

SECTION 01 01 10 - FSS
FIRE SAFETY SECTION

PART 1 - GENERAL

1.1 DESCRIPTION: This section covers safety precautions required by all contractor personnel to safeguard patients, visitors, and Department of Veterans Affairs employees.

1.2 RELATED SECTION

A. Section 01 00 00 - GENERAL REQUIREMENTS

1.3 APPLICABLE PUBLICATIONS

A. NFPA standard No. 241 - Safeguarding Construction, Alteration, and Demolition Operations.

B. NFPA Standard No. 51B - Fire Protection in use of cutting and welding Processes.

C. NFPA Standard No. 101 - Life Safety Code (Current Edition)

D. OSHA Regulations 29CFR1926 - Construction Industry Standards.

1. Sub-part P- Fire Protection and Prevention









2. Sub-part J- welding and Cutting

PART 2 - PRODUCTS

2.1 PRODUCTS:

A. Table F-1 indicates which fire extinguishers are required for various combustible materials.

Table F-1 FIRE EXTINGUISHERS DATA

TYPE OF AGENT					
<p>Each class of fire calls for the right kind of extinguisher. Using the wrong extinguisher is dangerous and may do more harm than good. For your own protection, you should know the classes of fire, the different types of extinguishers, how to use them and why.</p> <p> </p> <p>Fires in ordinary combustible materials - paper, wood, and many plastics. Quenching by water or insulating by Multi-Purpose (ABC), dry chemical is effective.</p> <p></p> <p>Fires in flammable liquids such as gasoline, oils, grease, tars, paints, lacquers and flammable gases. Multi-Purpose (ABC), Regular Dry Chemical, Halon 1211, and Carbon Dioxide agents smother these fires.</p> <p>Fires in electrical equipment.. Motors, generators, switches and appliances.. where a non conducting extinguishing agent Multi-Purpose (ABC), Regular Dry Chemical, Halon 1211 or Carbon Dioxide is required.</p>	<p>Multi-Purpose Dry Chemical Monoammonium Phosphate</p> <p>Yes-excellent Adheres to burning materials and forms a coating which will smother the fire and minimize reflash.</p> <p>Yes-excellent Dry chemical agent smothers fire. Screen of agent shields user from heat.</p> <p>Yes-excellent Dry chemical agent is non-conductive. Screen of agent shields user from heat.</p>	<p>Regular Dry Chemical Sodium Phosphate</p> <p>No</p> <p>Yes-excellent Dry chemical agent smothers fire. Screen of agent shields user from heat.</p> <p>Yes-excellent Dry chemical agent is non-conductive. Screen of agent shields user from heat.</p>	<p>Halon 1211 Bromoclorodi-fluoromethane</p> <p>Yes-excellent Halon 1211 leaves no residue. May not normally affect equipment.</p> <p>Yes-excellent Halon 1211 leaves no residue. May not normally affect equipment.</p> <p>Yes-excellent Halon 1211 is a non-conductor, leaves no residue, may not normally affect or damage electrical equipment.</p>	<p>Carbon Dioxide (CO₂)</p> <p>No</p> <p>Yes-excellent Carbon Dioxide leaves no residue, may not normally affect or damage equipment.</p> <p>Yes-excellent Carbon Dioxide is a non-conductor, leaves no residue, may not normally affect or damage electrical equipment.</p>	<p>Water</p> <p>Yes Water saturates materials and prevents rekindling.</p> <p>No Water will spread flammable liquids and not put it out.</p> <p>No Water, a conductor, should never be used on live electrical fires.</p>
<p>RANGE -----</p> <p>Discharge Time -----</p>	<p>5 to 20 feet</p> <p>10 to 25 seconds</p>	<p>5 to 20 feet</p> <p>10 to 25 seconds</p>	<p>8 to 18 feet</p> <p>8 to 18 seconds</p> <p>Depending on size</p>	<p>3 to 8 feet</p> <p>8 to 30 seconds</p>	<p>Up to 40 feet</p> <p>Up to 60 seconds</p>

B. Cover Plates

1. Receptacles - Manufactured by H. B. Enterprises or equal. Catalog No. 007
2. Switches - Manufactured by N. 13. Enterprises. Catalog No. 003

PART III - EXECUTION

- 3.1 Construction offices and trailers used as storage are required to a located minimum distance from permanent structures. Veterans Administration approval of location does not relieve the contractor at this ultimate responsibility of meeting OSHA and NFPA Regulation.
- 3.2 Contractor is required to obtained a permit from the office of the Chief Engineer prior to start of each welding/cutting operation. The Chief Engineer reserves the right to delegate the Project Manager as approving official. The following form is acceptable for obtaining approval and may be reproduced at contractor's expense. Other form must be submitted for approval by the Project Engineer prior to use.
- 3.3 The following checklist is provided to the contractor as a quick reference only. NFPA 513 should be consulted for official requirements for protection of the area.

REQUEST FOR SPRINKLER SYSTEM SHUTDOWN

Date Closed: _____ Time Closed: _____

Planned Date Restored: _____ Time Restored: _____

Location of System: Bldg: _____ Floor: _____ Wing: _____

Area this will affect: _____

Impact on adjacencies: _____

Reason for shutdown: _____

If Construction, Give Project#: _____ Generic Maintenance Contract _____

Sprinkler Contractor: _____ General Contractor: _____

Phone: _____ Phone: _____

Remarks: _____ Approval [x] Disapproval []

Approving Authority Comments: _____

Signature/Approval Authority

Copy one (1) VAMC, Form No 138-S1**Revised 2/05**

Location of System: Building: _____

Wing: _____

Floor: _____

Date Valve Reopened: _____

Time Valve Reopened: _____

Date Closed: _____

Time Closed: _____

Signature of Requestor_____
Signature of FM Divisional Manager

Print Name

REQUESTOR OF SHUTDOWN ID: O-001391
Copy two (2) VAMC, Form No 138-S2

Copy three (3) VAMC, Form No 138-S3
1,421

PERMIT FOR CUTTING AND WELDING WITH PORTABLE GAS, ELECTRICAL, OR ARC EQUIPMENT

Date Disabled: _____ Time Disabled: _____
 Planned Date Restored: _____ Time Restored: _____
 Location of System: Bldg: _____ Floor: _____ Wing: _____
 Area this Will Affect: _____ Impact on Adjacencies: _____

The location where the work is to be done had been examined, necessary precautions taken, and permission is granted for this work.

Work to Be Accomplished: _____

Construction Project#: _____ Generic Maintenance Contract _____
 Subcontractor: _____ General Contractor: _____
 Phone: _____ Phone: _____

Approval [] Disapproval []

 Signature/Approval Authority Approving Authority Comments:

ATTENTION

Before approving any cutting and welding permit, the Contractor's fire safety supervisor or his appointee and/or the PAI or his designee shall inspect the work area and confirm that precautions have been taken to prevent fire in accordance with NFPA 51B. Contractor is responsible to check off each item below that applies or indicate N/A.

PRECAUTIONS

- ☐ Sprinklers in service. Fully charged and operable fire extinguishers that are appropriate for the type of possible fire shall be available immediately at the work area.
- ☐ The hot work equipment to be used shall be in satisfactory operating condition and in good repair.
- ☐ The following shall apply to hot work done in close proximity to a sprinkler head:
 - (a) A wet rag shall be laid over the sprinkler head and then removed at the conclusion of the welding or cutting operation.
 - (b) During hot work, special precautions shall be taken to avoid accidental operation of automatic fire detection or suppression systems (e.g., special extinguishing systems or sprinklers).
- ☐ Nearby personnel shall be suitably protected against dangers such as heat, sparks, and slag.

WITHIN 35 FT. OF WORK

- ☐ Floors swept clean of combustibles
- ☐ If relocation is impractical, combustibles shall be protected with fire-retardant covers or otherwise shielded with metal or fire-retardant guards or curtains.
- ☐ Combustible floors (except wood on concrete) shall be kept wet, covered with damp sand, or protected by noncombustible or fire-retardant shields.
- ☐ Where floors have been wet down, personnel operating arc welding equipment or cutting equipment shall be protected from possible shock.
- ☐ Openings or cracks in walls, floors, or ducts within 11 m (35 ft) of the site shall be tightly covered with fire-retardant or noncombustible material to prevent the passage of sparks to adjacent areas.
- ☐ Covers suspended beneath work to collect sparks

WORK ON WALLS OR CEILINGS

- ☐ Construction noncombustible and without combustible covering
- ☐ Combustibles moved away from opposite side of wall
- ☐ If hot work is done near walls, partitions, ceilings, or roofs of combustible construction, fire-retardant shields or guards shall be provided to prevent ignition.
- ☐ If hot work is done on one side of a wall, partition, ceiling, or roof, one of the following criteria shall be met:
 - (a) Precautions shall be taken to prevent ignition of combustibles on the other side by relocating the combustibles.
 - (b) If it is impractical to relocate combustibles, a fire watch shall be provided on the side opposite from where the work is being performed.

WORK ON ENCLOSED EQUIPMENT

(Tanks, containers, ducts, dust collectors, etc.)

- ☐ Containers purged of flammable vapors
- ☐ Ducts and conveyor systems that might carry sparks to distant combustibles shall be shielded, or shut down, or both.

FIRE WATCH

- ☐ To be provided during and 30 minutes after operation
- ☐ Supplied with extinguisher
- ☐ Trained in use of equipment and in sounding fire alarm

FINAL CHECK-UP

- ☐ Work area 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: _____
 (Supervisor of Fire Watcher)