Do I Need A Fire Safety Plan?

Jobsite fires are more common than you might think. Thousands of construction fires break out each year for a variety of reasons, resulting in devastating property damage, personal injury and even death. Construction fires are often caused by carelessness, like throwing a lit cigarette butt on the ground, unmanaged hot work, or improperly stored combustibles and chemicals. It’s human nature to think these things won’t happen to us, but statistics tell a different story. As contractors, it’s our responsibility to create and implement an effective Fire Safety Programs to keep our crews safe and protect our projects. More importantly, we need to make the time to train our crews to practice preventive measures, and deal with fires quickly when they do break. Fires can double in size every minute, so extinguishing a fire when it starts is key to minimizing injury and damage.

Starting A New Project?

Firehouse

Before each construction project begins learn the location of the closest firehouse and put their number in your mobile phone making it easy to find. Pass this number along to your crew and make sure they enter the number in their phones.

Site Evaluation

Evaluate the site before work begins and determine which areas present the highest risk of fire, and which types of extinguishers you will need on-hand in those areas.

Temporary Alarm

Many contractors set up a temporary alarm warning system. This doesn’t need to be costly or complicated. Manual alarms such as air horns work perfectly. When choosing a temporary alarm system make sure it can be heard over the operation of heavy equipment. Place these devices in the main areas of the site so they are easy to access and use by all workers, then explain to your crew what to do and where to go if they hear an alarm.

Training Your Crew

As soon as you begin construction on a new site train your crew on the emergency plan.

Be sure to cover these important topics:

1. How to deal with a fire if one breaks out
2. Identifying the 5 types of fires
3. How to choose and use the right extinguisher
4. Recognizing and using the Temporary Fire Alarm system
5. Emergency exits and safety zones: where your crew should report in case of an emergency

NOTE: It is always a good idea to conduct an actual fire drill to confirm everyone understands the emergency plan.
Identifying Fire Types and Extinguishers

**Ordinary Combustibles:** Wood, Paper, Rubber, Fabrics, and many Plastics

**Flammable Liquids and Gases:** Gasoline, Oils, Paint, Lacquer and Tar
Electrical: Fires Involving Live Electrical Equipment

Combustible Metals: And Combustible Metals and Metal Alloys
Keep in mind that **Multipurpose Extinguishers** can be used on different types of fires and will be labeled with more than one class, like A-B, B-C or A-B-C.
How To Use An Extinguisher (P.A.S.S.)

Schedule an extinguisher training day so your workers have a chance to actually use an extinguisher.

The most common method for extinguisher use is the P.A.S.S. technique.

**Pull:** Pull the pin. This will also break the tamper seal.

**Aim:** Aim low, pointing the extinguisher nozzle (or its horn or hose) at the base of the fire.

*NOTE:* Do not touch the plastic discharge horn on CO2 extinguishers, it gets very cold and may damage skin.

**Squeeze:** Squeeze the handle to release the extinguishing agent.

**Sweep:** Sweep from side to side at the base of the fire until it appears to be out. Watch the area. If the fire re-ignites, repeat steps 2 - 4.

Just because they’ve had verbal and visual training does not guarantee your workers know how to actually **USE** an extinguisher. There is nothing more effective than live **on-the-job training** where your crew has a chance to put out a real (controlled) test fire. If someone has a problem using an extinguisher it’s better to address any issues in a testing environment - rather than an actual fire.

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**Extinguisher Selection Guide**

To provide the best protection of life and property from fire, it is critical that the proper extinguisher selection be made. The classification and rating of an extinguisher are vital pieces of information for
making this selection.

The National Fire Protection Association (NFPA) has established the requirements for the number, size, placement, inspection, maintenance, and testing of portable fire extinguishers. These requirements are contained in NFPA 19, “Standard for Portable Fire Extinguishers.”

Within this standard, it is stated that the selection of fire extinguishers for a given situation is determined by the following:

- The character and size of the fires anticipated to be encountered
- The construction and occupancy of the property to be protected
- The ambient temperature of the area where the extinguisher will be located
- Other factors that may dictate the selection of a particular type of extinguisher

### Placement/Accessibility Of Extinguisher

<table>
<thead>
<tr>
<th>Fire Classification</th>
<th>Class A</th>
<th>Class B</th>
<th>Class C</th>
<th>Class D</th>
<th>Class K</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum Travel</td>
<td>75 Feet</td>
<td>50 Feet</td>
<td>In accordance with the Class A or B hazard it is protecting</td>
<td>75 Feet</td>
<td>30 Feet</td>
</tr>
<tr>
<td>Distance To Fire</td>
<td>Maximum area that one extinguisher can protect and meet the 75 ft. rule = 11,250 sq. ft.</td>
<td>Maximum area that one extinguisher can protect and meet the 50 ft. rule = 5,000 sq. ft.</td>
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<tr>
<td>Extinguisher</td>
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</tbody>
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### One And Done!

Remind your crew that extinguishers are designed to deal with small fires. If the contents of ONE EXTINGUISHER is not adequate to squelch a fire, that means the fire has grown beyond your ability to control it. You should call the fire department immediately. One and Done is a best practice for gauging the severity of a fire to minimize damage and keep your workers safe.

### Storing Combustible Materials

Many construction fires are related to combustible liquids and gases. Properly storing these materials plays a large role in overall jobsite safety. Store all volatile liquids, gases and chemicals in certified storage cabinets and containers.
Designate a special area for these combustibles, as far away as possible from potential sources of ignition, and only grant access to those employees that have been trained to handle volatile materials. Since this is a potential risk area you’ll want to keep one of your Fire Alarms nearby, as well as a chemical spill kit, fire extinguishers and any other fire fighting equipment.

**Regulate Open Flames**

If any workers will be preparing food onsite, discourage cooking with any burners or open flames. Microwave cooking is low risk. If you need to burn off waste materials have them moved off-site prior to burning. If working in adverse conditions or cold weather requiring heaters, consider using drum heaters or even space heaters (anything without open flames). Be careful not to place any heaters near any combustibles.
digging deeper

For more info on Fire Safety in construction check out these links:

Preventing construction fires
3 Steps to Jobsite Fire Safety