

COMPLIANCE EVALUATION		Y	N
Evidence of compliance	<ul style="list-style-type: none"> BCBC Permit & PEng Schedule C-B sign-off 		
Spraying outdoors	<ul style="list-style-type: none"> NFPA-33 not applicable 		
Small portable spraying equipment that is not used repeatedly in the same location.	<ul style="list-style-type: none"> NFPA-33 not applicable 		
Use of aerosol products in containers up to and including 710 mL (24 ounces) capacity that are not used repeatedly in the same location	<ul style="list-style-type: none"> NFPA-33 not applicable 		
Spray application of noncombustible materials	<ul style="list-style-type: none"> NFPA-33 not applicable 		
Spray application of flammable / combustible materials continuously or intermittent	<ul style="list-style-type: none"> NFPA-33 applicable 		
Retroactivity	<ul style="list-style-type: none"> NFPA-33 reflects a consensus of what is necessary to provide an acceptable degree of protection applicable when an existing situation is unacceptable 		
LOCATION			
Location	<ul style="list-style-type: none"> Shall not be conducted in any building that is classified as an assembly, educational, institutional, or residential occupancy, unless they are located in a room that is separated both vertically and horizontally from all surrounding areas by construction having a fire resistance rating of not less than 2 hours. The room is protected by an approved automatic sprinkler system designed and installed in accordance with NFPA 13 All parts accessible for cleaning 		
CONSTRUCTION			
GENERAL			
Walls / doors /ceiling	<ul style="list-style-type: none"> Non-combustible / limited combustible Surface smooth 		
Floor	<ul style="list-style-type: none"> Non-combustible material, limited-combustible material, or combustible material that is completely covered by non-combustible material 		
Sheet metal	<ul style="list-style-type: none"> Single-skin assemblies shall be no thinner than 1.2 mm (0.0478 in.), <u>and</u> each sheet of double-skin assemblies shall be no thinner than 0.9 mm (0.0359 in.). 		
Aluminum	<ul style="list-style-type: none"> NOT Permitted 		
Structural sections	<ul style="list-style-type: none"> Permitted to be sealed with a caulk or sealant to minimize air leakage 		
CONSTRUCTION - SPRAY ROOM			
Construction assemblies	<ul style="list-style-type: none"> Fire resistance rating of 1 hour. 		
Egress	<ul style="list-style-type: none"> Spray booths / spray rooms – egress complaint with BCBC 		
SEPARATION FROM OTHER OPERATIONS			
Distance <u>OR</u> FRR	<ul style="list-style-type: none"> 915 mm (3 feet) minimum FRR 1-hour minimum 		
Clear space	<ul style="list-style-type: none"> Not less than 915 mm (3 ft) maintained on all sides and above the spray booth, and kept free of any storage or combustible construction. 		
Vision / observation panels	<ul style="list-style-type: none"> Heat-treated glass, laminated glass, wired glass, or hammered-wired glass, sealed to confine vapors, mists, residues, dusts, and deposits to the spray area 		
	<ul style="list-style-type: none"> Separated from the fixture to prevent the surface temperature of the panel from exceeding 93°C (200°F). 		
	<ul style="list-style-type: none"> Panel frame and method of attachment shall be designed to not fail under fire exposure before the vision panel fails. 		

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VENTILATION			
General	<ul style="list-style-type: none"> Concentration of the vapors and mists in the exhaust stream of the ventilation system does not exceed 25 percent of the lower flammable limit. Where overspray filters – provide visible gauges, audible alarms, approved interlocks, or an effective inspection program to ensure that the required air velocity is being maintained Ventilation shall be kept in operation at all times while spray operations are being conducted and for a sufficient time thereafter to allow the vapors from drying coated objects or material and residues to be exhausted 		
Make-up air	<ul style="list-style-type: none"> An adequate supply of clean make-up air shall be provided to compensate for the air exhausted from spray operations. The intake for make-up air located so that the air exhausted from spray operations is not recirculated Discharge points away from any combustible construction, unprotected opening within 25 feet 		
Routing of Exhaust Ducts	<ul style="list-style-type: none"> Ducts to exterior via most direct route Directed away from fresh-air intakes Discharge point at least 1830 mm (6 feet) from any exterior wall / roof 		
Recirculation of exhaust	<ul style="list-style-type: none"> Allowed for <u>unmanned</u> spray operations, particulate removed, exhaust airstream <25% LEL, listed equipment monitor LEL c/w/ alarm & shut-down <u>AND</u> all associated equip is approved. 		
Manifold ducts	<ul style="list-style-type: none"> Not permitted (see NFPA-33 exceptions) 		
FILTERS			
Construction	<ul style="list-style-type: none"> Non-combustible 		
Support frames and holders	<ul style="list-style-type: none"> Non-combustible 		
Readily removable	<ul style="list-style-type: none"> For cleaning 		
In place	<ul style="list-style-type: none"> During spray coating 		
SOURCES OF IGNITION			
Open flame	<ul style="list-style-type: none"> Open Flame 		
Electrical - Class I, Division 1	<ul style="list-style-type: none"> Flammable gas or vapor is present or might be present in the air in quantities sufficient to produce an explosive or ignitable mixture 		
Electrical - Class I, Division 2	<ul style="list-style-type: none"> flammable gas or a volatile flammable liquid is handled, processed, or used, but any flammable gas, vapor, or liquid is confined within a closed container or a closed system from which it can escape only in case of accidental rupture or breakdown <u>OR</u> An ignitable concentration of flammable gas or vapor is normally prevented by positive mechanical ventilation but might exist because of failure or abnormal operation of the ventilating equipment <u>OR</u> ignitable concentration of flammable gas or vapor might occasionally be transmitted from an adjacent Class I, Division 1 location, unless such transmission is prevented by positive pressure ventilation from a source of clean air and effective safeguards against ventilation failure are provided 		
Electrical - Class I, Zone 0	<ul style="list-style-type: none"> Ignitable concentration of flammable gas or vapor is present either continuously or for long periods of time. 		

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Electrical - Class I, Zone 1	<ul style="list-style-type: none"> An ignitable concentration of flammable gas or vapor is likely to exist under normal operating conditions, <u>OR</u> Might exist frequently because of repair or maintenance operations or because of leakage <u>OR</u> Breakdown or faulty operation of equipment or processes might release an ignitable concentration of flammable gas or vapor and might also cause simultaneous failure of electrical equipment in such a way as to directly cause the electrical equipment to become a source of ignition <u>OR</u> An ignitable concentration of flammable gas or vapor might occasionally be transmitted from an adjacent Class I, Zone 0 location, unless such transmission is prevented by positive pressure ventilation from a source of clean air and effective safeguards against ventilation failure are provided. 		
Electrical - Class I, Zone 2	<ul style="list-style-type: none"> An ignitable concentration of a flammable gas or vapor is not likely to exist under normal operating conditions, and if an ignitable concentration does exist, will exist only for a short period of time <u>OR</u> A flammable gas or a volatile flammable liquid is handled, processed, or used, but any flammable gas, vapor, or liquid is confined within a closed container or a closed system from which it can escape only in case of accidental rupture or breakdown of the container or system or in case of abnormal operation of the equipment. <u>OR</u> An ignitable concentration of flammable gas or vapor is normally prevented by positive mechanical ventilation but might exist because of failure or abnormal operation of the ventilating equipment <u>OR</u> An ignitable concentration of flammable gas or vapor might occasionally be transmitted from an adjacent Class I, Zone 1 location, unless such transmission is prevented by positive pressure ventilation from a source of clean air and effective safeguards against ventilation failure are provided 		
Electrical - Class 2	<ul style="list-style-type: none"> Area with combustible dust 		
Electrical devices in spray area	<ul style="list-style-type: none"> Suitable for Class I, Division 1; Class I, Zone 1; or Class II, Division 1 		
Electrical devices adjacent to open spray area	<ul style="list-style-type: none"> Located outside, but within 6100 mm (20 ft) horizontally and 3050 mm (10 ft) vertically, of an unenclosed spray area and not separated from the spray area by partitions extending to the boundaries of the area designated as Division 2 or Zone 2 shall be suitable for Class I, Division 2; Class I, Zone 2; or Class II, Division 2 locations, whichever is applicable. 		
Electrical devices adjacent closed-top, open-face or open-front booth or room, including light fixtures	<ul style="list-style-type: none"> Exhaust ventilation system is interlocked with the spray application equipment, then the Division 2 or Zone 2 location shall extend 1525 mm (5 ft) horizontally and 915 mm (3 ft) vertically from the open face or open front of the booth or room Exhaust ventilation system is not interlocked with the spray application equipment, then the Division 2 or Zone 2 location shall extend 3050 mm (10 ft) horizontally and 915 mm (3 ft) vertically from the open face or open front of the booth or room 		
Exhaust duct construction	<ul style="list-style-type: none"> Steel, or Other where sprayed material not compatible with steel Fire retardant material for powder coating permitted 		
Duct supported	<ul style="list-style-type: none"> Adequate material and spacing; not using bldg. components only (e.g. joists / truss) 		
Duct openings	<ul style="list-style-type: none"> provided with doors, panels, or other means to facilitate inspection, maintenance, cleaning, and access to fire protection devices 		
Exhaust fan / drives	<ul style="list-style-type: none"> Non-ferrous Motor outside of spray area Drive belt outside of spray area 		

		Y	N
FLAMMABLE MATERIALS			
Storage in Process Areas	<ul style="list-style-type: none"> Class I, Class II, and Class IIIA liquids stored in a storage cabinet not exceed 454 L (120 gal). Total aggregate volume of Class I, Class II, and Class IIIA liquids in storage cabinets stored in a single fire area shall not exceed 1362 L (360 gal). BCFC 		
Quantity	<ul style="list-style-type: none"> 1-day supply 		
Mixing	<ul style="list-style-type: none"> done only in a mixing room or in a spray area 		
Mixing Room	<ul style="list-style-type: none"> Non-combustible construction c/w minimum 1-hour FRR Mixing room shall not exceed 14 m² (150 ft²). Designed to contain a spill of the contents in the room. Provided with continuous mechanical ventilation capable of providing air movement of not less than 0.3 m³/min per square meter of floor area (1 ft³/min/ft²) or 4 m³/min (150 ft³/min), whichever is greater. The ventilation system shall be in operation at all times. Electrical area classification, the same as enclosed spray booths Provided with an approved automatic fire protection system. Provided with portable fire extinguishers 		
	<ul style="list-style-type: none"> Where a separate mixing room is provided and the mixing room is located adjacent to or within 1830 mm (6 ft) of an adjacent spray area or areas, the combined quantities of liquids located in the spray areas and the mixing room shall not exceed 454 L (120 gal). 		
	<ul style="list-style-type: none"> Where a separate mixing room is provided and the mixing room is located 1830 mm (6 ft) or more from an adjacent spray area or areas, the quantity of liquid permitted in the mixing room shall not exceed 80 L/m² (2 gal/ft²), up to a maximum of 1135 L (300 gal) 		
PROTECTION			
Automatic	<ul style="list-style-type: none"> Sprinkler, foam-water sprinkler, CO₂, dry chemical, or gaseous agent 		
Continuous Spray Application Operation – activation:	<ul style="list-style-type: none"> Activate a local alarm in the vicinity of the spraying operation Transmit an alarm signal to the facility's fire alarm system, if such a system is provided Shut down the coating material delivery system Shut down all spray application operations Stop any conveyors into and out of the spray area 		
Emergency shut-down	<ul style="list-style-type: none"> one or more manual emergency system shutdown stations shall be installed to serve each spray area. When activated, the stations shall accomplish at least the functions listed above. At least one such station shall be within ready access of operating personnel. If access to this station is likely to involve exposure to danger, an additional station shall be located adjacent to an exit from the area 		
Ventilation Systems	<ul style="list-style-type: none"> Air make-up systems and spray area exhaust systems shall remain functioning during any fire alarm condition. 		
Sprinkler protection	<ul style="list-style-type: none"> Extra hazard Group 2 Sprinkler protected by light cellophane bag Separate water control valve to isolate spray operation In Duct – 12 foot spacing maximum; 30 usgpm flow rate minimum, ordinary temp rating protected from freezing, access opening, 		
OPERATIONS – MAINTENANCE - TRAINING			
	<ul style="list-style-type: none"> See FSP 		