Examples of Solid Fuel Appliances

- Wood-Burning Ovens
- Smokers
- Rotisseries
- Pit Barbecues
- Charbroilers
- Pizzerias
- Southern Barbecue
- Brazilian Grills

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?

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.
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Hazard

- 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 thick blanket, creating a cooling effect and wetting the surrounding combustibles to minimize flame spread.
- Cleaning
  - Regular maintenance and cleaning dramatically reduces the potential for fire.
  - Professional cleaning services should be retained to clean the interior surfaces of the ventilation system.
- Ventilation Systems
  - A separate ventilation system specifically for solid fuel appliances is required to remove smoke, heat and carbon monoxide.