DHHS POLICIES AND PROCEDURES

Section V:	**Human Resources**
Title:	**Safety and Benefits**
Chapter:	**Hot Work Plan**
Current Effective Date:	**3/1/16**
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Original Effective Date:	**N/A**

Purpose

This plan outlines procedures for DHHS employees who perform operations (for example, grinding, welding, cutting, burning & heating) capable of producing a source of ignition.

Policy

It is the policy of DHHS to protect employees, patients, clients, residents, and any other individuals from hazards associated with hot work operations and to comply with all regulatory requirements for the safe operation of such equipment. This policy established guidelines to guard against fires from heat-producing operations performed by using portable equipment away from the shop area. Employees must be aware of procedures to follow when welding, grinding, cutting or conducting other hot work operations.

Definitions

Brazing and Soldering - Soldering and brazing use molten metal to join two pieces of metal. The metal added during both processes has a melting point lower than that of the workpiece, so only the added metal is melted, not the workpiece. Brazing produces a stronger joint than does soldering, and often is used to join metals other than steel, such as brass. Brazing can also be used to apply coatings to parts to reduce wear and protect against corrosion.

Cutting/Grinding - Any process which produces sparks capable of igniting combustible or flammable materials and transmits heat to the work material from a hot gas.

Designated Area - A permanent location designed for or approved for hot work operations to be performed regularly.

Fire Watch - Trained personnel who are in attendance during the entire hot work operation and are immediately available to extinguish a fire or take other effective action if needed.

Hot Work - Any process that can be a source of ignition when flammable material is present or can be a fire hazard regardless of the presence of flammable material in the workplace. Common hot work processes are welding, soldering, cutting and brazing.

Hot Work Permit – A document issued for the purpose of authorizing a specified activity.
Welding – Joining together (metal pieces or parts) by heating the surfaces to the point of melting using a blowtorch, electric arc, or other means, and uniting them by pressing, hammering, etc.

Roles and Responsibilities

Safety Programs Manager
The Safety Programs Manager (SPM) ensures that a written plan is in place to establish a policy for the hot work and hot work permitting. The SPM reviews the policy periodically.

Safety Officer
The Safety Officer monitors his/her assigned area to ensure compliance with this policy. The Safety Officer is responsible for coordinating training for applicable staff on hot work safety and permitting.

Manager/Supervisor
The manager/supervisor ensures that only authorized and trained staff perform hot work. The manager/supervisor ensures that designated staff complete required training prior to performing hot work and complete permits as required.

DHHS Staff
Staff are responsible for complying with this policy. Staff only perform hot work if trained to do so and with a completed permit. Affected staff complete training as required.

Implementation

Inspection
Plant Operations staff will inspect the area to identify the fire hazards, safety precautions, or special equipment needed to perform the job safely.

Hot Work Permit
A Hot Work Permit must be completed prior to the commencement of any hot work.

- Plant Operations staff completely fill out the Hot Work Permit (see attachment).
- Plant Operations staff submit the completed Hot Work Permit to the Plant Operations Supervisor for review.
- Hot work permits will not be approved after 3:00 p.m. on regular work days, and on weekends and holidays, except for emergency, security, health, or safety reasons.
- Permits are prohibited in buildings with inoperable fire alarms or sprinkler fire system; or when flammable or highly combustible material cannot be relocated or effectively guarded against sparks or heat (radiant, conductive or convective).

- Permits are not required when welding in a designated hot work area or when working outside of the facility.
- After the completion of all hot work, Plant Operations will complete the bottom portion of the permit and return it to the Safety Officer.
- Plant Operations must ensure that all contractors are aware of this permit system.

Fire Hazards
If the object to be welded or cut cannot readily be moved, all movable fire hazards in the vicinity will be relocated away from the work site.

Guards
If the object to be welded or cut cannot be moved and if all the fire hazards cannot be removed, then guards must be used to protect the immovable fire hazards.

Safety Screen
If there is welding where ultraviolet light radiation could harm the eyes of anyone passing by, Plant Operations installs an approved noncombustible or flameproof screen or shield to protect by-standers.

Combustible materials
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 that might drop through the floor. The same precautions shall be observed regarding cracks or holes in walls, open doorways and open or broken windows.

Fire extinguishers
Suitable fire extinguishing equipment shall be maintained in a state of readiness for instant use. Selection of equipment depends upon the nature and quantity of the combustible material exposed. Such equipment may consist of:

- Portable fire extinguisher(s)
- Pail of water
- Bucket of sand
- Water hose

Personal Protective Equipment
All employees must wear required personal protective clothing and equipment as prescribed by codes and standards while performing any hot work operations, including welding helmets, goggles, filter lenses, and properly fitting protective clothing.

Ventilation
Two thousand cubic feet/per welder of mechanical ventilation is provided when in a space less than 10000 cubic feet per minute per welder or in a room with a ceiling less than 16 feet or in a confined space.

Compressed Gas Cylinders

- Cylinders must be secured to prevent tipping, valves are closed with protection caps in place.
- Oxygen and fuel cylinders are separated and away from combustible fuel, flammable fuels and heat sources.

Fire Watch

A fire watch will be maintained for 30 minutes following hot work activity.

Training

Employees will be trained to perform hot work activities at outlined in this plan and according to requirements contained in 29 CFR. 1910 Sec Q, 251-255.

References

- OSHA Welding, Cutting, & Brazing Standard, 29CFR 1910, Subpart Q
  https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10133
- NFPA 51B, Fire Prevention During Welding, Cutting, and Other Hot Work

For questions or clarification on any of the information contained in this policy, please contact Human Resources. For general questions about department-wide policies and procedures, contact the DHHS Policy Coordinator.

HOT WORK PERMIT

This permit must be completed prior to the commencement of any hot work (welding, grinding, etc.) It must be maintained on-site and in place until the hot work and associated procedures (inspections, fire watch, etc.) are complete. Once complete, the original of this form is to be returned to the Plant Operations Supervisor or equivalent, and a copy is to be maintained by the Safety Officer.

NOTE: All hot work must be conducted prior to 3:00 p.m. except for emergencies or other mechanical needs that could affect the safety and health of staff and individuals. This permit is good only for the time and date indicated below:

Issued To:	**Date:**
Division:	**Facility:**
Building:	**Location:**
Start Time:	**End Time:**

Please complete the following checklist:

Type of Work:		**Precautions:**	
Welding		**Guards**	
Cutting		**Fire Extinguishers**	
Brazing		**Safety Screen**	
Open Flame		**Personal Protective Equipment**	
Solder		**Movable Fire Hazards Removed From Work Area**	
Blow Torch Use		**Other (Specify):**	
Other (Specify)			

	SIGNATURE:	**PRINT NAME:**
Work Supervisor:		
Plant Operations Supervisor:		
Safety Officer:		

To be completed by the Work Supervisor:

This is to confirm that I have personally made a fire inspection of the above mentioned are where I have been supervising hot work and as of _____ (insert date and time), there was no fire in the area and, in my opinion, there was not residue that could cause a fire to develop.

Signature:	**Print Name:**