

Commercial Kitchen Exhaust Requirements

Overview of ventilation control and fire protection for Food Service Operations.

Purpose

This bulletin is intended to provide an overview of the City of Penticton requirements that pertain primarily to ventilation control and fire protection for Food Service Operations. The following includes information on when permits are required and emphasizes owner/user responsibilities for the design, installation and maintenance of kitchen ventilation system in the City of Penticton.

Although some smaller operations may not require full commercial ventilation and fire suppression systems, consideration for the health of the workers and patrons must be taken into consideration under Part 6 of the BC Building Code.

These guidelines are jointly issued by the Building Department and the Penticton Fire Department to create one standard. They apply to both new and alterations to existing installations.

Work involving gas and electrical alterations or new installations shall contact Technical Safety BC for the necessary permits www.technicalsaftybc.ca

Please note that Interior Health should also be contacted as soon as possible regarding new and alterations to existing food service operations www.interiorhealth.ca.

Reference

[Building Bylaw 2018-01](#)

[BC Building Code](#) 2018, Part 3, 6 and 9

[BC Fire Code 2018](#)

[NFPA 96 \(2014\)](#)

Definition

“Domestic Hood” means a metal hood designed for use over domestic cooking equipment. Typically, a domestic hood is installed per 9.32.3.6. and 9.32.3.8. and has filters for grease removal.

“Ecology Unit” means a device used for the cleaning of exhaust air and is listed in conformance with ULC-S647-05 “Standard for Exhaust Cleaning and Recirculation Assemblies for Commercial and Institutional Kitchen Exhaust Systems”.

“Type I Hood” means a hood designed in conformance with NFPA 96 (Annex A 3.3.31) and constructed per Chapter 5. Typically, the hood is externally welded so that it is liquid-tight and is of 18 gauge steel or 20 gauge stainless steel.

“Type II Hood” means a hood designed for heat and steam removal and other non-grease applications. It is generally seamed. A condensate hood with an exhaust is a type II hood.

Implementation

The classification of the cooking operation being proposed will determine the requirements for permitting use. There are 5 different types of cooking operations;

Class 1: Cooking Operations (grease-laden vapours)

A Class 1 Cooking Operation is defined as any cooking process which produces significant smoke or grease-laden vapours, and includes any equipment which has been designed by the manufacturer to be able to remove significant smoke or grease-laden vapours, except where specifically approved under another Class.

Class 2: Cooking Operations (steam and heat removal)

A Class 2 Cooking Operation is defined as any cooking equipment or process which produces significant steam or heat but does not produce grease-laden vapours.

Class 3: Cooking Operations (Dwelling Units and limited use)

A class 3 Cooking Operation is defined as any cooking equipment or process where limited smoke and limited grease-laden vapours are produced such as in a single-family home. This Class of Cooking Operation typically utilizes a domestic range. Class 3 does not include commercial food operations.

Class 4: Cooking Operations (self-contained)

A Class 4 Cooking Operation is defined as cooking equipment listed by an accredited certification organization (ULC, CUL or ETL) to ventilate into the room. These devices typically have their own fire suppression and grease filtering systems.

Class 5: Cooking Operations (no hood)

A Class 5 Cooking Operation is defined as cooking equipment where a hood is not provided. Products from the cooking operation may be removed by the room ventilation. Class 5 does not include cooking procedures which produce grease laden vapours, significant steam or significant heat.

Alterations to Existing Systems

This means the repair, alteration, relocation or extension of the cooking equipment exhaust system. The information required is the same as for a new installation.

- All equipment must be listed and certified for use in Canada, rated for commercial use, and installed as per manufacturer's specifications. The use of existing or used equipment should be reviewed by a registered professional in consultation with the Fire Department.
- Relocating existing appliances within existing exhaust and fire suppression system may compromise the effectiveness of the system. Consultation with a certified Suppression Engineer should be completed prior to alteration.

The BC Building Code and NFPA96 require that make-up air be provided for all exhaust system. BC Building Code requires that when make-up air is introduced from outdoors to occupied parts of the building in the winter a means of tempering the air to maintain the indoor design temperatures shall be provided.

Permit Requirements

A Building Permit will be required for all Class 1 and 2 Cooking Operations, all other types of Cooking Operations (Class 3 -5) will require approval from the Fire Department Fire Prevention Division. Electrical and Gas permits will also need to be obtained through Technical Safety BC.

Up-Grade for Existing System and regulations to mandatory upgrading of existing systems is regulated by the City of Penticton Fire Department. Please contact the Fire Department, Fire Prevention Division at 250-490-2300.

Have questions? We're here to help. Please contact the Building Department at 250-490-2571 or buildinginfo@penticton.ca for more information.