

Wellesley College Hot Work Policy (rev. July 2018)

Scope

This policy applies to all hot work operations at Wellesley College by employees, students and contractors. Hot work is defined as work involving burning, welding, or a similar operation that is capable of initiating fires or explosions. This definition can be applied to activities within a facility such as periodic/planned maintenance activities, new construction work and emergency repairs.

Welding, cutting and other hot work shall comply with MA State Fire Prevention Regulations 527 CMR 1 c 41 and NFPA 51B *Standard for Fire Prevention During Welding Cutting, and Other Hot Work*. Hot work processes shall include: welding and allied processes, heat treating, grinding, thawing pipe, powder-driven fasteners, hot riveting, torch applied roofing and similar applications producing a spark, flame or heat.

Exemptions:

The following equipment are exempt from the hot work regulation: electric soldering irons, candles, pyrotechnics or special effects, cooking operations and the design and installation of gas cutting and welding equipment.

Procedure

A Wellesley College Application for Welding, Cutting and Other Hot Work shall be completed by the designated Hot Work Operator and submitted for review and signature by EH&S **PRIOR** to applying for a permit from the Wellesley Fire Department. The Hot Work Operator must have received training and possess a valid *Hot Work Safety Certification* before the application will be approved. The fire department will be looking for our signed application prior to the issuance of a permit. The fire department is the authority having jurisdiction and will determine if a firefighter paid detail will conduct the FIRE WATCH. If the fire department does not require a paid detail, then it is the obligation of the hot work operator to conduct a FIRE WATCH before, during and no less than 30-minutes after the work is completed.

The responsible party will confirm that the hot work is necessary and inspect the site where the proposed work is to be done. A determination of necessary precautions is required to ensure that work is done safely prior to any welding or cutting operations. Thirty five (35) feet in all directions of the site of the hot work must be *fully examined* for potential fire hazards and the following conditions met:

- The automatic fire sprinkler and fire detection system and other fire safety equipment, if present, must be in service and fully operational. Approval by EHS is required for disconnecting or isolating any equipment.
- Provide and have readily available portable fire extinguishers appropriate for area hazards.
- The hot work equipment must be in satisfactory operating condition.
- Separate hot work operations from all combustibles by a radius of 35 feet of open space to isolate fuels from sparks. Including:
 - Clear floors of dust, debris and grease or oils.
 - If the floor is made of combustible materials, it must be covered with a listed welding blanket or welding pad.
 - Remove flammable liquids like paints, oils, and lacquers

- o Combustibles must be removed from the work area or covered with a listed welding blanket or welding pad. This includes storage or machinery with grease or lint deposits.
- o Openings or cracks in walls, floors or ducts shall be covered or sealed with listed fire-rated or noncombustible material to prevent the passage of sparks.
- o Ducts and conveyor systems that might carry sparks to distant combustibles shall be shielded or shut-down or both.
- o If hot work is conducted near walls, partitions, ceilings or roofs then they shall be protected by a listed welding curtain, blanket or welding pad.
- o If hot work is to be done on a non-combustible wall, such as a metal wall or partition, then the opposite side of the wall must be cleared of combustible materials. Due to conduction or radiation of heat, there is a risk of fire in the adjacent area. If combustible materials cannot be relocated from the adjacent area, then a second fire watch shall be assigned to that area.
- o Hot work done on or near pipes shall be examined for the possibility of conduction of heat to other areas which may have ignition sources.
 - The potential for explosive atmospheres must be considered, so either eliminate the explosive atmosphere or the work will be prohibited. Shut down any processes that produces explosive atmospheres and continuously monitor the area for accumulation of combustible gases before, during and after hot work.
 - All doors must be closed to prevent sparks from escaping.
 - For hot work on vessels or boilers, use only qualified and trained professionals.

Other items to consider while performing hot work is appropriate personal protective equipment, handling and storage of gas cylinders, and welding in confined spaces.

All hot work scheduled for evenings, nights and weekends shall be coordinated with the EH&S office. For emergency work, trained personnel can conduct the work as long as they (1) contact Campus Police and alert them when the job begin and when it is complete, (2) Inform the on-call facilities supervisor, (3) notify the Wellesley Fire Department and (4) contact EHS next business day with completed hot work application.

Additional assistance can be provided by contacting the EH&S Office at x 3882.

Designated Areas exempt from submitting an application and applying for a permit are welding & cutting processes (maintenance & emergency repairs only) at the Power Plant, Motor Pool and the Trade Shop Building Shop areas by Wellesley College employees who hold a license to perform hot work (ex. plumber).

"TIG" for Tungsten Inert Gas welding in the following areas are exempt from obtaining a Fire Department permit, but still require a permit from EHS: *routine* cutting and welding in mechanical rooms in Academic and Administrative buildings and the steam tunnel. This applies to Wellesley College employees only.

Responsibilities

The General Contractor, Wellesley Project Manager, and or Maintenance Services is the responsible party and will be accountable for ensuring that all hot work done at Wellesley College is completed according to this policy and applicable codes. This includes a college application form that must be delivered to EHS for review and signature before work starts. Contractors will need to obtain a completed and sign application form from EHS **PRIOR** to applying for a permit from the Wellesley Fire Department. The fire department will be looking for our signed application prior to the issuance of a permit. The EH&S office or their designee has the authority to stop work on any project that is not in compliance with the requirements of this policy.