

Mulch and Landscape Fire Prevention

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Introduction

Why Mulch Fires Are on the Rise and Potential Solutions

Mulch fires in recent years have increased in frequency and severity resulting in large property losses, business interruption, bodily injury and loss of life.

Typically applied after shrubs and ground covers are planted, mulch material is chosen for aesthetic appeal, color, cost savings, weed reduction, dust abatement and soil moisture retention.

It is not uncommon for many businesses, apartment or condo building managers, and homeowners to show pride of ownership by beautifying the exterior of their homes and businesses with mulch.



Why Are Mulch Fires on the Rise?

Once thought to be confined to desert, draught-ridden and wildfire areas, mulch fires are occurring in areas of the country that would have previously been less of a concern.

One factor contributing to the increased number of mulch fires has been the prohibition of indoor smoking enacted by state and local governments and private businesses throughout the country. In particular, the

general public and employees are no longer able to smoke inside of buildings or break rooms, forcing them to smoke outside and thus moving this fire exposure to the exterior of the building.

Even when receptacles are provided, smokers often discard lighted smoking materials, including matches, into the landscaped areas as they enter or leave a building. This has been proven to be the major source of ignition for many mulch fires. For this reason, additional measures should be taken at your home or business to reduce the fire exposure.

Other seasonal and geographic factors – such as below-average rainfall, extremely dry conditions, abnormally high winds, and weathering of mulch over time due to exposure to heat or direct sunlight – increases the likelihood of serious property damage from mulch fires.

Example of a Recent Loss in the United States

In April 2014, a customer of a fast food store located in the Upper Midwest discarded a cigarette butt while entering the building to pick up his food. The cigarette butt fell into the mulch bed near the store's entrance, catching the previous summer's weathered landscape wood chips on fire.

The fire quickly spread to the siding (EIFS – Styrofoam with stucco-like coating) affixed to the exterior of the building. Despite efforts by employees with fire extinguishers and the local fire department, the building was severely damaged by fire, water and smoke.

The store will not be in operation until repairs are completed. Estimated repair time is expected to take approximately six to eight months. The total loss expected for both property and business interruption is currently estimated at nearly \$2Mn.

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The insured is planning to reopen their store at the same location using only non-combustible landscaping materials. By the time they are able to reopen, they face the possibility of loss of their customer base, loss of key employees, and damage to their reputation - all as a result of a small, stray cigarette butt in their mulch bed.

Potential Applications and Solutions

There are significant differences in commonly used landscape mulch, such as variables in ignition rates and ease of extinguishing once on fire. For example, ground rubber tires can take longer to ignite, but once on fire, they very rapidly produce flames and dense smoke and can be difficult to extinguish. Wood chips are quicker to ignite but can be easier to put out than burning rubber.

Environmental conditions in your local area also play a part – exposure to heat, direct sunlight, rainfall and availability of daily lawn sprinklers, to name a few.

Landscapers do not have to resort to using inorganic materials such as brick chips and gravel as ignition-resistant ground cover if proper precautions are taken, regardless of what type of organic mulch is used.

Prevention Tips

To reduce the potential for a mulch fire:

- Keep landscaped mulch beds moist, particularly during hot, dry conditions
- Have grounds maintenance crews increase surveillance in the afternoon, when fires are more likely to occur
- Provide proper receptacles for smoking materials at all entrances to buildings and designated smoking areas for both guests and employees
- Make employees aware of designated smoking areas

and the risks associated with smoking close to the building, including the improper disposal of smoking materials

- Use a non-combustible container when disposing of the contents of cigarette trash receptacles. Do not mix cigarette trash with other combustible items
- Do not use mulch at building entries, high-traffic areas, designated smoking areas or when EIFS and/or wood siding are present
- Provide a minimum 18-inch clearance with aggregate or other non-ignitable material between landscaped mulch beds and combustible building materials. Use noncombustible mulch such as rock or pea gravel around the gas meter and next to the combustible portions of the structure
- Provide proper clearance for electric devices such as decorative lights by following the manufacturer's instructions. Use only the manufacturer's recommended size and wattage for yard light bulbs
- Use only electrical devices and cords listed for outdoor use, and follow the manufacturer's specifications
- Consider replacing landscaping mulch with decorative stone. Stone may have a higher initial investment but does not require the upkeep and regular replacement of organic mulches
- Do not pile mulch too deeply (over a few inches) because it could spontaneously combust

Please check with your local fire authority for guidance on the best types and use of mulch in your area, as well as compliance for applicable codes in your particular location.