



Woodworking Waste Management in Schools

A Series of Best Management Practices

Woodworking and finishing produces many types of waste that may be avoided if managed with pollution prevention techniques. Hazardous wastes, solid wastes and air emissions may be reduced or eliminated, improving working conditions, reducing regulatory burden, and ultimately saving money.

Health and environmental risks

Toxic air pollutants (TAPs) are chemicals such as toluene, methanol and xylene which evaporate quickly into the air and can cause adverse health effects. These solvents can be found in adhesives, thinners and stains. Volatile organic compounds (VOCs) are TAPs that react with sunlight to form ground-level ozone and have been linked to cancer and liver disease in humans. Breathing difficulties, headaches, fatigue and nausea are also common with prolonged exposure to VOCs.

Substitutions and safe alternatives

Alternative products are found to work just as well as historically used products. Making substitutions will, among other benefits, save schools money.

- Non-toxic water-based glues and adhesives are readily available.
- Harsh chemical paint strippers can be substituted with mineral washing soda, or a wide array of non-toxic or water-based products. Mechanical paint strippers are also a good option; many will heat the paint for easier stripping.
- Wood coating products are available as aqueous-based and low/non-VOC options.

Reuse and recycle for cleaning solvents

Used solvents can be reused and recycled. Solvents used for cleaning can be reused by allowing solids to settle out then carefully pour off solvent to use again. When completely spent, solvent recycling is possible with a distillation system. These units are available in various sizes, and can be utilized in-house or spent solvent can be shipped to an off-site recycler. Distillation greatly reduces the amount of waste generated, and the amount of solvent purchased.

Reducing Waste, Saving Money

- Saw dust and shavings can be sold/donated to farmers or pet stores for animal bedding, instead of thrown in the trash.
- Shop towels should be cloth instead of paper, so they can be laundered by an off-site service.
- Paper filters from spray booths can be replaced with plastic or metal that can be cleaned and used many times.
- Products should be ordered in correct quantities, and on an as-needed basis. This will reduce the amount of expired or unfinished materials that might otherwise be considered wastes.
- Vendors will have many alternatives; you just have to ask for them!



New Hampshire Pollution Prevention in Schools Project

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