

January, 2013
BUILDING DIVISION

REQUIREMENTS FOR SPRAY COATING FACILITIES

Spray coating operations involving the use of combustible dry powders, flammable liquids or combustible liquids are classified as a Hazardous Process in the BC Fire Code (BCFC). A building permit is required for the installation of spray booths or the use of spray equipment in a building.

Permit Submission and Procedures

Signed and sealed drawings by a professional engineer shall be submitted with a building permit application for a Tenant Improvement to show the construction, ventilation, electrical, and fire protection features associated with the spray coating operation.

The plans shall be drawn to an indicated scale and shall include:

- type of occupancy (e.g. woodworking, automotive repair, artificial marble, etc.);
- floor plan of demising walls, all walls and doors within the suite to show egress routes, all equipment, spray booths, storage rooms and cabinets for combustible liquid storage,
- mechanical plans for all rooms and spray booths;
- cross-section of a spray booth and ventilation system from floor to roof;
- type of fire protection systems;
- the data placard which is to be posted in the spray area; and
- all other information to demonstrate compliance with applicable sections of NFPA 33 (Spray Applications Using Flammable or Combustible Materials), and Rules 20-402 to 20-414 of the BC Electrical Code.

The data placard (see Attachment #1) is intended to define the range of products permissible for use under the building permit, and to determine the specific requirements for room construction and ventilation. The daily supply quantity, storage quantity and storage location of each flammable and combustible material used in the spray operation shall also be listed on the data placard. The data placard shall be signed and sealed by the professional engineer.

Schedule B from the professional engineer shall be submitted for "Mechanical" and "Fire Suppression" design aspects of the project.

An approved fire safety plan in conformance with BC Fire Code Section 5.1.5. is required to be in place prior to operating a spray coating facility. The fire safety plan must be prepared by the building owner or operator, and submitted directly to the Surrey Fire Prevention Office at 8767 - 132 Street. (The Surrey Fire Department charges a fee for reviewing fire safety plans). Alternatively, a notarized letter of commitment regarding the preparation of a Fire Safety Plan shall be supplied by the owner and included in the submission package.

Plumbing, and sprinkler work shall be performed by qualified tradespersons and will require separate permit applications. Electrical work must be performed by a registered electrical contractor under electrical permit.

The fabrication and installation of ductwork, and the design and installation of automatic fixed fire suppression systems, other than sprinklers (such as dry chemical or carbon dioxide), shall be performed by qualified trained personnel under the supervision of the professional engineer of record. These systems will not require a separate permit application but are included under the building permit for the spray coating facility.

Upon completion of the works authorized by the building permit and its related trade permits, and before final approval will be granted, Schedule C-B shall be submitted by the professional engineer of record.

Building Construction

Spray coating operations shall be located in a building conforming to Chapter 4 "Location of Spray Application Operations" of NFPA 33. The construction and design of spray booths shall conform to Chapter 5 of NFPA 33. Spray rooms shall be constructed and separated from surrounding areas of the building by construction assemblies having a fire resistance rating of 1 hour (5.1.6. of NFPA 33). A clear space of not less than 915 mm (3 ft.) shall be maintained on all sides and above the spray booth unless the spray booth is located closer than 915 mm (3 ft.) to a 1-hour rated interior wall or ceiling assembly or a non-combustible exterior wall or roof assembly, provided that the spray booth can be maintained and cleaned. Ventilation and exhaust systems shall comply with Chapter 7 "Ventilation" of NFPA 33. All spray areas shall be protected with an approved automatic fire protection system conforming to Chapter 9 "Protection" of NFPA 33. The storage, handling and mixing of flammable and combustible liquids for the spray operation shall conform to either Chapter 8 of NFPA 33 (if within the spray area) or to Section 4.2 of the BC Fire Code (if outside the spray area).

Attachment #1

SPRAY COATING DATA PLACARD

Date: _____

Building Permit No. _____

Site Address: _____

Type of Spray Facility: (Room or Spray Booth) _____

Type of Operation: (Automotive, woodworking, etc.) _____

Drying Method: _____

Approved Products

Name	Flash Point (°C)	Class (I, II, etc.)	Quantity (L)		Storage Location (cabinet, mixing room, etc.)
			<i>1-Day Supply</i>	<i>Storage</i>	