



Delta Fire & Emergency Services

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FIRE EXTINGUISHING SYSTEMS FOR COMMERCIAL COOKING EQUIPMENT

From the Office of the Fire Commissioner of British Columbia

Background

Fires in commercial kitchens can be extremely hazardous. They can spread rapidly and cause personal injury, loss of business, and extensive damage to surrounding buildings. Over the last 10 years in British Columbia, approximately 700 fires have occurred in commercial kitchens, causing \$24 million damage and 60 injuries.

Reliance is placed upon commercial kitchen extinguishing systems to function in the event of a fire and minimize damage. The standards set by recognized testing agencies and the listing of fire protection equipment provide the best assurance that extinguishing systems will work under all conditions.

Previous standards for commercial cooking extinguishing systems were established approximately 30 years ago. Since then, changes occurring in the type of cooking equipment and cooking methods have created the potential for fire hazards not considered when the previous standards were developed. Accordingly, existing extinguishing systems tested to the previous standards may not be capable of controlling and extinguishing fires occurring in current commercial cooking operations.

New standards include the UL300 Standard "Fire Extinguishing Systems for Protection of Restaurant Cooking Areas" established in 1994 and the ULC/ORD-1254.6 "Fire Testing of Restaurant Cooking Area Fire Extinguishing Systems Units" established in 1995. These standards reflect the need for improved fire protection systems in commercial kitchens.

On March 17, 1998, the Office of the Fire Commissioner issued Interpretation Bulletin IB 014, which required fire extinguishing systems for commercial cooking equipment to be upgraded to meet UL 300 - ULC 1254.6 Standards.

An implementation date of December 31, 2000, was established to provide a phase-in period for compliance to the new requirements in British Columbia. This was intended to allow the owners of commercial kitchens and the fire protection industry sufficient time to plan for, and upgrade existing systems to meet these new requirements.

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General Upgrading Information

The British Columbia Fire Code provides the authority for upgrading existing fire safety systems to protect building occupants and reduce fire hazards. The Fire Code specifies that owners are responsible for carrying out the provisions of the Code, which includes required safety upgrading.

In each jurisdiction, Local Assistants to the Fire Commissioner are responsible for ensuring compliance with the requirements of the Fire Code. When upgrading is required, the goal is to bring existing buildings up to current Fire Code requirements, wherever possible. As this is not always achievable, alternatives are sometimes accepted to provide a comparable degree of fire and life safety.

Fire prevention programs within each jurisdiction are dependant upon available resources and safety upgrading priorities. Local fire authorities inspect existing buildings at varying intervals and where necessary, identify fire protection systems that require upgrading. When upgrading is required, schedules for compliance within reasonable time frames are usually established. If necessary, Local Assistants to the Fire Commissioner may issue orders to ensure compliance.

Over the past three years in British Columbia, extinguishing systems for new commercial cooking operations have been manufactured and installed to the new standards. Through cooperation with local fire authorities, the insurance industry, and the fire protection industry, many owners of existing commercial kitchen operations have also upgraded their systems to meet the new requirements. Owners of commercial cooking operations that have not upgraded their extinguishing systems to the new standards should be aware of their responsibility to meet the Fire Code requirements.

As Local Assistants to the Fire Commissioner in each respective jurisdiction are responsible for enforcing the requirements of the Fire Code, local compliance programs may vary. Ultimately it is expected that all commercial kitchens will be upgraded to meet the new standards. However, varying schedules for compliance beyond the December 31, 2000, implementation date may be established at the discretion of the local fire authority.

Depending upon fire prevention resources and safety upgrading priorities, local fire authorities may enforce the upgrading requirements for all types of commercial equipment (including deep fryers, grills, and ranges). Alternately, they may choose to concentrate initially on those kitchens with deep fat fryers (considered to be the most hazardous), and address other types of cooking operations at a future date. Factors considered by the local fire authorities when evaluating the degree of hazard and determining schedules for compliance may include: frequency of use, size of operation, exposure hazards, occupant safety, general housekeeping, and system maintenance.

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Additional Considerations for Kitchen Owners

The upgrading requirements are not meant to place an undue hardship on owners of commercial kitchens. Therefore, it is recommended that kitchen owners who have not anticipated the costs of compliance over the previous three-year phase-in period, should consult with their local fire authority and develop a plan for compliance within a reasonable time-frame.

Notwithstanding the enforcement policies and upgrading schedules adopted by local fire authorities, owners should be aware that replacement parts for some existing systems are likely to become scarce. There may be issues regarding insurance coverage for non-conforming systems. There are also potential liability concerns for kitchen owners who do not meet the new requirements.

There may also be delays in obtaining the services of qualified personnel capable of carrying out the system upgrading. Provided some agreement is reached to show intent for compliance within a reasonable time-frame by the owner (such as a signed service contract or letter of intent), then this should be acceptable to the local authority.

Labelling of Upgraded Systems:

Extinguishing systems that have been upgraded to meet the new UL300 - ULC/1254.6 Standards must be labelled for inspection by local fire authorities. Fire protection service companies performing upgrades of existing systems shall provide labels that meet the following criteria:

- Labels shall certify that the system has been upgraded to the appropriate standard.
- Labels are only to be installed by fire protection technicians qualified to perform the necessary system upgrade.
- Labels shall be affixed to the front of extinguishing cylinders in a location readily identifiable to local fire authorities.
- Labels must be made of permanent material that self destructs if removed from the cylinder.
- Labels shall include the following information
 - UL/ULC Identification Number for the System
 - Month and Year of Upgrade
 - Name of Company and Phone Number 3

All installations should be completed by a trained certified technician.

For further information on these and other requirements within the Municipality of Delta contact Fire Protection Services branch of the Delta Fire & Emergency Services at 604-946-8541 or email at info@deltafire.ca