



# TEXAS TECH UNIVERSITY HEALTH SCIENCES CENTER EL PASO

## Operating Policy and Procedure

### TTUHSC EL PASO Policy for Hot Work Performed Outside a Designated Area and/or Temporary Operation

This policy applies both to internal TTUHSC El Paso employees as well as any contractor(s) who perform or supervise hot work activities in an existing building, new construction in existing building, or in a building addition. This procedure does not cover such activities as cooking, the use of electric soldering irons, autoclaves, Bunsen burners or other lab equipment. This procedure does not apply to unoccupied buildings under construction.

#### A. Hot Work Management Process

This policy recognizes two types of work processes and the difference in fire hazard potential between the two. These processes are:

- **Hot Work Performed by Contractors** – This includes all construction and demolition activities including all project related work performed by an outside Contractor. The Contractor must properly control Hot Work operations and ensure that all Hot Work is performed in compliance with FM Global Hot Work Management or an equivalent Contractor Hot Work program. The Contractor Hot Work program must address and meet all required Fire Hazard Controls outlined in section C of this Attachment (TTUHSC El Paso OP 75.16 Attachment E). The Contractor Supervisor/Superintendent is responsible for properly scheduling and securing a **Contractor Access and Hot Work Notification Form (Attachment F)** prior to any Hot Work. For work requiring plant outages other than silencing of the bells, this request should be made 7 days in advance. All other notifications should be made two working days in advance. The Contractor Supervisor/Superintendent is responsible for consulting with PM and/or TTUHSC El Paso Fire Marshal for any Contractor Hot Work that cannot be modified to eliminate all potential sources of ignition. By authorizing hot work on TTUHSC El Paso property, the contractor assumes total responsibility for properly controlling Hot Work operations. On site hot work should not be performed if the work can be avoided or performed in a safer location.
- **Permit Required Hot Work Performed by TTUHSC El Paso Employees** – This includes daily maintenance and construction activities (example: soldering copper pipe). In most cases, TTUHSC El Paso employee activities do not present the level of hazard of contractor's activities and are usually performed by TTUHSC El Paso personnel very familiar with their work environment, the hazards of the work, emergency procedures, and appropriate safety controls.

A Hot Work Permit must be issued for any temporary operation performed by a TTUHSC El Paso employee that might produce high heat, sparks, and/or open flames. The operations include but are not limited to the use of open flames, compressed gas, or supplied fuel burning, brazing, cutting, grinding, soldering, thawing pipe, torch applied roofing, and welding. On site hot work should not be performed if the work can be avoided or performed in a safer location.

The Permit Authorizing Individuals (PAI) for this type of work must be trained in FM Global Hot Work Management and the use of fire extinguishers and must comply with the FM Global Hot Work Permit System for all hot work.

**B. Hot Work Roles & Responsibilities (Work Performed by TTUHSC El Paso employees)**

<p>TTUHSC El Paso Permit Authorizing Individuals (PAI)</p>	<p>The <b>PAI</b>'s primary responsibility is to inspect Hot Work sites prior to the start of Hot Work operations using the checklist found on the permit form and to ensure that <b>all</b> applicable precautions on the FM Global Hot Work Permit have been taken prior to allowing the start of any hot work.</p> <ul style="list-style-type: none"> <li>• The <b>PAI</b> will obtain a Hot Work Permit from TTUHSC El Paso Safety Services or Operations and Maintenance designee.</li> <li>• The <b>PAI</b> will designate an employee to serve as fire watch.</li> <li>• The <b>PAI</b> will verify that an extinguisher is available in the immediate area where hot work is being performed.</li> <li>• The <b>PAI</b> will ensure that a Fire Watch is scheduled and maintained for at least <b>60 minutes</b> following work.</li> <li>• After completing the work, the 60 minute fire watch, and the 3 hour monitoring period, the <b>PAI</b> will sign the completed permit and return a copy to TTUHSC El Paso Safety Services or Operations and Maintenance designee.</li> <li>• By signing and accepting the permit, the employee agrees to abide by all the terms and conditions in this procedure as stipulated on the permit. TTUHSC El Paso Safety Services and Fire Marshal will perform periodic audits of the worksite and reserve the right to stop work activities as unsafe conditions warrant.</li> <li>• The <b>PAI</b> must be trained in FM Global Hot Work Management and the use of fire extinguishers and must comply with the FM Global Hot Work Permit System for all Hot Work.</li> </ul>
<p>TTUHSC El Paso Hot-Work Operator (HWO)</p>	<p>The <b>HWO(s)</b> are the individual(s) performing Hot Work operations. The <b>HWO</b>'s primary responsibility is to safely perform Hot Work.</p> <ul style="list-style-type: none"> <li>• The <b>HWO</b> must always obtain a Hot Work Permit before beginning Hot Work.</li> <li>• The <b>HWO</b> must ensure that combustible materials are not in the vicinity of work.</li> <li>• The <b>HWO</b> must safely handle hot work equipment to prevent the endangerment of life and property.</li> <li>• The <b>HWO</b> must be trained in FM Global Hot Work Management and must comply with the FM Global Hot Work Permit System for all Hot Work.</li> </ul>
<p>TTUHSC El Paso Fire Watch</p>	<p>The Fire Watch is posted to monitor the safety of Hot Work operations and watch for fires (even during breaks and meal times). The Fire Watch's principal responsibility is to maintain the Hot Work area in a fire-safe condition.</p> <ul style="list-style-type: none"> <li>• The Fire Watch must be aware of the inherent hazards of the work site and of Hot Work.</li> <li>• The Fire Watch must have an extinguisher ready and must be familiar with the facility, procedures for sounding an alarm in the event of a fire and turning in such an alarm immediately when necessary.</li> <li>• The Fire Watch remains in the Hot Work area for at least <b>60 minutes</b> following Hot Work completion and carefully inspects work and adjacent areas for smoldering fires. The inspection extends to floors above and below the work and adjacent rooms.</li> <li>• After the 60 minute watch, the Fire Watch signs the permit and informs the PAI.</li> <li>• The Fire Watch must be trained in FM Global Hot Work Management and the use of fire extinguisher and must comply with FM Global Hot Work Permit System for all Hot Work.</li> </ul>

TTUHSC El Paso Physical Plant	<p>The TTUHSC El Paso Physical Plant Principle responsibility is to properly control Hot Work operations and to ensure that all Hot Work is performed in compliance with TTUHSC El Paso OP 75.16 and FM Global Hot Work Management program. Physical Plan Management is responsible for:</p> <ul style="list-style-type: none"> <li>• Insuring that the Hot Work Policy outlined in OP 75.16 is adapted and enforced.</li> <li>• Consulting with Safety Services as questions arise.</li> </ul>
TTUHSC El Paso Project Manager (PM)	<p>The TTUHSC El Paso PM's principle responsibility is to Schedule contractor performed Hot Work and notify appropriate campus personnel of Hot Work being performed on TTUHSC El Paso premises. The PM is responsible for:</p> <ul style="list-style-type: none"> <li>• Ensuring distribution of Contractor Access and Hot Work Notification Form (Attachment F) prior to commencement of contractor performed Hot Work. Distribution list to include Texas Tech Police, Building Operations and Maintenance, and TTUHSC El Paso Fire Marshal.</li> <li>• Ensuring Outage Request Form (Attachment G) has been provided to Plant Operations if job will require a system outage including silencing of the alarm audible system.</li> <li>• Consulting with TTUHSC El Paso Fire Marshal for any contractor Hot Work that cannot be modified to eliminate all potential sources of ignition</li> </ul>
Safety Services in Conjunction with TTUHSC El Paso Fire Marshal and Risk Management	<p>The principle responsibility of Safety Services (in conjunction with the TTUHSC El Paso Fire Marshal) is to ensure that all hot work documentation, processes, and training programs meet the intent of the FM Global Hot Work Management Program and are developed in accordance with NFPA Standards. Safety Services is responsible for:</p> <ul style="list-style-type: none"> <li>• Periodically auditing hot work processes.</li> <li>• Supporting FM Global Hot Work Management training.</li> <li>• Supporting fire extinguisher training program.</li> <li>• Providing clarification and direction on NFPA standards and FM Global Hot Work Management questions as they arise.</li> </ul>

C. Hazard Controls for Performing Hot Work on TTUHSC El Paso Premises:

Fire Watch	<p>A fire watch is required for all Hot Work activities covered by this policy. The Fire Watch must have an operable extinguisher ready and must be familiar with the facility, procedures for sounding an alarm in the event of a fire and turning in such an alarm immediately when necessary. The Fire Watch remains in the Hot Work area for at least <b>60 minutes</b> following Hot Work completion and carefully inspects work and adjacent areas for smoldering fires</p>
Fire Hazard Controls	<p>In addition to general good housekeeping practices (rapid removal of construction debris at least daily) the following controls must be utilized when performing Hot Work activities:</p> <ul style="list-style-type: none"> <li>• Hot Work shall only be performed in properly permitted areas</li> <li>• Hot Work shall not be attempted in areas not permitted, in the presence of flammable materials (e.g. gasoline, thinner, etc.), or in the presence of explosives or explosive atmospheres.</li> <li>• Hot Work shall not be attempted in sprinkled buildings where such protection has been disabled without approval from the TTUHSC El Paso Fire Marshal or owner designated representative.</li> <li>• Hot Work shall not be attempted on partition, wall, ceiling, or roof that has a combustible covering or insulation, or on walls or partitions of combustible sandwich-type panel construction.</li> </ul>

Fire Hazard Controls cont.	<ul style="list-style-type: none"> <li>• Hot Work that is performed on pipes or other metal that is in contact with combustible walls, partitions, ceilings, roofs or other combustibles shall not be undertaken if the work is close enough to cause ignition by conduction. Other controls may be employed such as products designed to dissipate the heat transferred.</li> <li>• If Hot Work is to be performed on enclosed equipment, the equipment must be cleaned of all combustibles and purged of flammable liquids/vapors. Pressurized vessels, piping and equipment should be removed from service, isolated, and vented.</li> </ul>
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<b>Procedure for Hot Work Performed by TTUHSC El Paso Employees.</b>	
<b>1</b>	Any TTUHSC El Paso employee serving as a <b>PAI</b> , <b>HWO</b> , or Fire Watch must be trained in FM Global Hot Work and the use of fire extinguishers and must comply with the FM Global Hot Work Permit System for all hot work. Permits are good for one day only, and are limited to one job site. In order to ensure that fire safe conditions are maintained on TTUHSC El Paso premises, jobs requiring hot work over several days
<b>2</b>	Prior to beginning any hot work, a Hot Work Permit must be completed. Depending on campus location, permits may either be located in Safety Services or Physical Plant.
<b>3</b>	The PAI must follow the FM Global Hot Work Permit instructions and meet the required precautions checklist for all jobs requiring hot work. If all required precautions on the permit checklist cannot be completed, the <b>PAI</b> must not proceed with the work. Any exception must be approved by the TTUHSC El Paso Fire Marshall or owner designated representative prior to beginning Hot Work.
<b>4</b>	After ensuring compliance with all required precautions, the <b>PAI</b> will complete Part 1 of the Hot Work Permit. By signing the permit, the <b>PAI</b> is verifying that the location has been examined, that all precautions checked on the Required Precautions Checklist have been taken to prevent fire, and that the <b>HWO</b> indicated in the "Name of Person Doing Hot Work" field is trained in FM Global Hot Work and the use of fire extinguishers and will comply with the FM Global Hot Work Permit System for this job.
<b>5</b>	After completing the Hot Work Permit, the <b>PAI</b> will provide Part 2 (the back copy) to the <b>HWO</b> performing the job. The Hot Work Permit must be posted in a visible place within the work area.
<b>6</b>	The <b>PAI</b> must ensure that the Fire Watch is equipped with a suitable extinguisher, that the Fire Watch is trained in the use of this equipment, and that the Fire Watch is trained in sounding an alarm in the event of a fire or turning in an alarm immediately when necessary. The <b>PAI</b> must ensure that a Fire Watch is posted in adjoining areas, above and below as necessary. The <b>PAI</b> must ensure that a Fire Watch is maintained for <b>60 minutes</b> following hot work (including breaks and lunches) and that the area is monitored for 3 hours after the job is completed.
<b>7</b>	After the work has been completed, the 60 minute fire watch has been completed, and the work area and all adjacent areas to which sparks and heat might have spread were inspected and found fire safe, the Fire Watch will sign the Hot Work Permit and leave it posted in a visible place within the work area.
<b>8</b>	After the work area has been monitored for 3 hours following hot work and found fire safe, the <b>PAI</b> will complete a final checkup. After verifying that the location is fire safe, the <b>PAI</b> will sign the Final Checkup field on the Hot Work Permit and return the completed Hot Work Permit to the permit log attendant (either in Safety Services or FO&M). All Hot Work Permits must be correctly completed and returned to TTUHSC El Paso permit log attendant for record retention.