FIRE EXTINGUISHING SYSTEMS FOR COMMERCIAL COOKING

Loss Control Bulletin

Cooking equipment that produces grease-laden vapors must be protected by a fire extinguishing system. The system shall include an automatic fire-extinguishing system installed over the cooking equipment as the primary means of protection. Fire extinguishers shall be used as a secondary means of protection.

Fire extinguishing systems must also protect grease removal devices, hood exhaust plenums and duct exhaust systems.

Fire extinguishing systems must meet the UL 300 standard. Systems designed to meet this standard are much more capable of extinguishing fires due to the use of higher efficiency equipment and vegetable oils. The higher efficiency equipment is well-insulated (therefore it cools more slowly), heats up faster, and operates at higher temperatures. Vegetable oils burn at a higher temperature than animal-fat based oils, producing a hotter fire that is more likely to re-ignite once the initial fire is extinguished.

If changes are made to the cooking equipment (repositioning or replacing) with an existing fire extinguishing system, the system must be re-evaluated after the changes to ensure the system is still in compliance with the UL 300 Standard.

Activation of System

The system should be automatically activated during a fire. A fusible link will melt at a certain temperature which will activate the system. There should also be a manual pull device which can be used to activate the system. This manual pull should be located between 42 and 48 inches off the floor, shall be readily accessible, and must be located along the path of egress. There should be one manual pull located between 10–20 feet from the cooking equipment along the path of egress.

If a fire occurs and the automatic means has not activated, the manual pull device should be activated by an employee, if it can be done safely. The fire extinguishing system must be activated before a fire extinguisher is used to combat a fire. Employees should be trained on how to properly activate the system and how to use a portable fire extinguisher.

Once the system is activated, all sources of fuel and electricity that produce heat to the cooking equipment protected by that system should automatically shut off. Shut-off devices on the equipment shall require a manual reset.

An alarm or visual indicator must be provided to indicate that the system has been activated.

This scenario should be addressed in your organization’s Emergency Action Plan so that employees will know how to respond in this type of emergency.
INSPECTION AND MAINTENANCE OF THE FIRE EXTINGUISHING SYSTEM

The fire extinguishing system shall be inspected and serviced at least every six months by the manufacturer or its authorized installation or maintenance company to assure that the system will function properly in the event of a fire. A system inspection tag should be provided that indicates the date of the inspection/service and the initials of the service person.

Fusible links of the metal alloy type must be replaced at least every six months. Fusible links other than metal alloy must be inspected, cleaned, or replaced at least annually. When a fusible link is replaced, it must be destroyed so that it cannot be used again.

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