



# Welding, Cutting, and Brazing (Hot Work)

Environmental Health and Safety



## I. Purpose

This program establishes the minimum safe working procedures and guidelines for welding, cutting, brazing, grinding, soldering, torch-applied roofing, and any other similar operation on Northwestern property. It also covers the control of ignition sources, such as spark-producing tools and devices in hazardous areas. These procedures are intended to protect life, health, and property from fire and the byproducts of combustion that can result from flame- or spark-producing equipment.

## II. Scope

This program applies to Northwestern employees, students, and contractors involved in the use of flame- or spark-producing equipment on Northwestern property. Reasonable diligence and effort must be made to avoid hot work, when feasible. This program does not apply to:

- A. Boilers and furnaces that are permanently installed,
- B. Bunsen burners and other flame operations in laboratories or spaces designed and supplied for this type of equipment,
- C. Chafing fuel for catering chafers,
- D. Electric soldering irons used for repairing electronics, and
- E. Stoves and other cooking operations.

## III. Definitions

- A. **Department with Hot Work Approval Responsibility** – A Northwestern department with qualified personnel who are responsible for reviewing and issuing hot work permits and ensuring hot work is performed in accordance with this program, within their area of responsibility.
- B. **Designated hot work areas** – Designated areas approved by Environmental Health and Safety (EHS) where hot work is performed routinely and do not require a daily hot work permit (see **Section VII**).
- C. **Fire watch** – An individual whose job is to watch for fire during and after hot work activities and extinguish them if possible or activate the fire alarm. The fire watch must have immediate access to appropriate fire extinguishers and be trained in the use of the equipment (see **Section IX**). The fire watch must be performed in accordance with **Section VI**.
- D. **Hot work** – Any temporary operation involving open flames or producing heat and/or sparks. This includes, but is not limited to welding, cutting, brazing, grinding, soldering, and torch-applied roofing.
- E. **Hot work high-risk areas** – Areas that pose an increased level of risk in comparison with other areas. Additional required precautions may be necessary when conducting hot work in these high-risk areas due to the increased likelihood or severity of a fire or explosion.

## IV. Responsibilities

- A. **Environmental Health and Safety (EHS)**
  - i. Review and revise this program as necessary.
  - ii. Provide paper hot work permits to departments, as necessary.
  - iii. Investigate hot work incidents (i.e., injuries, fires, and explosions) to determine root causes and corrective actions to prevent reoccurrences.

- iv. Provide guidance and consultation regarding this program.
- v. Review and approve "Designated Hot Work Areas" (see Section VII).

**B. Departments with Hot Work Approval Responsibility**

- i. Adhere to the requirements of this program.
- ii. Authorize and issue hot work permits within areas of responsibility, as necessary.
- iii. Prior to authorizing and using a hot work permit, inspect hot work and surrounding areas and verify:
  - a. No fire detection or fire suppression systems impairment.
  - b. No environmental conditions exist that could be hazardous.
  - c. No conflicts are anticipated with other work, equipment, systems, or community impact.
- iv. When hot work is complete each day:
  - a. Retrieve hot work permits (see Section 4).
  - b. Verify jobsites are left in a clean and safe state.

**C. Contractors and Departments Requesting Hot Work**

- i. Adhere to the requirements of this program.
- ii. Ensure that employees are trained

Contract 37-9

(t) 0.00399 (n) 545 (9) r 3 3 Bc 0004585a) - 0 d B d j p) T j D 1.0 7c 92-0068-9d(7) T j . 2







[Northwestern Contractor Safety Program](#)  
[Northwestern Hazard Communication](#)

## XII. Contact

For questions contact Environmental Health and Safety at [ehs@northwestern.edu](mailto:ehs@northwestern.edu) or (847) 467-6342.



