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Procedure No. 03-08
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Date: January 18, 2017

STANDARDS/PROCEDURES MANUAL

Approved: /s/ Jeff Rosenfelt

HOT WORK PROCEDURE

It is the policy of Key Technology to not permit Hot Work operations on its premises, by either employees or contractors, except when following the procedures as described within this document.

I. PURPOSE/SCOPE

The purpose of the Key Technology Hot Work procedure is to protect personnel and property from a fire caused by Hot Work. The Key Technology Hot Work procedure defines the responsibilities and requirements for performing Hot Work and establishes controls through the use of a Hot Work permit.

This procedure applies to all Hot Work performed on Key Technology property, including work performed by Key Technology employees and external contractors. Hot Work includes any temporary operation, scheduled or emergency, indoor or outdoor, involving open flames or heat and/or sparks. Examples of Hot Work include torch cutting, welding, soldering, brazing, grinding, or use of heat producing devices.

Permanent areas which are designated areas for long term or permanent performance of Hot Work, such as maintenance shop, welding areas, or fabrication areas. These areas are inspected periodically and have been deemed to be fire safe for the operations conducted, and do not need the issuance of a Hot Work permit for approved operations in those areas.

If Hot Work cannot be conducted safely it shall not be performed.

A Hot Work permit is **not** required for:

- A. Operations performed in permanent areas, which are designated areas for long term or permanent performance of Hot Work, such as a maintenance shop or a detached outside location. These areas have been inspected by the Safety Officer and found to be "fire safe" within the past 90 days.
- B. Permanent areas where welding, torching, or cutting will be performed must have the following conditions to be exempt from this policy:
 1. Area constructed of noncombustible or fire resistive material.

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2. Essentially free of combustible and flammable content.
3. Suitably segregated from adjacent areas.
4. Equipped with a suitable exhaust system capable of removing the fumes and spent gases associated with Hot Work.

II. ASSOCIATED MATERIALS

- A. OSHA 29CFR 1910.252-254
- B. NFPA 51B
- C. [Hot Work Permit Template](#)

III. DEFINITIONS

- A. Safety Officer: The Safety Officer is corporately responsible for:
 1. Overseeing the Hot Work Procedure to provide for regulatory compliance.
 2. Assisting in evaluating specific work to determine if potential Hot Work exists.
 3. Inspecting and approving the job site for Hot Work, as needed.
 4. Prescribing any additional personal protective equipment (PPE) beyond the minimum required.
 5. Maintaining copies of Hot Work permits for one year.
- B. Authorized Person: An authorized person, (supervisor or lead), employed by Key Technology, shall be responsible for ensuring compliance with this procedure. The applicable project manager will be the authorized person for contracted work. The authorized person shall have sufficient technical knowledge, training and practical experience in the Hot Work processes and their associated hazards.

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The authorized person is responsible for:

1. Ensuring Hot Work is identified and performed in accordance with this policy.
 2. Performing a hazard assessment of the scheduled Hot Work and the work area, as needed, to establish controls and fire watch requirements (see precautions & requirements section below).
 3. Notifying the Supervisor and/or Lead that Hot Work is being performed.
 4. Obtaining any alarm system bypass that may be necessary and ensuring such alarm system is reactivated upon completion of Hot Work. Impairments to the fire protection equipment are to be reported to our insurance carrier.
 5. Making sure that persons who will perform Hot Work have read and understand the Hot Work procedure.
 6. Assuring that persons who will perform Hot Work have demonstrated competency in the use of Hot Work equipment and are trained in performing Hot Work.
 7. Ensuring that high energy sources are isolated as needed in accordance with the lock-out/tag-out policy.
 8. Approving Hot Work permits
 9. Submitting a copy of the permit to the Safety Engineer.
- C. Hot Work Employee: The worker who is performing the Hot Work is responsible for:
1. Completing classroom Hot Work training to the requirements of this policy.
 2. Performing Hot Work in accordance with the requirements of this policy.

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3. Being familiar with the facility and how to sound an alarm in the event of a fire.
 4. Filling out the work area preparation section of the Hot Work permit
 5. Making the work area fire safe and verifying on the permit that work can start.
 6. Insuring the required safety precautions per the Hot Work permit are followed.
 7. Reporting equipment defects and discontinuing its use until it has been repaired or replaced.
- D. Fire Watch: The Fire Watch person will be an employee designated as such, who has met the training requirements. This person cannot be an employee engaged in other activities in the area and should always be available during the operation and for an hour after. This person, is responsible for:
1. Being alert to all conditions that may directly involve the safety of the cutter or welder and observing the cutter or welder for sparks, flame, or slag that lands on clothing or protective equipment
 2. Being trained to the requirements of this procedure.
 3. Having the appropriate fire extinguisher readily available.
 4. Being familiar with the facility and how to sound an alarm in the event of a fire.
 5. Sounding the alarm first, and then extinguishing the fire if practical.
 6. Calling emergency services at 911 and Safety Engineer at 3450, this should always be done before attempting to extinguish the fire.
 7. Completing the Closeout section of the permit.

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IV. PROCEDURE: PRECAUTIONS AND REQUIREMENTS

- A. A Hot Work permit must be completed prior to initiating Hot Work and posted at the work area.
- B. The work process shall include:
 - 1. An assessment of the facility condition
 - 2. Preparation of the work area
 - 3. Hot Work activity
 - 4. Closeout
- C. Hot Work must be approved by the Authorized Person. For outside contractors the applicable Project Manager is the Authorized Person.
- D. Hot Work is permitted only in areas that are or have been made fire safe.
- E. Hot Work equipment shall be in good working condition and fully inspected.
- F. The Authorized Person shall perform a hazard assessment of the scheduled Hot Work and the work area.
- G. This hazard assessment includes the identification on the permit of any special precautions and controls and the fire watch requirements, which will be at least 60 minutes after completion and includes periodic checks for 3 additional hours.
- H. The floor around the area where the Hot Work is to be performed shall be swept clean and clear of debris for a radius of 35 feet.
- I. Combustibles shall be adequately protected or shielded, using flameproof materials. For torch cutting or welding, combustibles shall be relocated at least 35 feet horizontally from the work area. The edges of covers at the floor shall be tight to prevent sparks from going under the covers.
- J. Openings or cracks in walls, floors, or ducts within 35 feet of the site shall be tightly covered to prevent the passage of sparks to adjacent areas.

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- K. When torch cutting or welding is performed near combustible partitions or ceilings, fire-resistant guards shall be provided to prevent ignition.
 - L. Welding shall not be attempted on a metal partition, wall, ceiling, or roof having a combustible covering. Oil based paints and epoxies shall be no closer than three feet in any direction.
 - M. Fully charged and operable fire extinguishers shall be available in the Hot Work area. The use of wall mounted fire extinguishers, provided in the facility, is prohibited. Available portable fire extinguishers shall include as a minimum, one 4A:40B: C rated extinguisher within 40 feet of the activity.
 - N. Special precautions shall be taken to avoid accidental operation of automatic fire detection or suppression systems. If the possibility exists that automatic fire detection or suppression systems will be activated as a result of the work activities, then the automatic fire detection or suppression systems shall be isolated from the detectors located in the immediate area and fire protection impairment procedures are to be followed.
 - O. Nearby personnel shall be relocated or suitably protected from heat, sparks, slag, arc flashing, and infrared or ultraviolet radiation.
 - P. The Hot Work permit is valid for 24 hours.
- V. REVISION HISTORY
- A. July 20, 2010 – Revised figure 1
 - B. June 24, 2014 – I. Added “If Hot Work cannot be conducted safely it shall not be performed. Removed “If an area is found not to be “fire safe” these inspections will be conducted more frequently. The Safety Officer will determine the time and frequency of the inspections. III.C.7. Added “Reporting equipment defects and discontinuing its use until it has been repaired or replaced”. Renamed Safety Engineer to Safety Officer throughout the document. Removed Figure 1.
 - C. January 18, 2017 – Changed Approver from Roxann Forkan to Jeff Rosenfelt. Section II. Added hyperlink to the Hot Work Permit template.