

US EPA ARCHIVE DOCUMENT

COMMUNITY INFORMATION SHEET



Could your family be affected?

About 287,000 tons of volatile organic compounds are emitted each year from the 50,000 auto body shops in the U.S.

— U.S. EPA

Switching from conventional to high-volume, low pressure (HVLP) spray guns and using proper spray techniques can save up to \$13,000 per year at a shop spraying 15 cars per week.

— U.S. EPA

EPA estimates that 20% of all volatile organic compound emissions from auto body shops occur during cleanup operations.

— U.S. EPA



Reducing Air Pollution from: Auto Body Shops

Why do auto body shops 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.

Auto body shops repair, repaint, and customize cars, trucks, and other vehicles. Their activities include sanding, cleaning, and painting, all of which may release pollutants into the air and may contribute to health concerns in the shop and in the community.

The best auto body shops implement pollution prevention strategies not only to 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, or Tribal agencies for existing regulations.

What kinds of air pollutants may come from auto body shops?

- Auto body shop operations can produce emissions of toxic air pollutants, including metals and diisocyanates.
- Paints, cleaners, and paint strippers can release some toxic air pollutants and volatile organic compounds (VOC). Chemicals in these substances can also react in the air to form ground-level ozone (smog),

which has been linked to a number of respiratory effects.

- Lead, chromium, and cadmium are metals that form particle pollution during sanding and welding. Breathing particle pollution can cause respiratory problems and other harmful health effects.
- Diisocyanates are toxic air pollutants emitted during painting operations. These compounds are a leading cause of occupational asthma.

How can auto body shops reduce air pollution?

Making changes in shop work practices can stop pollutants at the source and increase production efficiency. By evaluating and improving work practices, shops 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 less toxic materials. For example, use water-borne paints which minimize the need for cleaning solvents.
- Use alternative cleaners such as water-borne, alkaline, or microbial cleaners.

Training Operators in Skill and Safety

- Train technicians in proper spray application techniques to reduce emissions and enhance the quality of the paint finish.
- Training also will reduce worker exposure to toxic air pollutants.

34 out of 40 Philadelphia shops made significant pollution reductions by identifying and using the best work practices, technologies, and cost factors for each.

— U.S. EPA Design for the Environment

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Auto Body Shops

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Replacing Equipment

- Replace old equipment with more efficient equipment, such as high-volume low-pressure (HVLP) spray guns, ventilated sanders, and enclosed cleaning systems that reduce solvent and paint emissions.

As a community, what can you do to help reduce air pollution from auto body shops?

Make Connections

- Get to know local auto body shop owners and operators because 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 auto body shop owners and operators 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

- Improved skills lead to reduced paint usage and exposure for workers.
- Small shops may need funding in order to attend or provide training.
- For some ethnic minority groups, language may be a barrier. Sponsor translation of pollution prevention materials into languages commonly spoken by owners and employees.

Reward Shops

- Use media connections to provide coverage for successful efforts. Positive publicity can mean increased business.
- Present pollution prevention certificates to shops that reduce pollution.

Be an Informed Consumer

- Patronize shops that implement pollution prevention strategies.
- Check with your insurance company to see if they know of shops that practice pollution prevention.

For Further Information

- Automotive Service Association: www.asashop.org, (800) 272-7467
- National Automobile Dealers Association, www.nada.org, (800) 252-6232
- Automotive Aftermarket Industry Association: www.aftermarket.org, (301) 654-6664
- Community-Based Projects: www.epa.gov/air/toxicair/community.html
- Community information, regional, state contacts: www.epa.gov/epahome/whereyoulive
- Information specific to auto body shops: Best Practices and Outreach Kit, “Virtual Auto Body Shop” for cost calculations, equipment, technology & training information, access to sources of funding, and other assistance: www.epa.gov/dfe/projects/auto
- Painting techniques: Iowa Waste Reduction Center, 800-422-3109 and www.iwrc.org/programs/STAR.cfm
- Toxicity of paints and solvents: Paint suppliers, Integrated Risk Information System (IRIS) (www.epa.gov/iris), Air Toxics Health Effects Notebooks (www.epa.gov/ttn/atw/hapindex.html)
- Training opportunities: Automotive trade associations
- Pollution prevention awards: State, local, and Tribal government agencies, universities, example: www.deq.state.or.us/aq/Factsheets/04-NWR-009-EcoBizAuto.pdf
- Shops practicing pollution prevention: Auto insurance companies
- For more information, please see the Resources section of the Owner/Operator Information Sheet.

