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# FACT SHEET

No. 43

ENVIRONMENT, HEALTH & SAFETY INFORMATION FOR THE  
BERKELEY CAMPUS

## Welding and Flame Cutting Operations Fire Prevention and Suppression Procedures

If not properly controlled, welding and flame cutting operations present serious fire hazards that can lead to significant damage and/or loss of life. To ensure safety on campus and to comply with Cal/OSHA requirements for such operations, the University of California, Berkeley (UC Berkeley), has established standard procedures that apply on all UC Berkeley property.

### Work Performed in Shops and Other Designated Areas

Campus departments that perform or contract welding or flame cutting must designate approved firesafe areas (such as shops) in which this work is to be routinely conducted. Such areas must be maintained free of combustible materials and must be equipped with both portable fire extinguishers and fire alarm systems. Work performed within such designated areas does not require a job-specific welding-cutting permit.

### Work Performed Outside Designated Areas

When welding or cutting must be performed outside these designated areas, the work must be performed in accordance with the procedures outlined below. A Welding/Cutting Permit (Attachment 1), signed by a supervisor, is also necessary.

#### I. A departmental supervisor must:

- Inspect and approve the area and all equipment to be used (e.g., torches, manifolds, acetylene generators, and regulators or pressure-reducing valves) before welding or cutting is permitted. Determine if combustible materials are present or likely to be present in the work location, making it a hazardous area. If combustibles may be present, the supervisor must relocate the work to another area, have the combustibles moved to a safe distance from the work (at least 35 feet away), or shield the combustibles from ignition sources.
- Ensure that all cutters, welders, and their supervisors (including contractors) are trained in the safe operation of their equipment and in standard UC Berkeley fire prevention procedures.



- Alert all affected employees and contractors to the presence of flammable materials or other hazardous conditions in case they are not aware of them.
- Ensure that emergency communications systems, fire alarms, and extinguishers are functional and readily available at the site. When smoke generation may set off fire detection systems, arrange for the Physical Plant Campus Services to temporarily disable the system, and provide an alternate means of alerting others to a fire.
- Complete, sign, and post a Welding/Cutting Permit (Attachment 1), noting all precautions required for maintaining the area firesafe.

II. **The lead employee** (including contractor supervisors) who conducts welding or flame cutting operations must:

- Be responsible for the safe handling of the welding and/or cutting in accordance with these safety procedures and all precautions listed on the Welding/Cutting Permit.
- Wear, and ensure that other employees wear, all required personal protective equipment, including the proper welding/cutting eye protection and burn-resistant clothing such as welding leathers.
- Stop work and inform supervisor if conditions change.

III. **A Fire Watcher** is required in locations where welding or flame cutting might cause anything other than a minor fire or whenever combustible material must remain closer than 35 feet to the operation. (This can include wall or floor openings within a 35-foot radius that may expose combustible material in adjacent areas and metal partitions, walls, ceilings, or roofs where adjacent combustible material