

## Construction site fire prevention — best practices

A common misconception is that metal and concrete structures cannot be damaged by fire. The fact is, when an uncontrollable fire rages, steel can deform and concrete can scorch, spall and deteriorate.

Effective **fire** prevention and suppression measures include but are not limited to:

- Establish a fire prevention, mitigation, suppression and response policy as an element of your construction site safety plan. The plan should include extinguisher training and location, as well as contact information for the nearest responding fire department, station and location of hydrant.
- If in an area that is not served by 911, include the emergency services telephone number on fence signage and include it in safety materials and meetings.
- Meet with local fire department authorities to familiarize them with your construction project and your contact information.
- Establish a stop-work authority policy.
- Use fences, lighting, cameras and security patrols to prevent arson and detect fires or hazardous conditions.
- Establish and enforce a no smoking policy on the construction site.
- If desired, establish a smoking permitted area that is at least 25 feet from any structure or construction process, flammable liquids or gasses, combustibles goods, materials or equipment.
- Smoking area should be equipped with a self-extinguishing ash can capable of extinguishing combustion and a portable fire extinguisher. A trash receptacle is not recommended in this area.
- Flammable liquids and gasses should be stored in an approved flammables cabinet or in accordance with the National Fire Protection Association (NFPA) and other applicable codes and standards.
- Deploy, mount and identify the location of ABC (or appropriate class) portable fire extinguishers on all levels of the structure and insure there is no more than 75 feet of unobstructed travel between extinguishers.
- Brief all contractors on the location of the fire extinguishers and paths of egress.
- At minimum, establish a monthly fire extinguisher inspection practice and require that discharges are reported and discharged fire extinguisher are recharged.
- Identify and establish fire prevention practices for hazardous environments appropriate to the hazard.
- Establish, utilize and enforce a hot work permit program. Per OSHA 1917.152, hot work means riveting, welding, flame cutting or other fire- or spark-producing operation.
- Hot work shall not be performed in a confined space until a designated person has tested the atmosphere and determined that it is not hazardous.



*The information contained in this service bulletin was obtained from reliable sources. However, UFG Insurance accepts no legal responsibility for the correctness or completeness of this information.*

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- Require contractors performing hot work to maintain a portable fire extinguisher at their work location in addition to the extinguishers on the construction site premises.
- Construction site should be free of excess materials, trash and waste products.
- Construction site should be policed throughout the day, increasing housekeeping and reducing fire hazards.
- Contractors should be required to maintain a work environment free of fire hazards or mitigate them.
- Waste material and trash dumpsters should be utilized and placed at least 25 feet from the structure, be easily accessible for collection and collected regularly to avoid overflowing.
- Chemicals should be disposed of in accordance with manufacturer's instructions.
- If the structure is equipped with a fire alarm, smoke, ionization, heat or flame detection, detectors should not be covered or the system placed out of service until an action plan has been established including length of disconnection.
- If a structure is equipped with an automatic fire sprinkler system, the sprinkler system should not be disabled and the sprinkler heads should not be obstructed.
- If either the fire alarm or automatic fire sprinkler system is to be disabled, a continuous fire watch should be established while the system(s) is disabled. If the structure is occupied after hours by persons, such as a residential facility, the 24-hour continuous fire watch must be established.
- Temporary power taps and extension cords should not be overloaded and should be equipped with ground fault protection.
- Electrical grounds should not be removed or bypassed except under the guidance of an appropriately trained, licensed and insured professional.
- Electrical equipment should be maintained in good condition (no exposed wire, ground removed, etc.).
- Electrical equipment should be disconnected or powered down at the end of the day, if possible.
- Lightning prevention should be employed, if appropriate, and should never be disconnected, except under the guidance of an appropriately trained, licensed and insured professional.
- Gasoline and compressed gas fueled tools and equipment should not be operated inside a structure unless there is no alternative.
- Gasoline fueled tools and equipment should have the fuel source isolated.
- Gasoline and compressed gas fueled tools and equipment should not be stored inside the structure.
- Open flame heat environmental heat sources should be discouraged.

It is an established best practice to utilize several (if not all) of these prevention measures concurrently to lower your exposure to a fire loss. Construction site fire prevention and mitigation is a large part of insuring that your project does not fall victim to construction shutdowns, delays and financial consequences because of arson or disregard of fire prevention and mitigation practices.

Be sure to let your UFG Risk Control consultant know if we can offer additional support.

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