



This fact sheet highlights opportunities in materials and practices that can help reduce waste in your shop.

Collision repair: reducing waste and costs

Collision repair generates many types of waste. Cutting the amount of waste generated at your shop can help you comply with regulations and save money.

Aerosols

Manufactured aerosol products are expensive. Use bulk supplies with refillable aerosol or pump sprays to save money. Many aerosol products—solvents, cleaners and lubes—are available in bulk. In addition, you avoid higher hazardous waste disposal and handling costs typically required for waste aerosols that fail to completely empty. Refillable aerosol containers pressurized with compressed air can be easily emptied or refilled.

Floor Drain Systems

Your trap or separator keeps oily washwater and spills out of the sewer where they can cause compliance and safety concerns. Do not let floor grates substitute for a dustpan when you sweep. When traps or separators fill with dirt and debris, they do not function. To prevent trap problems use screening at the trench outlet to trap dirt and debris. This keeps cleaning and maintaining floor trenches manageable. Routinely clean screens before months of accumulation signal maintenance needs. For more information see MnTAP's fact sheet Floor Drain Systems <www.mntap.umn.edu/vehicle/66-floordrains.htm>.

Gun Washing

Cleaning paint guns manually is time consuming, labor intensive, can expose harmful solvents and paints, and can generate significant quantities of solvent waste. An alternative is an automatic cleaning system. Automatic gun washers can reduce the solvent used and paint solvent waste generated by up to 80% compared to manual paint gun cleaning. Because automatic gun washers are sealed recirculation units, exposure to hazardous materials during solvent handling and from volatile organic compound (VOC) and hazardous air pollutant (HAP) emissions are greatly reduced.

For more information about automatic cleaning systems and a list of suppliers, see MnTAP's reference list Spray Gun and Equipment Systems Suppliers <www.mntap.umn.edu/paint/70-cleansystems.htm>. The Iowa Waste Reduction Center (IWRC) has developed the Gun Wash Unit Cost Calculator. <www.iwac.org/sbppc/costcales/gunwash.cfm>. The cost calculator requires you to enter the amount of solvent used at your shop per year, then it calculates your gun washer savings and payback.

Packaging

Shops accumulate piles of boxes and packaging from a variety of parts and supplies. Excess packaging fills your Dumpster, costing you money for hauling. When employees purchase parts locally ask for minimal packaging. For regular stocking, talk with your distributor about switching to reusable containers. Reusable containers save money on packaging purchase and disposal costs.

A lot of packaging material is recyclable. Check with your local government or county solid waste office to learn about business recycling opportunities in your area. In the Twin Cities area the Rethink Recycling Web site <www.rethinkrecycling.com> lists recycling opportunities for many materials. Also check out <recyclemoreminnesota.org>. Ask your recycler about crushing or baling high volume materials to increase the cash value of your recyclables.

Painting

Preparation and painting are critical activities in collision repair shops. No matter what preparation materials you use, proper washing before painting is essential.

Paint system compatibility, and equipment and supplier recommendations are key to an efficient painting process. Within the system standards are opportunities to prevent pollution. Use high-efficiency High Volume/Low Pressure (HVLP), or equivalent equipment and waterbased or low VOC and HAP materials to create a healthier

environment for employees, reduce regulatory compliance burden and save money on materials and disposal cost.

Painter technique is important for efficiently applying paint at the recommended mil build. If new guns are installed or you switch to a new paint system, partner with the vendor for the necessary setup and training. Periodic training for experienced painters is a good investment and is a new requirement for painters. See additional resources.

Solvents

Cleaning solvents are a mainstay of collision repair operations. The volume of waste solvent from a collision repair shop is often the reason for its waste classification size. Many solvents can be recycled—reprocessed and then reused. Solvent recycling is preferred to other disposal methods for minimizing adverse environmental effects. Distillation recycles simple solvents, reducing the total volume of solvent waste to a fraction of the total solvent used. Other recycling techniques include settling and filtration. If you have a large, continuous solvent waste stream distillation may be the best option. For more information about solvent recycling see MnTAP's fact sheet *Selecting a Still for On-site Solvent Recycling* <www.mntap.umn.edu/mach/62-still.htm>.

To help you determine if investing in a solvent still makes sense for your shop, the IWRC has developed the Solvent Distillation Cost Calculator <www.iwrc.org/sbppc/costcalcs/solvent.cfm>. The cost calculator requires you to enter the amount of solvent used at your shop in a year, then it calculates savings and payback.

Spills

Spills result in lost inventory and create waste. Use catch pans to minimize spills in your shop. Clean up liquids that do spill with liquid recovery methods such as a squeegee and dustpan. This will salvage as much of the product as possible. Use shop rags or absorbent material only after using a liquid recovery method. Liquid wastes are usually less expensive to dispose of than wastes containing sludge or solids like absorbents.

Wastewater

Any time liquids go down the drain caution is advised. Collision repair shops, especially in rural areas, must understand that water discharged on their property is subject to environmental rules and can easily contaminate local groundwater and the shops' own water supply.

Other Waste Sources

Check all areas of your shop and look in the Dumpster for sources of waste. For each waste found ask why it is in there and how can it be reduced or eliminated. Employees can be a great resource for identifying waste and developing elimination strategies. Talk with employees and encourage everyone to share their waste reduction ideas.

Additional Resources

Waste generator training. Attend a hazardous waste generator training to keep informed about the environmental requirements your shop must meet. Workshops are regularly held by Twin Cities county environmental programs and the Minnesota Pollution Control Agency (MPCA). A few hours of training can answer many of your questions. For more information contact your county program or the MPCA at 651.296.6300 or 800.657.3864.

Environmental regulations. The MPCA Small Business Environmental Assistance Program (SBEAP) is also available to answer questions about environmental regulations. For more information see <www.pca.state.mn.us/programs/sbap-sectors.html#auto>, or call 651.282.6143 or 800.657.3938. SBEAP is a nonregulatory unit at the MPCA aimed at assisting business with environmental compliance questions.

Federal requirements. A National Emission Standard for Hazardous Air Pollutants (NESHAP) had been enacted that affects collision repair shops. These federal requirements address paint booths, spray equipment, gun cleaning, spray technique and training, and reporting and record keeping.

The MPCA SBEAP can help you sort through these requirements. Also review the MPCA fact sheet "Air Quality Rules Affecting Autobody Shops with Paint Spraying Equipment" (Air Quality #5.13), <www.pcs.state.mn.us/publications/AQ 5-13.pdf> for detailed information.

Find links to additional information about some of the topics discussed above in the online version of this fact sheet at <mntap.umn.edu>.



For More Information

MnTAP has a variety of technical assistance services available to help Minnesota businesses implement industry-tailored solutions that maximize resource efficiency, prevent pollution, increase energy efficiency, and reduce costs. Our information resources are available online at <mntap.umn.edu>. Please call MnTAP at 612.624.1300 or 800.247.0015 for personal assistance or more information about MnTAP's services.