

## Hot Work – Are You Protected

The National Fire Protection Association (NFPA) estimates that approximately 6 percent of all fires in industrial properties have been caused by improper procedures or equipment use during hot work operations. How can you reduce this per cent? Establish a Hot Work permit system.

**What is How Work?** Hot work is defined as any operation that generates heat, sparks or flame. Unfortunately, most industries cannot eliminate heat, sparks and flames while conducting business. Thus, a Hot Work Permit Systems needs to be established.

**The common reasons for fires caused by cutting, welding and hot work operations are:**

- inadequate preparation of work site;
- defective equipment;
- outside contractors failing to comply with "hot work" precautions;
- poor housekeeping;
- conducting operations in areas where the sprinkler protection is shut off; and
- failure to maintain fire watches or to provide adequate fire extinguishing equipment.

**Potential Issues:**

The less hot work is performed, the more important it is to have an established program because employees may be unfamiliar with the hazards and the precautions they must take. When a large number of permits are issued regularly, the permit process may become a formality. The permit may be issued without a careful assessment of the involved area to verify necessary precautions are being taken.

Many companies find themselves faced with a major fire because they trusted their facility to a contractor who "must know what they are doing or they would not be in business." Approximately one-third of the fire losses that occur are caused by outside contractors. Contractors must be closely supervised. All rules and regulations that apply to the employees should be equally applicable to any contractors. In addition to written contracts: Only select contractors who have properly trained personnel and who have an awareness of the magnitude of the risks involved. Advise contractors about any flammable materials or hazardous conditions and where special precautions must be taken.

**Hot Work permits need to be completed for all Hot Work that will be taking place outside of designated Hot Work (non-permit required) areas.** Management needs to designate a Hot Work Supervisor to oversee the work to be completed. The Hot Work Supervisor shall make sure that all fire precautions have been taken.

Fire watches shall be provided to extinguish any fires that may start. All areas within 35 feet of the Hot Work area must be evaluated for potential hazards. Move combustible and flammable materials at least 35 feet away from the Hot Work if possible. If not, provide protection to keep the flammable materials from catching fire. Be careful when working around walls and ceilings. Remove and combustible materials from enclosed equipment. If the tank previously contained flammable materials prohibit Hot Work until it has been completely cleaned and purged, inerted, and verified vapor free by combustible gas detectors.

Taking Hot Work for granted can happen in your facility. This occurred at a chemical facility I worked at. Several Hot Work operations were conducted every day. The Hot Work permit was completed but it became so routine to perform the importance of the work was diminished. Do not let Hot Work become routine at your facility. Conduct refresher training, talk to your employees, provide proper Hot Work equipment and personal protective equipment.

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