

# A Guide to Environmental Regulations for Colorado Surface Coating Operations

Surface coating is the process of applying paints or coatings to a substrate, such as metal, wood, or plastic, for decorative or protective purposes. Businesses that perform surface coating operations are subject to a variety of state and federal environmental regulations. This document provides an overview of the air, water, and waste regulations affecting Colorado surface coaters. Pollution prevention (P2) strategies designed to reduce regulatory requirements for surface coaters are also discussed.

There are 10 common types of surface coaters in Colorado. Specific regulatory requirements for each type of surface coating operation are discussed in supplements to this general guidance document. Contact the Colorado Department of Public Health and Environment (CDPHE) Small Business Assistance Program (SBAP) for an insert specific to your business type.



## AIR REQUIREMENTS

Surface coaters release volatile organic compounds (VOCs), hazardous air pollutants (HAPs), and particulate matter (PM) to the air while preparing surfaces, applying coatings, cleaning equipment, and mixing and storing paints and solvents. VOCs, HAPs, and PM are regulated air pollutants, making surface coaters subject to both federal and state air quality requirements. Air requirements commonly affecting surface coaters are

discussed in the following sections. Complete copies of all air quality regulations are available through the CDPHE Air Pollution Control Division (APCD) and downloadable at [www.cdphe.state.co.us/ap/stationary.asp](http://www.cdphe.state.co.us/ap/stationary.asp).

### **REGULATION NO. 3 – PERMITTING AND AIR POLLUTION EMISSION NOTICE REQUIREMENTS**

Under Air Regulation No. 3, many Colorado businesses must report air pollutant emissions by submitting an Air Pollution Emission Notice (APEN) to the APCD. Some businesses that submit an APEN also must obtain an air permit.

## Submitting an APEN

Most Colorado surface coaters are required to report air pollutant emissions by submitting an APEN to the APCD. APENs are required when annual emissions from the surface coating operation equal or exceed any or a combination of the following:

- 2 tons of VOCs per year
- 2 tons of PM per year
- As low as 50 pounds of a single HAP per year

APEN forms are available through the APCD and are downloadable at the APCD web page. Use the forms titled "Spray Paint Operations – Specialty APEN" and "APEN Addendum for Non-Criteria Reportable Pollutants (HAPs)" to report your VOC and HAP emissions. If you conduct sandblasting, use the forms "General APEN" and "Fugitive Particulate Emissions Control Plan for Sand Blasting Operations" to report PM emissions from sandblasting. APENs are valid for 5 years. If your APEN is more than 5 years old or your facility is operating under a new name or new ownership, it may be time to submit a new APEN to the APCD.

### **Types of Surface Coating Operations in Colorado**

- Automotive repair
- Fabric coating, printing, and dyeing
- Large appliances
- Metal can
- Metal coil
- Metal furniture
- Miscellaneous metal parts and products
- Paper and other webs
- Plastic parts and products
- Wood building products

## **Permitting Guidance**

"Reporting Your Air Emissions and Applying for Air Permits, Step-by-Step for Colorado Small Businesses" provides an overview of Colorado's air permitting process.

This document is available through the APCD Guidance Document Library [www.cdphe.state.co.us/ap/stationarylibrary.html](http://www.cdphe.state.co.us/ap/stationarylibrary.html)

## **Take Time to Read Your Permit!**

An Air Permit Includes...

- Recordkeeping requirements
- Limits on annual production
- Required control measures
- Key areas the operator needs to address
- Facility-specific requirements
- Paint or solvent-specific requirements

## **Obtaining an Air Permit**

Some Colorado surface coaters are required to submit an APEN *and* obtain an air permit. The APCD will use the information provided in the APEN to determine whether an air permit is required for your surface coating operation. If an air permit is required, the APEN will become part of your permit application package.

In Colorado, air permits are issued in two phases. The **Initial Approval** permit allows a business to construct the facility and begin operation. The **Final Approval** permit is issued after a business certifies that the facility is in compliance with the conditions of the Initial Approval permit.

## **Calculating Your Air Emissions**

In order to submit an APEN or show compliance with an air permit, surface coaters must be able to calculate and track air emissions. The guidance document "A Simple Guide to Calculating and Reporting Your VOCs and HAPs" provides an overview of this process. This document is available through the APCD Guidance Document Library at [www.cdphe.state.co.us/ap/stationarylibrary.html](http://www.cdphe.state.co.us/ap/stationarylibrary.html).

### **Surface coaters can calculate and track VOC and HAP emissions using one of three approaches:**

1. Surface coaters may determine their annual air emissions by obtaining ongoing VOC/HAP Reports from their paint or solvent suppliers or manufacturers. Where available, VOC/HAP Reports often are used to demonstrate compliance with permit requirements because they include information on the type and quantity of products used at the facility, the VOC and HAP content of each product, and the total amount of VOC and HAPs emitted by the facility each year.
2. Surface coaters may choose (or may be required) to perform their own air emission calculations on a monthly or even daily basis. These surface coaters often use electronic spreadsheets to track product purchase information, product chemical information (included on Material Safety Data Sheets [MSDS] or Certified Product Data Sheets [CPDS]), and to perform air emission calculations.
3. Auto body shops and surface coaters of metal parts and products may take advantage of streamlined procedures for calculating, tracking, and reporting air emissions. More detailed information on streamlined options for these types of surface coaters is provided in *supplements* to this general guidance document.

Your air permit will specify the type and frequency of your VOC and HAPs calculations and recordkeeping requirements. Take time to review and understand your permit requirements.

### **REGULATION NO. 7 - VOLATILE ORGANIC COMPOUNDS EMISSIONS**

Air Regulation No. 7 limits VOC emissions from all businesses in Colorado. Regulation No. 7 requires select businesses to reduce VOC emissions using Reasonably Available Control Technology (**RACT**). These requirements may include using low VOC or high performance coatings, High Volume Low Pressure (HVLP) spray guns, or other technology that will achieve a high degree of emission control for your operations. RACT requirements will be included in your air permit.

Regulation No. 7 also includes specific provisions that *significantly affect* surface coaters that manufacture new products (as opposed to refurbishing products) in the Denver-Metro area. In many cases, Regulation No. 7 limits the *content* of VOC allowed in certain coatings. For example, surface coaters that manufacture metal parts and products in the Denver–Metro area are not allowed to apply air-dried coatings with more than 3.5 pounds of VOC per gallon of coating as applied (e.g., mixed with reducers or thinner). Regulation No. 7 includes similar requirements for other types of surface coaters. Exemptions for surface coating operations are listed in the General Provisions of Regulation No. 7, Section IX.A.6. and under each type of surface coating operation, if applicable.

Take the time to review, understand, and be able to demonstrate compliance with Regulation No. 7. More detailed information on Regulation No. 7 as it applies to each type of surface coating operation is available through *supplements* to this general guidance document.

### **FEDERAL AIR COMPLIANCE REQUIREMENTS**

In addition to the state regulations described above, some very select Colorado surface coaters are subject to federal regulations called Maximum Achievable Control Technology (MACT) standards. MACT standards for surface coaters only apply to "major sources" of HAP emissions (25 tons per year total or 10 tons per year for a single HAP), which is why so few in Colorado are subject to this regulation. To determine whether MACT standards apply to your business, visit [www.cdphe.state.co.us/ap/mact.html](http://www.cdphe.state.co.us/ap/mact.html).

In addition to MACT, some very select Colorado surface coaters (e.g. metal can, metal coil, large appliances, metal furniture, and plastic parts for business machines) are also subject to federal regulations called New Source Performance Standards (NSPS). To determine whether NSPS applies to your business, visit [www.cdphe.state.co.us/ap/nsps.html](http://www.cdphe.state.co.us/ap/nsps.html). More detailed information on both MACT and NSPS requirements for surface coaters is available through supplements to this general guidance document.



## **HAZARDOUS WASTE REQUIREMENTS**

Surface coating operations that generate waste solvents, paints, paint filters, parts-cleaning solvents, used oil, used oil filters, or antifreeze may be subject to hazardous waste regulations implemented by the CDPHE Hazardous Materials and Waste Management Division (HMWMD). Hazardous waste (HW) management requirements become increasingly more stringent as

the amount of hazardous waste generated at your facility increases. For example, as the generation of HW increases, your business classification can change from Conditionally Exempt Small Quantity Generator (CESQG) to Small Quantity Generator (SQG) or Large Quantity Generator (LQG). The document titled "Guide to Generator Requirements of the Colorado Hazardous Waste Regulations" (downloadable at: [www.cdphe.state.co.us/hm/handbk01.pdf](http://www.cdphe.state.co.us/hm/handbk01.pdf)) provides an overview of HW management requirements for each classification of HW generator.

All surface coaters must identify the HW they generate and ensure that wastes are handled and disposed of properly. In addition, surface coaters that generate more than 25 gallons of HW per month (based on the density of the waste) must submit a notification form to the HMWMD.

### **Does Your Business Generate Hazardous Waste?**

APPROXIMATE QUANTITY OF WASTE GENERATED PER MONTH	YOUR BUSINESS CLASSIFICATION
220 pounds or ~25 gallons per month	Conditionally Exempt Small Quantity Generator (CESQG)
220 – 2,200 pounds or ~25 – 300 gallons per month	Small Quantity Generator (SQG)
>2,200 pounds or >250 gallons per month	Large Quantity Generator (LQG)

After submitting a notification form, you will be issued a unique EPA Identification Number used to identify your facility for HW management purposes.

All Colorado HW forms, regulations, guidance documents, and links for additional assistance are available through the HMWMD webpage at [www.cdphe.state.co.us/hm/hmhom.asp](http://www.cdphe.state.co.us/hm/hmhom.asp).

## **P2 Pays!**

### **Did You Know...**

High-volume, low-pressure (HVLP) guns provide a 40-65% transfer efficiency as compared to 20-45% for conventional air spray technology, thereby reducing up-front material consumption and back-end waste management and compliance costs.

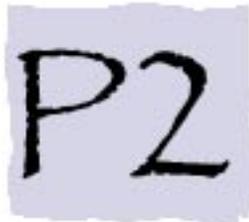
The use of Powder Coatings instead of solvents can minimize your environmental compliance requirements and possibly eliminate your need for an air permit.



## **WATER REQUIREMENTS**

**Wastewater:** Most surface coating operations are subject to pre-treatment regulations established by the CDPHE Water Quality Control Division (WQCD) and implemented by your local sewage treatment plant known as a Publicly Owned Treatment Works (POTW). You should always obtain permission from your local POTW before discharging industrial wastes, such as antifreeze, oil, and wastewater from washing vehicles, maintenance, or cleaning operations to the sanitary sewer system. The POTW may require you to install a sand trap or oil/water separator or meet other requirements.

**Stormwater:** Colorado surface coaters also may be affected by stormwater requirements. Unlike *wastewater*, which is discharged to a sanitary sewer system where it is treated by a POTW and then released, *stormwater* refers to the water leaving a business property that either permeates to groundwater or enters sewer drains and discharges directly to local water bodies. The WQCD regulates stormwater discharges by issuing permits under the Colorado Discharge Permit System (CDPS). Stormwater permits may require businesses to control and eliminate pollutants by developing and implementing a Stormwater Management Plan (SWMP). For more information on your water quality requirements, visit the WQCD website at [www.cdphe.state.co.us/wq/permitsunit/wqcdpmt.html](http://www.cdphe.state.co.us/wq/permitsunit/wqcdpmt.html).



## **POLLUTION PREVENTION TIPS**

P2 is reducing the generation of wastes or pollutants at the source through techniques such as rigid inventory control, good housekeeping, or the use of high transfer efficiency equipment and alternative coatings. Surface coaters can use P2 techniques to reduce waste management and production costs, lower risk and liability, and reduce regulatory burden. For more P2 tips and information, refer to the document "Pollution Prevention Ideas for Surface Coating," available through the APCD Guidance Document Library at [www.cdphe.state.co.us/ap/stationarylibrary.html](http://www.cdphe.state.co.us/ap/stationarylibrary.html).



## **Small Business Assistance Contacts**

The CDPHE SBAP and Generator Assistance Program (GAP) provide free services to small businesses seeking help in understanding and complying with environmental regulations. If you have questions on environmental regulations, visit our websites or call us at:

**SBAP:** 303.692.3175 or 303.692.3148 [www.cdphe.state.co.us/ap/sbap.asp](http://www.cdphe.state.co.us/ap/sbap.asp)

**GAP:** 303.692.3415 [www.cdphe.state.co.us/hm/gap/gaphom.asp](http://www.cdphe.state.co.us/hm/gap/gaphom.asp)