

Acetylene Policy

The Acetylene Safety (England and Wales and Scotland) Regulations 2014 (ASR) are additional regulations to the Dangerous Substances and Exploding Atmosphere Regulations covering the safe use of acetylene. Acetylene gas poses an additional hazard to other flammable gases as it is also reactive. Under certain conditions, even in the absence of any air or oxygen, it can decompose explosively into its constituent elements, carbon and hydrogen such as when the acetylene cylinder is involved in a fire, or if a flashback from an acetylene flame travels back to the cylinder. The danger from acetylene cylinders is unique, because it persists for some time (24 hours or more) after the fire has been extinguished. Acetylene cylinder explosions are violent and extremely destructive, and they pose a special risk to the emergency services.

Within the University, acetylene is used for oxyacetylene cutting and welding and to a much lesser extent in chemical synthesis and in analytical instrumentation.

This Policy applies to and within all buildings across the University's campuses, including Gibbet Hill, Westwood and Wellesbourne. This Policy is supported by arrangements, instructions, and guidance on the safe use and storage of acetylene which are available on the University's Health and Safety web pages.

Under the provisions of Regulation 26, Safety Regulations and associated University Health and Safety Policy document, it is the duty of all staff, students and others working in the University to comply with this Policy, together with any other instructions, rules and guidance that may apply.

Core Principles

1. Acetylene cylinders are only to be used where there is no suitable alternative available.
2. Suitable and sufficient risk assessments must be made for any activity which uses acetylene which if not properly controlled might cause harm to people as result of fire and explosion.
3. The use of oxyacetylene cutting/welding units will require a 'Hot Work' Permit issued by the University Permits Office when the oxyacetylene unit is being used in spaces other than welders/braziers hearth. The permit will require a supporting risk assessment.
4. All portable oxyacetylene equipment must be returned to its storage location before the end of the working day.
5. All equipment using acetylene must be fitted with an appropriate regulator and flame arrestor. This includes oxyacetylene cutting/welding equipment.
6. Workspaces where acetylene is stored must be identified within the QuEMIS Hazards Module, and relevant hazard and risk information included within the module entry.
7. Appropriate signage or 'Notice Boards' will be displayed at the entrance to these workspaces.

8. Control measures will include, but not limited to: storage management procedures to ensure the cylinders remain within the statutory test date. All hoses, fittings and flame arrestors are subject to regular checks and records maintained.
9. All persons who use acetylene are trained in its safe use and the actions to take in the event of an emergency. Regular refresher training must be undertaken.
10. Records must be kept of all risk assessments undertaken, information and instruction provided and all checks and maintenance carried out on safety measures and equipment. Regular reviews will be undertaken to ensure the information etc, remains suitable.

Responsibilities

Heads of Departments are responsible for the implementation of this Policy with regard to the use and storage of explosives within their respective areas.

All staff within departments must comply with this Policy and the associated arrangements, instructions and guidance.

The Director of Health and Safety is responsible for advising on the standards and regulations that must be achieved in order to meet legal requirements; for keeping the University's Health and Safety website up to date with the related policy documents; and for ensuring that spot checks and audits are carried out to provide assurance that activities are being carried out in compliance with this Policy.

Review

This policy will be reviewed when any legal requirements change or at least once every three years.

Document Control			
Version Number	Date issued	Author	Update information
V1 05 03 18	05/03/18	John Phillips	Initial version of document
V1.1 28 07 22	01/08/22	Rebs Lawden	Review – Minor administrative changes
Owner: John Phillips, Director of H&S			Authorised By: Steering
Source Location: M:\SF\OCH 2006\Management System\04 Planning and Leadership (K)\02 Policy\02 Policies by Topic			Approval Date: 05/03/18
Published Location: https://www2.warwick.ac.uk/services/healthsafetywellbeing			Review Date: July 2025