



LBNL Fire Prevention & Protection Standard Operating Guidelines

Section:	Effective: 6/28/2013
Title: Hot Work Permits and Designated Areas	
Revision: 0.1	
Number: 07.11.001.108	

1.0 Purpose

The purpose of this policy is to describe the responsibilities and processes for acquiring and maintaining a Hot Work Permit at Lawrence Berkeley National Laboratory (LBNL) and leased facilities.

2.0 Scope

This policy applies to all hot work permits and related procedures at Berkeley Lab and leased facilities.

3.0 Related Documents

- DOE Order 420.1 C, Facility Safety
- NFPA 51B, Standard for Fire Prevention During Welding, Cutting, and Other Hot Work
- California Fire Code Chapter 35, Welding and Other Hot Work

4.0 Definitions

- **Fire Safety Permit-** A Document issued by Protective Services, for the purpose of authorizing performance of specified hot-work or hazardous operations.
- **Permit Authorizing Individual (PAI)-** Individual designated by management to authorize hot work. This is either the Berkeley Lab Fire Marshal or his/her designee.
- **Hot Work Operator** Individual physically operating the hot-work equipment that creates the hot-work hazard.
- **Fire Watch** A separate individual responsible from the Hot Work Operator responsible for maintaining compliance with the hot-work permit and identifying and responding to fire and personnel hazards of the operation.
- **Hot Work Area** Area that is exposed to sparks, hot slag, or radiant or convective heat as a result of the hot work. Includes a minimum of 35-foot radius from hot-work operation. Additional clearance may be specified by PAI.



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- **Combustibles** Any material that will ignite and sustain combustion, including wood, paper, cardboard, vegetation, flammable/combustible liquids, flammable gases, etc.
- **Openings** Holes, cracks or voids in walls, floors, ducts shafts, etc. of sufficient size to permit the passage of flame, sparks, hot slag, or burning material.
- **Designated Area** A permanent location designed or approved for hot work operations.

5.0 Situations Requiring Hot Work Permits

- Welding and allied processes
- Heat treating
- Grinding
- Thawing pipe
- Powder-driven fasteners
- Hot riveting
- Torch applied roofing
- BBQ propane or charcoal and sternos
- Similar operations producing or using a spark, flame, or heat

6.0 Program Requirements

- Prior to performing any hot work, a fire safety permit must be obtained from Protective Services.
 - Permits are requested by calling 510-486-6015, waiting for the prompt and dialing 1.
 - **Permits shall be requested not less than 24 hours in advance of the work to be done. For Work that is to be done on weekends, permits are to be requested not later than 12:00 PM on the Friday before. Permits will be issued (inspected) between the hours of 8AM to 4PM.**



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- The requestor (Operator) must meet with the Permit Authorizing Individual (PAI). Fire Safety Permits written by the PAI are signed by the PAI and the operator.
- The permit must be posted at the site prior to, and during any hot work. A copy of the permit is maintained by the Fire Marshal's office.
- The Operator must have the work area sufficiently prepared so that the PAI can inspect equipment, location, conditions, and verify the scope and duration of the work.
- The PAI will issue the permit once these requirements have been met and the scope of the work is well defined. The PAI may re-inspect at any time.

7.0 Instructions

- All equipment and tools must be on site where hot work will be performed so they can be inspected prior to permit issuance.
- The hot work operator must assure that all conditions of the permit are addressed prior to start of work and that conditions do not change as the work progresses. If the work or conditions change, stop and contact the PAI for a review/re-inspection and possible modification of the permit for reissuance.
- A fire watch is required during and for a 1/2-hour minimum after the stoppage of hot work. This allotted amount of time can be extended at the PAI's discretion. It will be clearly marked on the permit and the hot work operator will be verbally informed of the specific time required for the fire watch to stay at the work site after completion of hot work operations.
- Permits may be issued for one day or for multiple days. Where satisfactory fire prevention conditions are constant, permits can be issued at the PAI's discretion for up to 1 or 2 weeks. **If a hot work permit is issued for more than one day, a daily re-**



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inspection of the area is required. This is required regardless of the number of days a permit is issued. Re-inspections are conducted by the PAI and are scheduled by the PAI.

- A designated hot work area shall be an area that is non-combustible, fire-resistive construction, essentially free of combustibles and flammables, suitably segregated from adjacent areas, equipped with fire extinguishers, and inspected and approved by the Fire Marshal.
- Where permanent pedestal grinders and welding booths are set up in Lab shops, permits may be issued annually, with daily inspections and documentation the responsibility of the shop supervisor. The PAI may inspect at any time to verify compliance.
- Prior to obtaining a Fire Safety Permit operators must have completed the following per Lab Employees Job Hazard Analysis (JHA) or Subcontractor Job Hazard Analysis(SJHA) Requirements:
 - EHS0520 Fire Extinguisher Safety Part 1
 - EHS0520 Fire Extinguisher Safety Part 2
 - EHS 535 Hot Work Permit Training

Revision History

Revision	Date	By Whom	Description
0	11/25/13	AKrigbaum	Link to policy; publish
0.1	1/3/14	G.Aus	Minor changes