

VA Hospital
Hines, IL

Policy Memorandum 578-03-001-089 (R-2)
March 27, 2013

Cutting, Welding and Other Hot Work

Changes:

- Removed paragraph 2a (7) “Construction areas, small projects, and or emergency repair locations.

Education / Training:

- The Safety Officer will ensure review of changes by FMS staff and contractors affected.

Related Forms: None

KEYWORDS: welding, hot work, burn permits

Cutting, Welding and Other Hot Work

1. **PURPOSE:** To establish policy and procedures for cutting, welding and other hot work operations in non-designated areas and to assure that all supervisors, employees, and contractors take proper precautions when any cutting, welding, or other hot work is to be accomplished.

2. **POLICY:**

a. Designated welding areas include the following Facilities Management Service shops/areas:

- (1) Machine Repair Shop,
- (2) Pipefitting Shop,
- (3) Air Conditioning and Refrigeration Shop,
- (4) Motor Transportation Shop,
- (5) Biomedical Section Repair Area, and
- (6) Boiler Plant.

b. In order to minimize the risk of fires during construction, alteration, demolition operations, or making repairs while performing hot work such as cutting, welding, thermit welding, brazing, soldering, grinding, thermal spraying, thawing pipe, or any other similar work, procedures and controls are hereby established to **control** all cutting and welding operations conducted in areas not specifically designated for this type of operation.

c. Cutting, welding, and other hot work shall NOT be permitted in the following areas:

- (1) In the presence of explosive atmosphere (mixtures of flammable gases, vapors, liquids, or dust with air);
- (2) In areas not authorized by the Safety Section; and
- (3) In buildings equipped with a sprinkler system while the sprinkler system is impaired.

d. A cutting, welding, and other hot work permit shall be obtained from the Safety Section, located in Building 2, within 1-2 days **prior** to any and all cutting and welding (see Attachment A) in non-designated areas. The original, or a copy, must be immediately available while work is being done in those non-designated areas. A copy of the permit shall be retained in the files of the Safety Section.

e. The Safety Officer, other designated fire safety personnel in the Safety section and FMS employees at/or above the section chief level shall have the authority to stop cutting, welding, and other hot work operations that are being accomplished without a permit and such operations that do not meet standards set forth in NFPA 51B.

f. Cutting, welding, and other hot work operations performed by outside contractors, i.e. non-Hines VA employees, in non-designated areas on off tours (nights, weekends and holidays) MUST be directly supervised/observed by the project engineer even if a fire watch is not required.

3. **RESPONSIBILITIES:**

a. The Safety Section is responsible for:

(1) providing oversight of the overall hazardous operations involving cutting and welding operations within the hospital complex, and

(2) authorizing cutting, welding, and other hot work operations in areas not specifically designed or approved for such processes

b. The Chief, Facilities Management Service is responsible for:

(1) ensuring that maintenance personnel are trained in proper welding, cutting and other hot work procedures and comply with the requirements of this policy, and

(2) ensuring that an individual from the requesting shop or department shall supply an individual for safety operations who is knowledgeable and capable of operating the fire extinguisher in their possession .in the event that a fire watch is required during operations in both designated and non-designated areas.

d. The contracting officer's representative (COR)/project engineer is responsible for:

(1) assuring that all contractors follow the procedures in this policy, and

(2) requesting authorization, i.e. burn permit is secured for cutting, welding, and other hot work operations, prior to the initiation of work in non-designated areas, to assure conditions are safe;

(3) supervising/observing cutting, welding and other hot work operations done in non-designated areas during off tours (nights, weekends and holidays); and

(4) participating in any fire watches required for work being done by non-VA employees or ensuring that coverage can be provided by appropriate personnel in the Safety Section.

e. **Contractors** are responsible for:

(1) Instructing their employees on this policy prior to the initiation of any cutting, welding or hot work, and

(2) Requesting authorization, i.e. burn permit for cutting, welding, and other hot work prior to the initiation of work;

(3) Ensuring that individuals involved in hot work operations shall be trained in the safe operation of their equipment and in the safe use of the process;

(4) Ensuring that individuals involved in hot work operations have an awareness of the inherent risks involved and understand the emergency procedures in the event of a fire;

(5) Ensuring the original/copy of the burn permit is available at the work site; and

(6) Ensuring that the original/copy of the burn permit is returned to the Safety Office upon for record keeping.

4. **ACTIONS:**

a. Upon issuance of cutting and welding permit, the name of the individual receiving the permit and the date and time of issuance shall be entered in the Safety Section Hot Work Permit Log. A copy of the permit shall be retained in the files of the Safety Section.

b. For all cutting, welding, and other hot work operations not in approved designated areas, the Safety Section will be notified at extension 24301 or extension 25614 at least 30 minutes prior to any operation. NOTE: If this work has been scheduled in advance for the off tours, the project engineer must be present during the work.

c. When work cannot be moved practically, the work area will be made fire safe by removing or covering combustibles within a range of possible sparks.

d. The area around any operation will be cleared of dust or lint to exceed the possible range of sparks by three (3) feet.

e. Wherever there are floor openings or cracks in the flooring that cannot be closed, precautions shall be taken so that no readily combustible materials on the floor below will be exposed to sparks which might drop through the floor. The same precautions shall be observed with regard to cracks or holes in walls, open doorways and open or broken windows.

f. Where combustible materials such as paper clippings, wood shavings, or textile fibers are on the floor, the floor shall be swept clean for a radius of 35 feet (10.7 m). Combustible floors shall be kept wet, covered with damp sand, or protected by fire-resistant shields. Where floors have been wet down, personnel operating arc welding or cutting equipment shall be protected from possible shock.

g. When required based on the assessment of the Safety Section personnel (see Attachment A), the fire watch will be designed to have appropriate personnel present, as detailed above, with an approved fire extinguisher for the duration of the operation and for thirty (30) minutes after the operation is complete.

h. When cutting or welding overhead, an approved fire blanket will be placed below to cover the area affected. Note: The blanket will either be provided by the contractor or the VA employees doing the work.

i. Upon the completion of operation, an inspection will be made for any hot materials and areas by the fire watch individual before securing the area.

5. **REFERENCES:**

a. NFPA 51B, Standard for Fire Prevention During Welding, Cutting, and Other Hot Work, 2009 Edition

b. 29 CFR OSHA 1910.252(a)(2)(i) General Requirements: Welding, Cutting & Brazing

6. **RESCISSION:** Policy Memorandum 578-03-001-089 (R-1) Cutting, Welding, and Other Hot Work, dated March 13, 2010.

7. **RECERTIFICATION:** This Policy Memorandum will be re-certified on or before March 27, 2016

8. **FOLLOW-UP RESPONSIBILITY:** Safety Section (001S)

Joan M. Ricard, FACHE
Hospital Director

Attachments

Distribution: Hines Intranet Website and Service Chiefs/Service Line Managers via E-mail

**PERMIT FOR CUTTING AND WELDING
WITH PORTABLE GAS OR ARC EQUIPMENT**

Date _____

Building _____

Department _____ Floor _____

Work to be done _____

Special precautions _____

The location where this work is to be done has been examined, necessary precautions taken, and permission is granted for this work. (See other side.)

Permit expires _____

Signed _____
(Individual responsible for authorizing
welding and cutting)

Time started _____ Completed _____

FINAL CHECK-UP

Work areas and all adjacent areas to which sparks and heat might have spread (including floors above and below and on opposite sides of walls) were inspected 30 minutes after the work was completed and were found fire safe.

Signed _____
(Individual Responsible for Permit)

ATTENTION

Before approving any cutting and welding permit, the fire safety officer/ appointee shall inspect the work area and confirm that precautions have been taken to prevent fire in accordance with NFPA 51B.

PRECAUTIONS

- _____ Sprinklers in service
- _____ Cutting and welding equipment in good repair

WITHIN 35 FT. OF WORK

- _____ Floors swept clean of combustibles
- _____ Combustible floors wet down, covered with damp sand, metal or other shields
- _____ No combustible material or flammable liquids
- _____ Combustibles and flammable liquids protected with covers or guards
- _____ All wall and floor openings covered
- _____ Covers suspended beneath work to collect sparks

WORK ON WALLS OR CEILINGS

- _____ Construction non-combustible and without combustible covering
- _____ Combustibles moved away from opposite side of wall

WORK ON ENCLOSED EQUIPMENT
(Tanks, containers, ducts, dust collectors, etc.)

- _____ Equipment cleaned of all combustibles
- _____ Containers purged of flammable vapors

FINAL CHECK-UP

- _____ To be made 30 minutes after completion of any operation unless fire watch is provided.

Signed _____
(Individual Responsible for Permit)