

HOT WORK GUIDELINES AND PERMIT PROCESS

Colorado State University

Hot Work is any work process that requires heat or open flame to complete or produces high heat or sparks. Hot Work procedures include but are not limited to use of open flames, compressed gas or supplied fuel burning, cutting, grinding or other extreme heat producing device, brazing, welding, flame soldering, thawing pipes with torches, applying roofing materials with torches and other work where there is a risk of fire associated with the work. Colorado State University requires all employees, contractors or other vendors to be permitted for Hot Work prior to the start of any work within University owned, leased or managed facilities where there is a risk of fire to complete the required task. Any exception to this policy requires approval of the Director of Facilities Management. Exceptions must be in writing and the original document must be kept on file within Facilities Management.

Hot work that is performed away from the facility does not require a permit. However, if Hot Work is performed inside, an attic space, a crawl space, or immediate perimeter of a facility a permit is required and must be approved prior to the start of work. Permit Authorizing Individuals include Design and Construction Services & Remodel and Construction Services Project Managers, District Energy Manager, Outdoor Services Manager, Trades Maintenance Manager or a Facilities Management designate may approve the permit as well as determine during the pre-inspection whether a manned Fire Watch may also be required.

Safety Requirements Required By Hot Work Permits

1. All fire sprinkler systems are in service.
2. Flammable and combustible materials within a 35-foot radius of hot work must be removed or covered with fire retardant tarps or metal slides.
3. All floors and surfaces within a 35-foot radius of the hot work area must be swept free of combustible dust or debris.
4. Any openings or cracks in the walls, floors or ducts that are potential travel passages for sparks, heat and flames must be covered.
5. An operable fire extinguisher must be nearby and accessible.
6. Sprinkler heads that could be activated by hot work must be covered with a wet rag.
7. Smoke detectors in the area of hot work must be removed by authorized university staff to prevent damaged sensors and false alarms.
8. A Fire Watch must be posted, if it is required, during hot work operations and for 60 minutes after work has been completed.
9. Smoke detection system is placed back in service 60 minutes after work is completed or the area must be physically monitored for three hours after completion of work. Monitoring can be accomplished with hourly tours of the area. Monitoring should be provided for floors below area of work when there are penetrations in the floor where the work was conducted.

Fire Watch

A Fire Watch must be posted if:

1. Combustible materials within a 35-foot radius of hot work cannot be removed.
2. Wall or floor openings within a 35-foot radius of hot work expose combustible materials in adjacent areas, including concealed spaces in walls or floors.
3. Combustible materials are adjacent to the opposite side of partitions, walls, ceilings or roofs and are likely to be ignited.
4. The area of work features combustible construction or exposed plastic insulation.
5. It is deemed necessary by the Permit Authorizing Individual.

General Guidelines

1. Work should be performed using alternative methods other than hot work whenever possible.
2. Hot work should be performed in designated hot work rooms whenever practical.
3. Hot work permits are valid for one day and one area and should be posted in the area of hot work for the duration of the activity.
4. A copy of every permit shall be kept on file at Facilities Management in the project file or file with the section manager.

Permitting Process

Project managers and Operations managers will initially determine if welding, cutting, soldering and heating must be done as part of the project or work order. Hot Work must be authorized through Facilities Management by completing a Hot Work Permit (page 3).

Permit Authorizing Individuals

1. Remodel and Construction Services Project Managers
2. Operations Managers
 - a. District Energy
 - b. Outdoor Services
 - c. Trades Maintenance
 - d. Utilities Services
 - e. Other
 - i. Facilities Management designee to be authorized by Associate Director, Operations, Facilities Management.
3. See page 4 for approved permit authorizing individuals.

Permit Filing Requirements

Permits are to be kept on file:

1. Indefinitely, in corresponding project files within RCS, **or**,
2. With the responsible Operations manager for no less than 48 hours following the work.

Work Performed in Shops and Other Designated Hot Work Areas

A designated hot work room is a permanent location designed for hot work. For an area to be designated for hot work, it must meet the following requirements:

1. Noncombustible fire resistive construction, essentially free of combustible and flammable contents.
2. Suitably segregated from adjacent areas.
3. Equipped with fire extinguishers.

Campus departments that perform hot work on a routine basis in a permanent shop or other designated work site will be exempt from the above permit.

Operations Not Requiring a Hot Work Permit

Operations that produce a flame, spark, hot slag or enough heat to ignite combustible materials should be considered hot work with a few exceptions. The following operations do not require a Hot Work Permit:

1. Bunsen burners in laboratories
2. Fixed grinding wheels
3. Electric soldering irons

Non-permissible Hot Work Situations

Hot work is not permitted when the following conditions exist:

1. Sprinklered buildings where the entire sprinkler system is impaired.
2. When an entire building fire detection system is shut down.
3. The presence of explosive atmospheres, where mixtures of flammable gases, vapors, liquids or dust may exist.
4. Tanks, drums or other containers and equipment that contain or previously contained materials that could create explosive atmospheres.

Contractors Conducting Hot Work

Contractors performing hot work shall maintain a Hot Work Permit Program and employee-training program that meets OSHA requirements and must be able to provide evidence as such upon request.

Hot Work Site Pre-Inspection

A pre-inspection of the area where work is to be done is the responsibility of Facilities Management project or maintenance operations managers. The pre-inspection is required to:

1. Assess the risks associated with the work area, i.e. whether the work area is cluttered, houses combustible materials or flammable liquids.
2. Determine whether additional safeguards may be needed.
3. Determine whether a manned Fire Watch is required.

HOT WORK PERMIT AUTHORIZATION
Colorado State University
Fort Collins, CO 80523-6030

I hereby state that I have been provided with a copy of the CSU Hot Work Guidelines and I agree to follow them. I agree that all information included on any Hot Work permit that I sign will be true and correct to the best of my knowledge, that the work site has been examined and that all recommended safety measures are in place.

Colorado State University department of _____

Employee Name (printed)

Employee (signature)

Date

I hereby state that I have provided the CSU Hot Work Guidelines to the employees under my direction and I agree to follow and instruct my employees to follow them. I will exercise my supervisory authority to the best of my ability to ensure that the information included on the permit is true and correct, the site has been examined and all recommended safety measures are in place. If at any time I am aware that a Hot Work site is unsafe, I will immediately stop work until safety measures have been restored.

Supervisor Name (printed)

Supervisor (signature)

Date

HOT WORK PERMIT

Colorado State University
Per 2012 IFC

	X	PERMIT CHECKLIST
Date:	<input checked="" type="checkbox"/>	
Building:		Flammable and combustible materials within a 35-foot radius of hot work have been removed or covered with fire retardant tarps or metal shields.
Location:		All floors and surfaces within a 35-foot radius of the hot work area have been swept free of combustible dust and/or debris
Description of hot work:		Any openings or cracks in the walls, floors or ducts that are potential travel passages for sparks, heat and flames have been covered.
Name of Hot Work Operator:		An operable fire extinguisher is nearby and accessible.
Is a Fire Watch Required? Yes _____ No _____		Sprinkler heads that could be activated by hot work have been covered with a wet cloth or rag.
A Fire Watch should be posted if: <ul style="list-style-type: none"> • Combustible materials within a 35-foot radius of hot work cannot be removed. • Wall or floor openings within a 35-foot radius of hot work or expose combustible materials in adjacent areas, including concealed spaces in walls or floors. • Combustible materials are adjacent to the opposite side of partitions, walls, ceilings or roofs are likely to be ignited. • It is deemed necessary by the Permit Authorizing Individual. 		<p>A fire watch has been posted, if it is required, during hot work operations and for 60 minutes after work has been completed.</p> <p>Smoke detection system is placed back in service 60 minutes after work is completed or the area must be physically monitored for three hours after completion of work.</p>
AUTHORIZATION: The information on this permit has been evaluated, the site has been examined and all safety measures are in place.		
PERMIT AUTHORIZING INDIVIDUAL signature:		