

## Surface Coating Success Stories

There are multiple ways to successfully implement pollution prevention (P2) in surface coating operations. Below you will find four examples of businesses that have chosen to implement P2 programs, resulting in reduced air emissions and annual operating costs by \$600 - \$78,000.

### Overview of Operations

An Iowa manufacturer of heavy construction equipment took a comprehensive look at its painting operations and made a number of source reduction, technology and procedural changes that greatly affected its overall environmental impact.

### Switch Spray Application Equipment

A Colorado automotive body shop switched from applying solvent-based coatings with conventional air atomized spray guns to high volume low pressure (HVLP) guns with gravity feed paint cups. The transfer efficiency increased from 25-30% to 40-70%. After an initial capital investment of \$2,175 for the new guns, there has been a 25% decrease in the amount of coatings used. This represents a 25% reduction in VOC emissions and an overall cost savings of \$60,000 per year.

### Switch Gun Washer Solvent

A Portland automotive body shop switched from using MEK or lacquer thinner to a low-VOC solvent to clean their spray guns. They also used a recirculating gun washer to capture evaporative losses. This change has eliminated 660 gallons of MEK used in the past year, representing a direct material cost savings of \$9,600. VOC emissions have decreased from 480 grams per day to 0.64 grams per day, a 96% reduction. By no longer using MEK - a hazardous air pollutant that has a strong odor, employees and neighbors can breathe a little easier.

### Share Your Success...

If you have a P2 success story, we want to know about it. Spokane Clean Air wants to share P2 success stories with other businesses and communities.

For more information about surface coating and to share your story, please contact Spokane Regional Clean Air Agency, 477-4727 or [www.spokanecleanair.org](http://www.spokanecleanair.org).

*Stories courtesy of Oregon Department of Environmental Quality*

Switched From:	To:	By:	Resulting In:
Standard manual air spray guns	Air assisted, air-less electrostatic spray guns	Purchasing new guns	Increased transfer efficiency, reduced emissions, coatings saved
High VOC* coatings	High solids coatings	Working with its paint vendor	Lower VOC* emissions
Five general paint lines	Dedicated booths for high volume colors	Changing procedures	Less paint waste and cleaning solvent use

\*Volatile Organic Compounds

The facility also provided more training for paint operators to increase coating utilization. In addition to the results listed above, the amount of labor it takes to maintain the new system has been reduced. This facility has saved nearly \$78,000 per year in avoided hazardous waste disposal costs, materials purchase costs, and labor costs.

### Switch Coatings

A Portland manufacturer of commercial displays found a water-based coating that could replace its solvent-based coating for painting metal parts. The facility eliminated nearly all VOC emissions from the coating process, as well as nearly all acetone emissions for the cleaning process. In addition, nearly all hazardous waste generation and disposal was eliminated - about 110 gallons per month - resulting in a net savings of \$12,000 per year.

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