TOOLBOX TALK · HEALTH & SAFETY

Hot Works: *The Fire That Starts After You Leave*

Permits, fire watch and the hour after you finish. Why most hot works fires start once the tools are packed away.

Last reviewed: August 2026 · HSE · Fire Safety Order 2005 (England and Wales) · Fire (Scotland) Act 2005 · England, Scotland and Wales · ukworkrights.co.uk

In Northern Ireland, similar duties come from Northern Ireland's own health and safety law. Contact HSENI (Health and Safety Executive for Northern Ireland), not the HSE.

THE RISK

Why hot works cause major fires

- Hot works means **welding, cutting, grinding, brazing, soldering, hot air stripping and using open flame**
- Sparks from grinding and cutting can travel **ten metres or more** and stay hot enough to ignite
- Sparks can drop through **gaps, cable holes and floor voids** and land somewhere nobody is watching
- Heat conducts through metalwork and can ignite material **on the other side of a wall**
- Most hot works fires are discovered **after the work has finished**, from smouldering that took time to develop
- Hot works are one of the leading causes of **serious commercial and construction fires in the UK**
- Insurers frequently exclude cover where a permit system was not followed

THE FIRE USUALLY STARTS AFTER YOU'VE GONE

Smouldering material can take an hour or more to develop into a fire. That is exactly why the fire watch continues after the tools are packed away, not just during the work.

THE CONTROLS

Permit, prepare, watch

- **Avoid hot works where you can**, cold cutting, bolting or pre-fabrication removes the risk entirely
- Where unavoidable, work under a **hot works permit** issued by a competent person and valid for a defined time and place
- **Clear combustibles within at least ten metres**, or protect them with fire blankets and screens
- Check for **hidden risks**: voids, ducts, cavities, insulation, and what is on the far side of the surface
- **Isolate or protect detection systems** if needed, and remember to reinstate them
- Have the **right extinguisher immediately to hand** and someone who knows how to use it
- Maintain a **fire watch during the work and for a defined period after it stops**, commonly at least 60 minutes, longer for higher risk
- **Final check of the area** before leaving, including adjacent rooms and the floor below

THE PERMIT CLOSES WHEN THE WATCH ENDS

A permit is not finished when the welding stops. It closes when the fire watch has completed and someone competent has checked the area and signed it off.

YOUR RIGHTS

What you can insist on

- To work under a **proper permit system** rather than informal arrangements
- **Adequate time** to clear the area and set up protection before starting
- **Correct PPE** free of charge: eye and face protection, flame-resistant clothing, gloves
- **Fume control**: welding fume is a carcinogen and requires extraction, not just ventilation
- Not to be **left alone to do the fire watch and the work at the same time**
- To **stop work** where you reasonably believe there is serious and imminent danger (Employment Rights Act 1996 s.44 and s.100)

WELDING FUME IS NOW TREATED AS A CARCINOGEN

HSE strengthened its position on mild steel welding fume: all welding fume can cause cancer, and engineering controls such as local exhaust ventilation are required for indoor welding, with RPE where LEV cannot control it fully.

COMMON QUESTIONS

Frequently asked questions

Q How long should a fire watch last after hot works?

Practice varies with risk, but a minimum of 60 minutes after the work stops is common, and many permit systems require longer where combustibles or voids are involved. The permit should state the period, and the area should be re-checked before the permit is closed.

Q Do I need a permit for grinding?

Usually yes. Grinding produces high-energy sparks that travel and ignite, so most hot works permit systems cover grinding alongside welding and cutting. Check your site rules, but treat grinding as hot works unless you have been told otherwise in writing.

Q Is welding fume really dangerous?

Yes. HSE now takes the position that all welding fume, including from mild steel, can cause cancer. Indoor welding requires engineering controls such as local exhaust ventilation, with suitable respiratory protection where LEV cannot control exposure adequately.

FOR WHOEVER RUNS THIS TALK

Delivery notes & attendance record

Before you start

The message that changes behaviour is the fire watch. Most hot works fires are discovered well after the work finished, from smouldering that nobody stayed to spot. Insist on the post-work watch period as a hard rule.

Questions to ask the team

1. What hot works are planned today, and is there a permit for them?
2. What is combustible within ten metres of where you'll be working, including behind the wall?
3. Who is doing the fire watch, and for how long after the work stops?
4. Where is the nearest extinguisher, and is it the right type?

The law behind this talk

Regulatory Reform (Fire Safety) Order 2005 (England and Wales) and Fire (Scotland) Act 2005 (Scotland); Management of Health and Safety at Work Regulations 1999 reg. 3; Construction (Design and Management) Regulations 2015; Health and Safety at Work etc. Act 1974 s.2

Employers must give workers comprehensible information, instruction and training on the risks they face, Health and Safety at Work etc. Act 1974 s.2(2)(c) and Management of Health and Safety at Work Regulations 1999 reg. 10. Keep the record below as evidence that you did.

Attendance record

Topic	Hot Works: The Fire That Starts After You Leave
Date	
Site / location	
Delivered by	
Actions agreed	
Next talk due	

Attendees

Name	Signature

Use the Print handout button to print this record. General information only, not legal advice. This toolbox talk is generic material and is not a substitute for a suitable and sufficient risk assessment by a competent person. Employers remain responsible for their duties under the Health and Safety at Work etc. Act 1974 and the Management of Health and Safety at Work Regulations 1999.

FREE H&S GUIDES

Hot Works *free guide*

Get plain-English information on your rights and your employer's legal duties.

HSE: REPORT AN ISSUE
0300 003 1647
hse.gov.uk

ACAS
0300 123 1100
acas.org.uk

CITIZENS ADVICE (ENGLAND)
0800 144 8848
citizensadvice.org.uk

CITIZENS ADVICE (WALES)
0800 702 2020
citizensadvice.org.uk

CITIZENS ADVICE SCOTLAND
0800 028 1456
cas.org.uk

UK WORK RIGHTS
Hot Works
ukworkrights.co.uk/toolbox-hotworks.html

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OTHER WAYS TO GET HELP

Ways to contact Acas

- Helpline: 0300 123 1100, Monday to Friday, 8am to 6pm.
- Another language: call the helpline and ask for an interpreter. Acas says it can provide one straight away.
- Welsh: Acas can provide its services in Welsh if you ask.
- Cannot hear or speak on the phone: Relay UK, 18001 0300 123 1100, on the Relay UK app or a textphone. You type what you want to say and get text replies from the adviser.
- British Sign Language (BSL): call the helpline through the InterpretersLive! video relay service, in your browser or on the InterpretersLive! app. The interpreter calls Acas and translates between you and the adviser.
- If you cannot call the helpline (for example, you find it hard to speak on the phone, you are not in the UK, or you don't have enough phone credit), use the Acas accessibility form to ask for advice another way. Acas usually replies by email within 10 working days, by BSL or lip reading video call within 2 working days, or by phone within 5 working days. Acas reviews these requests Tuesday to Friday, 9am to 5pm.
- Early conciliation: if your case is already in conciliation, contact your conciliator. Their details are in your "Introducing Your Conciliator" email.
- Training, mediation support, collective conciliation or arbitration (not advice): Acas Training and Customer Services, 0300 123 1150, Monday to Friday, 9am to 5pm, or email events@acas.org.uk. Relay UK: 18001 0300 123 1150. You can ask for an interpreter or call through InterpretersLive!. To book a BSL interpreter in advance for any Acas service, email events@acas.org.uk or call 0300 123 1150.

OTHER WAYS TO GET HELP

Ways to contact Citizens Advice in England

- Adviceline: 0800 144 8848. Usually open Monday to Friday, 9am to 5pm, not on public holidays. Free from mobiles and landlines. At busy times you might wait up to an hour. If you call from a mobile you'll be asked for your postcode.
- Cannot hear or speak on the phone: Relay UK. Dial 18001 then 0800 144 8848, using the app or a textphone. There's no extra charge.
- Money or debt: debt helpline 0800 240 4420, Monday to Friday 9am to 8pm, Saturday 9.30am to 1pm, not on public holidays. Relay UK: 18001 then 0800 240 4420.
- Online chat with an adviser: debt problems (Monday to Friday 9am to 8pm, Saturday 9.30am to 1pm); claiming Universal Credit (Monday to Friday 8am to 6pm); energy bills or supply, consumer problems, or any other problem (Monday to Friday 9am to 5pm).
- Your local Citizens Advice: search by postcode or town on the Citizens Advice website. Most can only help if you live or work in their area.

OTHER WAYS TO GET HELP

Ways to contact Citizens Advice in Wales

- Advicelink: 0800 702 2020. Monday to Friday 8am to 7pm, Saturday 9am to 1pm, not on public holidays. Free from mobiles and landlines. At busy times you might wait up to an hour.
- Cannot hear or speak on the phone: Relay UK. Dial 18001 then 0800 702 2020, using the app or a textphone. There's no extra charge.
- Online chat with an adviser: usually Monday to Friday, 9am to 5pm.
- Your local Citizens Advice: search by postcode or town on the Citizens Advice website.

OTHER WAYS TO GET HELP

Ways to contact Citizens Advice in Scotland

- Free phone line to your local bureau: 0800 028 1456. Say the first part of your postcode and you'll be put through.
- British Sign Language (BSL): make a free BSL call to an adviser through the Contact Scotland BSL website or app (video relay interpreting on a computer, tablet or mobile). Contact Scotland BSL is open 24 hours a day, 7 days a week.
- Language or access needs: tell the bureau and they'll do their best to meet them.
- Applying for Universal Credit for the first time: Help to Claim helpline 0800 023 2581, Monday to Friday, 8am to 6pm, or webchat on the Citizens Advice Scotland website. There's also a BSL service for Universal Credit applications.
- Defined contribution pensions (aged 50 or over): Pension Wise, 0800 138 3944, or +44 20 3733 3495 from outside the UK.
- NHS complaints in Scotland: Patient Advice and Support Service (PASS), 0800 917 2127, Monday to Friday, 9am to 5pm.
- Gambling Support Service advice line: 0800 328 1131, Monday to Friday, 10am to 3pm.
- Your local bureau: find its contact details and opening times by postcode on the Citizens Advice Scotland website.
- If you cannot hear or speak on the phone, you can use Relay UK to make the call by typing. Use the free Relay UK app, or a textphone: dial 18001 first, then the number.

OTHER WAYS TO GET HELP

Ways to contact HSE

- Tell HSE about a health and safety issue: use the online form, or call 0300 003 1647 and HSE will fill it in for you. Building safety (Building Safety Regulator): 0300 790 6787.
- Ask HSE about health and safety, or reach a named person at HSE: use the online form, or call 0300 003 1747.
- Both lines: Monday and Tuesday 8.30am to 5pm, Wednesday 10am to 5pm, Thursday and Friday 8.30am to 5pm.
- Fatal and major injuries only: Incident Contact Centre, 0345 300 9923, Monday to Friday, 8.30am to 5pm. Report everything else online.
- Out of hours, only after a work-related death, a serious incident with several casualties, or one causing major disruption: duty officer, 0151 922 9235.
- Cannot hear or speak on the phone: HSE says it provides a text relay service for people who are D/deaf, hard of hearing or have a speech impairment.
- If you cannot hear or speak on the phone, you can use Relay UK to make the call by typing. Use the free Relay UK app, or a textphone: dial 18001 first, then the number.
- Website information in another format (accessible PDF, large print, easy read, audio or braille): use HSE's online contact form. HSE replies within 21 days.
- Other languages: HSE publishes translated information in many languages (hse.gov.uk/languages).

KEEP GOING

More free *toolbox talks*

TOOLBOX TALK

Fire Safety

ukworkrights.co.uk/toolbox-firesafety.html

TOOLBOX TALK

Confined Spaces

ukworkrights.co.uk/toolbox-confinedspaces.html

TOOLBOX TALK

Risk Assessment

ukworkrights.co.uk/toolbox-riskassessment.html

FREE GUIDE

Health and safety at work

ukworkrights.co.uk/guide-health-safety.html