

Pollution Prevention Opportunities to Reduce Odors and Fugitive Particulate Matter From Outdoor Spraying Operations

Florida Administrative Code 62-296.320 requires any person who uses volatile organic compounds (VOCs) or organic solvents to control vapor emissions and prevent air pollutants that cause or contribute to an objectionable odor. Over-spray or dust on your neighbor's property can be a Pinellas County Air Quality Code violation as can odors from your spraying operation that affect a considerable number of people.

Ideally (and in some municipalities of Pinellas County it is required), a spray booth should be used whenever possible to capture over-spray. Solvent-based paints create safety and health concerns for workers as well as the general public. In addition, environmental concerns exist. If outdoor spraying is unavoidable, make sure that no over-spray or dust goes beyond your property line, and that odors are contained to prevent pollutants from entering the environment. Limit outdoor spraying to areas sheltered from wind/weather effects and areas where paint materials and spills can easily be contained.

POLLUTION PREVENTION/WASTE MINIMIZATION

Consider the following pollution prevention opportunities:

Product Changes

- Reformulate your coatings.
- Use compliant coatings and solvents that do not exceed VOC limits of 5% by volume.
- Use alternative coatings (high solids "Solvent-Borne", 100% solids, water-based, solvent-free, zero-VOC coatings, powder-coating). In general, VOC content between 4 and 5 pounds/gallon is considered low.
- Eliminate the use of methylene chloride-based paint strippers; use non-solvent stripping products.

Improved Operating Practices

- Track the types and amounts of VOC-containing products you use.
- Use only the amount of paints and materials you need to complete the job.
- Keep paint viscosity within specifications.
- Do not paint in open areas using aerosols or spray equipment.
- Perform spraying operations only in designated spray booths or spraying areas.
- Store paints, solvents, and cleanup wipes in airtight containers to minimize evaporation and vapor emissions.
- Keep lids closed on all paint containers when not in use.
- Store and mix paints and solvents in contained areas to prevent releases onto the ground or into the water.
- Use drip pans or other spill prevention equipment for all paint mixing, solvent transfer, or equipment clean-up operations.
- Avoid working on windy days when control of the protective sheeting and spray-applied paint is difficult.
- Transfer paint to outdoor work area in a tightly covered container.

- Reduce particulate emissions (dust) by conducting sanding and grinding activities in confined areas.
- Avoid spraying less than 20 feet from the property line and 100 feet from the nearest residence.
- Remove spray-related particulate matter from buildings or work areas to prevent particulate from becoming airborne.
- Landscape or plant vegetation to minimize the effects of weather and airborne particulate dispersion.
- Remove residue scrapings, debris, rags, and waste from the spraying area as they accumulate.
- Paint over an impermeable surface and in a manner to prevent over-spray on open ground or surface water.
- Operate, maintain and clean spray guns and lines according to manufacturers' instructions.
- Train painters to use efficient paint spray techniques to maximize transfer efficiency of paint to the product surface while minimizing over-spray and waste (e.g. maintain gun position perpendicular and a uniform distance from surface to be painted, move gun at a uniform speed to maintain spray pattern consistency).
- Do not discharge paints, solvents, dirty clean-up water or other related materials onto the ground or allow them to enter storm drains.
- Drip pans, tarps, and sheeting should be used to contain droppings and spilled material.
- Weight the bottom edges of tarps and plastic sheeting to keep them in place.
- Place paint cans in drip pans; use drop cloths or tarps underneath the drip pans.
- Clean up spilled coatings and solvents immediately.
- Re-use all materials captured in drip pans if possible, or properly disposed of according to disposal requirements.
- If painting by hand, paints should be kept in one-gallon size cans or less.
- Recover and reuse all solvents (solvents can be recycled on-site or by a permitted recycling facility).
- Clean paint guns in an enclosed gun cleaner.
- Avoid using thinners whenever possible.
- Consider using water-based cleaners whenever possible.

Technology Changes

- Examine your use of materials by operation. Are there new technologies to replace an existing process and reduce toxics or waste?
- Use efficient equipment; replace high-pressure guns with high-volume low-pressure (HVLP), low-volume low-pressure (LVLP), electrostatic, or air-assisted airless spray equipment. The higher the transfer efficiency (TE), the better paint coverage and lower the paint consumption.
- Use High Volume Low Pressure (HVLP) equipment with the proper tip to reduce paint usage.
- Modify your coating process - use spray booths and closed or re-circulating systems for painting and spray gun cleanup to minimize air emissions (e.g. enclosed spray gun cleaners are commercially available).
- Use a solvent still to recover solvents from paint waste for reuse as a thinner.

Your Hazardous Wastes

All hazardous waste generated at your facility must be managed and disposed of in accordance with Chapter 62-730 Florida Administrative Code. The following provides general guidance on managing your wastes

- Determine which materials and wastes are hazardous. Follow proper handling, storage, recycling disposal, and manifesting requirements for hazardous wastes.
- Do not create hazardous waste by mixing waste solvents with other wastes.

- Solvent soaked rags should be placed in fireproof storage bins and recycled through an industrial laundry service.
- Empty paint and thinner cans must be completely dry before they are placed in the dumpster for disposal. (Note: Some solid waste management facilities may not accept this waste stream. Contact your local Solid Waste facility for specific requirements).
- Waste solvents from cleaning spray equipment must be placed into a labeled container with a lid to prevent evaporation into the atmosphere.
- All hazardous waste from painting operations must be properly containerized, managed, and disposed of in accordance with hazardous waste regulations.
- Do not evaporate waste solvent or waste solvent-based paint. Evaporation of waste solvent or waste solvent-based paint is illegal disposal of a hazardous waste.

Product changes (raw material substitution), improved operating practices, and technology changes (process or equipment modifications) can result in decreased raw material usage (saving \$\$) and/or reductions in the release of pollutants to the environment.

***Contact Pinellas County's Pollution Prevention and Resource Recovery (P2R2) Program
at 464-4761
for Waste Reduction Assistance***