

CUTTING / WELDING / HOT WORK POLICY

Scope

Hot work is any operation that involves open flames, produces sparks, or creates enough heat to ignite a fire. Examples include but are not limited to cutting and welding. Cutting and Welding is the leading cause of fires within manufacturing companies. Personnel who use cutting and welding equipment do not always appreciate the serious fire hazard created by these operations. Sparks or molten metal may travel 35 feet or more and may smolder for several hours before setting fire to combustible materials.

General

The following list of precautions is essential to minimize fire losses. Any Cutting and Welding performed at the Uchiyama Manufacturing America, LLC requires **HOT WORK PERMIT**. The adherence to these procedures and the permit system is mandatory. The permit serves as a prevention tool to minimize any and all potential fire hazards. All Employees and Contractors must follow this policy. The **HOT WORK PERMIT** must be filled out before cutting and welding can begin *except* for in an **Established Hot Work Area**. This area is the maintenance shop that meets specific requirements. These requirements are that it is non-combustible building or in a combustible building equipped with a minimum 1-hour rated barrier covering combustible floors, walls and, ceilings. The area must be maintained free of combustibles and flammable materials and suitably segregated from adjacent areas.

Areas that we must say no Hot Work

Sometimes an area cannot be made safe for hot work; these areas are as follows:

- *Areas of Flammable Liquids, gases and dusts cannot be shut down and made fire safe;*
- *Areas of lint and dust conditions are severe and beyond immediate correction;*
- *Partitions, walls, ceilings, or roofs with combustible coverings;*
- *Walls or partitions of combustible sandwich-panel type construction;*
- *Underside of metal roof decks which have combustible insulation or combustible roof coverings;*
- *Pipe or other metals that can conduct enough heat to ignite nearby combustibles which cannot be removed;*
- *Areas where there are large amounts of combustibles that are impractical to move or cover; large bins of rubber;*
- *Explosive Atmospheres or where explosive atmospheres can develop; i.e. Inside uncleaned drums or improperly prepared drums or tanks.*
- *Areas where sprinklers are impaired.*

Responsibilities

Management:

- Establish areas for cutting and welding or establish procedures for approving cutting and welding- Maintenance Shop (Only)
- Identify persons for filling out the Hot Work permit, assigned below, and other supervisors to appoint operators and fire watches as necessary for cutting and welding operations. These individuals should be aware of the fire hazards involved, shall be familiar with the provisions outlined in this program and shall be permitted to delegate the responsibilities to the trained operators and fire watches.

All other areas of the plant require a permit to be filled out **prior** to beginning work. The **HOT WORK PERMITS** are located at the EHS Manager's desk. The following individuals can issue permits:

- Environment Health & Safety Manager (EHS Manager)
- Maintenance Supervisor
- Off-Shift Superintendent
- Shift Supervisor (**NOTE:** Only in the absence of any of the above)

The Supervisor or the person responsible for the work that is being performed will enforce this policy.

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The EHS Manager, all Fire Watch personnel, and Hot Work Operators will receive Fire Extinguisher training. There will be additional training involving how to fill out Hot Work Permits and the requirements associated with this responsibility. The Hot Work operator supervisor will be responsible for the follow-up of all Hot Work Permits that expire on their shift. Fire Watch personnel should remain at their station until the Hot Work is complete. This will minimize the potential fire hazard and ensure the safety of the Hot Work Operator.

Precautions to Follow

- Before any Hot work the Hot Work Operator, Fire Watch Operator, and the Supervisor should go and inspect Hot Work area. All questions on the Hot Work Permit must be answered before work begins. After the job is finished all suggested follow-up procedures must be completed.
- Make sure all sprinklers are in service and Fire Protection is available (a water bottle is the minimum requirements for fire protection where sprinklers or fire hoses are not available).
- Before starting, sweep floors clean and wet down floors if necessary.
- When performing Hot Work outside **DO NOT** let sparks enter doors or windows.
- Move any combustible material at least **35 feet** away from work area. Combustible material that cannot be moved, must be covered with sheet metal or **NON-combustible** tarpaulins.
- Station extra personnel with hose, extinguishers, or water bottles downstairs below work area to make sure no fire can start.
- After work is complete, follow suggestions on Hot Work Permit for watch precautions and follow up.
- **DO NOT** cut or weld near flammable liquids or in a closed tank which held flammable liquids.
- Make sure all cutting and welding equipment is inspected and in good working condition.
- Oxygen and Acetylene bottles must be turned **OFF** when not in use and regulators must be **REMOVED** and **CAPS** installed back on bottles.

Training

The EHS Manager, all Fire Watch personnel, and Hot Work Operators will receive Fire Extinguisher training. Authorized training personnel will conduct training. All training classes will be documented on a training record. All employees and contractors, as necessary, will receive this training as determined by their supervisor and annually thereafter. Contractor Orientation and Annual Training (for those who it applies to) will include this training.

Inspections

The EHS Manager, all Fire Watch personnel, and Hot Work Operators will receive Fire Extinguisher training. There will or Maintenance Supervisor, will conduct inspections. These inspections will be at random. Violations of this policy can lead to disciplinary action or removal from plant site. Discrepancies will be corrected immediately to insure the safety of all employees and contractors.

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General Guideline Checklist

Location

Equipment/Situation Inspected



In compliance



Not in compliance

Comments and Recommendations

Inspection Conducted by:

Name: _____

Title: _____

(If not in full compliance, Steps 1 & 2 must be completed before form is filed)

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General Guideline Checklist

Location

Step One: What action will be taken to correct condition or practice that resulted in non-compliance finding?

Step Two: Reviewed and accepted by: Name:

Date:

Manager:

Date: