) Limited, was given an eight month custodial sentence, suspended for a period of 12 months. His company was fined £65,000.

Both White and his company appeared at Sheffield Magistrates Court on 23 January 2025 to be sentenced, the same court where they had been found guilty of several charges brought by the HSE following a five day trial in October last year.



The piles of waste found by HSE inspectors at the company's site in Sheffield

HSE has detailed guidance on [waste management and recycling](#) including about how it should be safely [sorted and processed](#).

The court heard that HSE inspectors visited the company's site on Worthing Road in the Attercliffe area of Sheffield, on 8 August 2022, after receiving multiple reports of poor conditions both there and along the public highway. When inspectors arrived, they found skips loaded with waste material stacked along the public highway and piles of other waste preventing workers from safely moving around the site, as well as blocking access to welfare facilities, including the staff toilets.

Immediate action was taken by HSE, with prohibition notices being issued preventing any further stacking of the already loaded skips. However, a follow-up visit less than a month later found no improvements had been made – as well as evidence the enforcement action had been ignored.



HSE received multiple reports of poor conditions both there and along the public highway

Subsequent enquiries found the company did not hold Employers' Liability (Compulsory Insurance), a legal requirement for employers. Further prohibition notices were served, including the prevention of hand sorting of waste materials from skips on the public pavement due to the obvious risks to members of public trying to walk past.

The subsequent HSE investigation found there had been a steep decline in general health and safety standards at the firm, giving rise to significant risk to employees and members of the public. With no effective health and safety management and an apparent loss of control over general conditions, there had been no attempt to reduce the risk from hazards on site to safeguard employees. The company, and White, failed to comply with the law, despite enforcement notices being served requiring action to be taken.



Piles of waste prevented workers from safely moving around the site

M White (Skips) Limited of Worthing Road, Attercliffe, Sheffield pleaded guilty to non-compliance with three Prohibition notices and to breaching Sections 2(1) and 3(1) of the Health and Safety at Work etc. Act 1974, and also Section 1(1) of the Employers' Liability (Compulsory Insurance) Act 1969. The Company was fined £65,000 and ordered to pay £13,280 in costs at a

hearing at Sheffield Magistrates Court on 23 January 2025.

Jamie White, of Blonk Street Sheffield, Director of the company when HSE visited, pleaded guilty to non-compliance with two Prohibition notices and to breaching Sections 2(1) and 3(1) of the Health and Safety at Work etc. Act 1974 by virtue of Section 37(1), and also Section 1(1) of the Employers' Liability (Compulsory Insurance) Act 1969. He was given an eight month custodial sentence, suspended for 12 months, and must complete 150 hours of unpaid work. He was also disqualified as a company director for a period of three years and ordered to pay £13,280 in costs.

After the hearing the HSE inspector Laura Hunter said: "As the sole director, Jamie White also worked on the site and was fully aware of the poor conditions which his employees were subjected to.

"Full skips were deposited and stored on the public highway, with employees later needing to use the street to sort through waste materials when the site became inaccessible.

"By law, employers are required to insure against liability for injury or disease to their employees arising out of their employment – it is compulsory insurance. Mr White failed to arrange for his company to obtain it for his workers, despite HSE serving an enforcement notice legally requiring him to do so.

"Companies should ensure that they understand and follow health and safety laws and guidance and act responsibly to protect both their employees and the public from the activities under their control."

The HSE prosecution was brought by senior enforcement lawyer James Towey and enforcement lawyer Kate Harney, supported by paralegal officer Imogen Isaac.

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5. HSE guidance on [waste management and recycling](#) and about how it should be safely [sorted and processed](#) is available.
6. HSE guidance for employers on [Employers' Liability Insurance](#) is also available.