

US EPA ARCHIVE DOCUMENT

COMMUNITY INFORMATION SHEET



Could your family be affected?

EPA has developed an online pollution prevention tool for paints and coatings. Called The Coatings Guide™, this guide contains several tools to help users identify coatings with low VOC and hazardous air pollutant content that may be suitable for replacing existing paints or coatings.

— U.S. EPA

Spray Technique Analysis and Research (STAR®) training begins with an analysis of the spray technician's spraying technique through video footage. STAR® trainers introduce alternative spray techniques and equipment. The technician's performance before and after training is measured so that improvements are demonstrated.

— Iowa Waste Reduction Center



Reducing Air Pollution from: Painting and Coating Operations

Why do painting and coating operations need to reduce air pollution?

People who are exposed to toxic air pollutants at sufficient concentrations, for sufficient durations, may increase their chances of getting cancer or experiencing other serious health effects, such as reproductive problems, birth defects, and aggravated asthma.

Pollution prevention can reduce the impact of air pollution by using materials, processes, or practices that reduce or eliminate air pollution at the source.

Painting and coatings operations preserve, protect, and decorate many surfaces and products made from a variety of materials, including metal, wood, and plastics. Activities at painting and coating operations include glue and/or adhesive applications, paint or varnish application, and protective coating application, all of which may release pollutants into the air and may contribute to health concerns in the operation and in the community.

The best painting and coating operations implement pollution prevention strategies not only to help comply with federal, state, local, and Tribal laws but also to further minimize impacts on human health and the environment. Check with your state, local, and Tribal agencies for existing regulations.

What kinds of air pollutants may come from painting and coating operations?

- Painting and coating operations can produce emissions of toxic air pollutants.
- Lubricants, degreasers, and cleaners can release some toxic air pollutants and volatile organic compounds (VOC). Chemicals in these substances can react in the air to form ground-level ozone (smog), which has been linked to a number of

respiratory effects.

- While federal, state, local, and Tribal regulations limit the amount of emissions from painting and coating operations, dangerous releases of toxic air pollutants can occur if a painting and coating operation is not in compliance with regulations.

How can painting and coating operations help reduce air pollution?

Making changes in operation work practices can stop pollutants at the source and increase production efficiency. By evaluating and improving work practices, operations can decrease emissions, reduce production costs, and protect employee and public health.

Examples of changes in work practices that help reduce air pollution include:

Substituting Materials

- Use cleaners with low toxic air pollutant and VOC content.
- Use paint types with lower or no toxic air pollutants or VOC.

Changing Processes

- Change coating methods to ones that do not require spraying.
- Use enclosed or mechanical parts washing and gun washing systems.
- Reuse cleaning solution or solvent.
- Schedule color changes to minimize the amount of cleaning needed between colors.

Improving Spraying

- Train painters in proper spray application techniques to reduce emissions and enhance the quality of the paint finish.
- Replace old equipment with new and more efficient equipment, such as high-volume low-pressure (HVLP) spray, airless spray, air-assisted airless spray or electrostatic spray guns.

Lowering Emissions at the Source

- Open containers only when adding or dispensing materials.
- Use wet and dry filters in a spray booth to capture and control particulate emissions.

As a community, what can you do to help reduce air pollution from painting and coating operations?

Make Connections

- Get to know local painting and coating operation owners and operators. They know best about the materials and processes used in their business and the regulations with which they must comply.
- Keep local media aware of progress by sending them updates. Publicity can reward success and attract more public involvement.

Make a Plan

- One idea is to form a work group that includes local painting and coating operations to develop and

implement workable pollution reduction plans.

Locate Resources

- Use the “For Further Information” list below to find governmental and nonprofit contacts who can provide help with analysis, technical information, equipment, and funding.

Sponsor Training and Translation

- Small operations may need funding in order to attend or provide training.
- Improved skills lead to reduced paint usage and exposure for workers.

Reward Operations

- Use media connections to provide coverage for successful efforts. Positive publicity can mean increased business.
- Visibly displayed awards and certificates may also increase business.

For Further Information

- National Paint and Coatings Association: www.paint.org, (202) 462-6272
- EPA’s Sector Strategies Partnership Program for the Paint and Coating Sector: www.epa.gov/sectors/paintcoatings/index.html, (202) 566-2958
- Community-Based Projects: www.epa.gov/air/toxicair/community.html
- Community information, regional, state contacts: www.epa.gov/epahome/whereyoulive.htm
- Pollution prevention awards: State, local, and Tribal government agencies, universities
- Toxicity of paints and solvents: Paint or coating suppliers, Integrated Risk Information System (IRIS) (www.epa.gov/iris), Air Toxics Health Effects Notebooks (www.epa.gov/ttn/atw/hapindex.html)
- Training opportunities: Trade associations for painters and coaters.
- STAR® Painting Techniques: Iowa Waste Reduction Center: www.iwrc.org/programs/STAR.cfm, (800) 422-3109
- Paints and Coatings Resource Center: www.paintcenter.org
- The Coatings Guide™: www.cage.rti.org
- Solvent Alternatives Guide: www.sage.rti.org
- For more information, please see the Resources section of the Owner/Operator Information Sheet.

National Emission Standards for Hazardous Air Pollutants

- Auto and Light-Duty Truck Surface Coating Operations: www.epa.gov/ttn/atw/auto/autopg.html
- Large Appliance Surface Coating Operations: www.epa.gov/ttn/atw/lapp/lapplpg.html
- Magnetic Tape Manufacturing: www.epa.gov/ttn/atw/magtape/magtappg.html
- Metal Can Surface Coating Operations: www.epa.gov/ttn/atw/mcan/mcanpg.html
- Metal Coil Surface Coating Operations: www.epa.gov/ttn/atw/mcoil/mcoilpg.html
- Miscellaneous Metal Parts and Products Surface Coating Operations: www.epa.gov/ttn/atw/misc/miscpg.html
- Paper and Other Web Surface Coating Operations: www.epa.gov/ttn/atw/powc/powcpg.html
- Surface Coating of Plastic Parts and Products: www.epa.gov/ttn/atw/plastic/plasticpg.html
- Wood Building Products Surface Coating Operations: www.epa.gov/ttn/atw/wbldg/wbldgpg.html

