

What are they, and what can we legally do with them?

» by Jim MacDonald

“Location, location, location!” is the most important adage of the real estate industry. “Preparation, preparation, preparation!” is the most important adage of ours. Preparation refers to many things in our industry, from “preparing estimates” to the “paint prep” we perform on vehicles. This article discusses the latter, with the emphasis on

what constitutes a legal “prep station” in Canada today. As a guide, this article will be referring to NFPA 33, 2003 edition. This document was updated in November 2006, but the relevant guidelines for prep stations are still valid from the 2003 edition.

In body shops today, we see everything from old exhaust chambers with grated holes in the floor attached to exhaust fans to state-of-the-art, paint-and-cure, closed-top, open-face prep stations. Having a well-ventilated area dedicated to preparation is always a good idea. For sanding operations, this creates a better environment for our workers to be in.

Where we run into problems is when we use these same areas for priming. The moment we pull the trigger on the gun and begin spraying paint or primer, all the rules change.

In the 1990s, we started seeing prep stations, predominantly of European design, coming across the ocean for use in our shops. These stations had overhead plenums, exhaust systems, and, in some cases, curtain packages and lights. Our problems were solved. These stations provided booths without walls that did not impede the movement of

vehicles and yet were bright, clean areas in which our prep people could sand and prime vehicles prior to painting. These stations were installed in record numbers and became as common in shops as paint booths. We used them for both sanding and priming.

Until the year 2000, there were no guidelines or definitions for prep stations in NFPA 33, and we were at the mercy of local jurisdictions. In some cases, there were no problems, but in many there were. Many local authorities did not like spraying being done without walls! Therefore, an industry lobby was started in North America for the National Fire Protection Association to define prep stations and create guidelines that we could use for safe sanding and priming.

NFPA 33 is a document created by the National Fire Protection Association to guide local jurisdictions and health and safety bodies in North America on the proper use of various types of equipment. In our case, NFPA offers guidelines for the spray application of flammable or combustible materials by (1) compressed air atomization, (2) airless or hydraulic atomization, (3) electrostatic application methods,

Even with NFPA 33’s definitions, you must always remember that the local jurisdiction has the final authority.

The prep station has become a valuable piece of equipment in our shops, but make sure you know what you want it for and that it meets the appropriate codes before purchasing one.



Photos: Jim MacDonald

▲ Preparation Workstation: No dedicated makeup air or pressurized air supply. No spraying allowed.

▲ Limited Finishing Workstation: A dedicated makeup air and air supply system, curtains, and a dedicated exhaust system. Limited spraying allowed.

or (4) other means of atomized application. The actual title of the document is “NFPA 33: Standard for Spray Application Using Flammable or Combustible Materials.” It must be noted that although this document is often referred to as “the bible,” it is only a guideline. It is a very well recognized guideline (it is included as an appendix in most provincial building codes and fire codes), but it is still only a guideline. Fire codes vary across the provinces and states, and it is these local codes that are the final authority.

There are two formal definitions of Prep Stations found in NFPA33:

3.3.15.1 Limited Finishing Workstation: An apparatus that is capable of confining the vapors, mists, residues, dusts, or deposits that are generated by a spray application process that meets the requirements of 14.3, but does not meet the requirements of a spray booth or spray room, as herein defined.

3.3.15.2 Preparation Workstation: An enclosed, partially enclosed, or unenclosed power-ventilated apparatus that is used to control the dusts and residues generated by surface preparation activities, such as sanding. A preparation

workstation is not a limited finishing workstation, spray booth, or spray room, as herein defined.


When we look into the differences between the two, we learn that a Limited Finishing Workstation can be used for limited spraying (up to one gallon in any eight-hour period), provided it has a dedicated makeup air supply and air supply plenum, curtains or partitions that are noncombustible, a dedicated mechanical exhaust/filtration system, and an approved automatic extinguishing system. In contrast, a Preparation Workstation cannot be used for spraying, only sanding.

Even with NFPA 33’s definitions, you must always remember that the local jurisdiction has the final authority. We have run into cases where we have had to supply letters from the manufacturer or an independent engineer that a particular installation meets NFPA’s requirements and is in fact okay for spraying, especially in the case of materials that contain VOCs (volatile organic compounds).

One thing you can check when exploring purchasing this type of equipment is a valid listing. In Canada, the most recognized listing authority

is Intertek Testing Laboratories (ETL). Look for the ETLc (make sure the “c” is included) label on sales material, or ask the potential supplier. Also make sure the piece of equipment is listed for the purpose you intend to use it for (such as limited spraying). ETLc lists products for many different purposes, and sometimes a piece of equipment has an ETLc label but it does not cover the application you are looking for.

The prep station has become a valuable piece of equipment in our shops. If you are thinking of adding one to yours, make sure you know what you want it for and that it meets the appropriate codes before purchasing or installing it. No matter what you purchase, there is still a cost involved. Make sure the money is spent wisely.

Good luck with your preparation, preparation, preparation in your location, location, location. 

Background... Jim became North American Service Manager for DeVilbiss when they created separate Spray Booth Divisions in the late 1980s. He went on to become Canadian Sales Manager for DeVilbiss Spray Booth Products, which became Team Blowtherm in 1997. He spent 4 years with Team Blowtherm and joined Ontario Spray Booth as partner/sales manager in 2002, where he has been ever since.