

# Risky Business

## What You Need To Know About...

### Solid Fuel Appliances

Restaurants are taking advantage of solid fuel appliances that use wood, charcoal or coal to develop unique smoky, barbecue flavors. But are they taking the proper precautions to protect their facilities from the unique exposures and hazards posed by solid fuels?

#### Examples of Solid Fuel Appliances



Wood-burning Ovens



Smokers



Rotisseries



Pit Barbecues



Charbroilers

#### Who is using solid fuel appliances?

Solid fuel appliances are becoming more prevalent in all types of restaurants.



Pizzerias



Southern Barbecue



Brazilian Grills

#### Electric & Gas Appliances

VS

#### Solid Fuel Appliances

##### Fire Suppression



**45 seconds**

The amount of time to suppress a fire involving gas and electric appliances



**15-30 minutes**

The amount of time it takes to sufficiently cool wood, charcoal and coal in a fire event using an automatic fire suppression system

##### Cooking Temperatures



**350°F to 450°F**



**500°F to 1,200°F**

#### Benefits of Cooking with Solid Fuels



Wood, charcoal and coal is appealing to restaurants as it develops **stronger, smokier flavors** than their gas or electric counterparts.



Solid fuels are more **readily available and cheaper** than gas or electric.

#### Hazards



##### Creosote buildup

This is a highly flammable substance that forms when solid fuels are used for cooking. Creosote adheres to the interior ventilation system and becomes a severe fire hazard if the ductwork is not cleaned properly.



##### Unattended Operation

Solid fuel appliances, such as wood-burning ovens, are often left running during non-business hours due to the amount of time it takes to reach optimal cooking temperatures.



##### Fuel Storage

Wood, charcoal and coal can create a severe fire hazard if stored within close proximity to cooking appliances.



##### Sparks and Embers

Solid fuels create sparks and embers when heated, creating an additional fire hazard.

#### Protection



##### Fire Suppression Systems

Similar to traditional cooking appliances, an automatic suppression system for solid fuel is required.

Suppression systems for solid fuel appliances use a combination of water and surfactant to cover the fire with a foam blanket, create a cooling effect and wet the surrounding combustibles and minimize flame spread.



##### Cleaning

Regular maintenance and cleaning dramatically reduces the potential for fire.

Professional cleaning services should be retained to clean all interior surfaces of the ventilation system.

Proper cleaning requires scraping, pressure washing and steam cleaning the interior surfaces.



##### Ventilation Systems

A separate ventilation system specifically for solid fuel appliances is required and includes a Class 1 hood, duct and exhaust fan.