

Painting



Regulation and Inspection

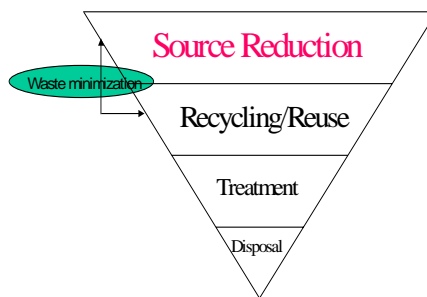
Architectural painting operations are generally done by contractors or through building maintenance activities. Some of the waste generated from these activities may be hazardous waste. Waste generators are required to comply with environmental laws and may be inspected. It is also important for these businesses to understand ways to reduce wastes (pollution prevention) and use less toxic alternatives to improve their business and improve worker safety. Complying with environmental laws and reducing health and environmental risks at the source through pollution prevention, is a first step to help ensure worker and community safety. Changing to newer, safer technologies can further these efforts to protect our air, water and land, prevent risk of future liability and even reduce costs associated with the generation of waste.

Typical Wastes

Wastes typically generated from painting:

- Solvent based paint (oil-based)
- Water based paint (latex)
- Solvents (thinners)
- Still bottoms from solvent recycling
- Sanding dust (lead based paint)
- Surface cleaners, paint removers
- Wash water
- Used containers, rags, brushes, rollers, drop cloths

Waste Management Hierarchy (US EPA Policy, 1976)



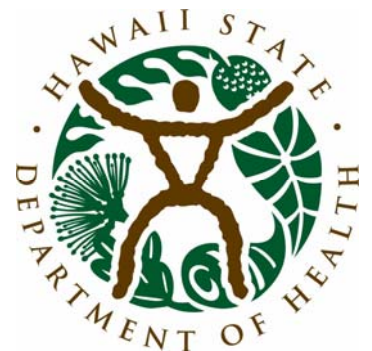
Pollution prevention (P2) is reducing waste at the source = Source Reduction. P2 is using less toxic materials and using resources efficiently (including energy and water) to reduce the generation of waste. P2 can save businesses money while protecting the public, employees, and our environment. P2 can reduce liability and improve public image.

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Energy and water are precious resources for our community. Do your part to save by having an audit done and install the latest technologies; check for leaks and fix immediately; replace incandescent lights with low mercury fluorescent or LED lighting. Visit:

HECO www.heco.com
BWS www.hbws.org (Oahu)



LINDA LINGLE
Governor

DR. CHIYOME FUKINO
Director of Health

Pollution Prevention (P2) Action

Management Practices: Throwing away paint is throwing away money; over spray is also lost revenue.

- Track paint use from start to finish.
- Use available software for improved estimation.
- Keep inventories at a minimum; use next day or weekly ordering.
- Establish a take back agreement with suppliers or buy only what you need.
- Improve color matching process by using a colorimeter, keeping a color library and mixing only small amounts to use on test panels or cards.
- Provide operations and maintenance training to painters.
- Use proper storage, inventory practices, and handling techniques.
- Recycle paint overspray.

Always choose water based paints (latex) whenever possible. These typically are not hazardous and do not require use of thinner. If oil-based paints are absolutely needed, choose low VOC or high solids products. If solvent thinners are absolutely needed, consider purchasing a solvent recycling unit that can reduce the need to buy new thinner. Even simple filtering of thinner can keep it usable longer.

Used **solvents, thinners and oil based paint** must be kept in closed containers and never discharged to the environment (street, storm drain, sink, trash, air). This waste must be managed as **hazardous waste**.

If paint removal is needed, check for **lead paint**. Use mechanical devices that do not generate dust or runoff and choose non-toxic or water based paint removers. Be advised that paint may contain other metals such as cadmium, chromium, nickel and zinc that can also be hazardous.

Keep wastes segregated: Never mix incompatible wastes as this may result in poison gases or violent reactions. You can combine like water-based paints. Scrape out containers with a rubber spatula to use up all the product. Donate usable leftovers to charity.

Note: Final determinations of the proper handling and disposal of waste are the sole responsibility of the waste generator. For more information, contact the DOH Solid and Hazardous Waste Branch phone: (808) 586-4226 or visit: www.hawaii.gov/health/environmental/waste/index.html

Keep the jobsite safe and clean: At a clean jobsite it is less likely a worker will slip or fall. Preventing spills can help to avoid worker injury. Keep containers tightly covered. Keep dry sanding dust collected at the source using vacuum sanding with HEPA filters. Remove paint chips regularly. Train employees to improve their efficiency. Provide incentives.

Purchase and use durable, efficient equipment: By choosing durable vs. disposable, you will reduce waste. Purchase of high quality brushes, rollers, tarps and other equipment pays for itself in the long run. If using a spray applicator:

- Use good manual spraying techniques.
- Use a tank with a non-stick surfaces.
- Use a low volume water washing system when cleaning the spray applicator.

Visit: The EPA's Verification unit which evaluated a number of spray guns:

<http://www.epa.gov/etv/vt-ppc.html>

Choose less toxic chemicals: Read the product label and MSDS to look for words indicating a level of hazard such as "Caution", "Danger", "Warning", "Flammable", "Corrosive" or "Poison" also check for "chlorinated" ingredients such as methylene chloride and **AVOID** their use. Avoid use of aerosol spray cans. Use water based (latex) paint whenever possible. Consider water-based or citrus based spray gun cleaners. Use non-chlorinated, water or citrus based paint strippers. Always follow label directions and allow plenty of ventilation while working with any chemical product.

Clean paint application equipment with an automated washer: By using an automatic paint application washer, less hazardous waste is generated since solvents used during cleaning is recycled.

- Reduces the amount of hazardous air emissions generated.
- Reduces worker exposure to solvent, hazardous waste and hazardous air emissions.
- Reduces labor costs since it is fully automatic.
- Can Provide up to 80 percent cost savings due to solvent recycling and reuse.

Pollution Prevention (P2) Action

Contractor vehicles: Reduce the environmental impact of your service vehicles by keeping them in good repair; checking air tire pressure; and encouraging workers to carpool to job sites. When repairing vehicles, choose an auto shop that recycles used oil and antifreeze and is in compliance with environmental laws. Ask for recycled (re-refined) oil when having an oil change. Choose alternative fuel vehicles when purchasing new vehicles.

Storm water protection: Never discharge any substances whether water-based, solvent, concrete etch or excess dirt to the street or storm drains. These can clog the drainage system and also contaminate the creeks and ocean. Storm drains provide no treatment, and drain directly to streams and the

For more information about pollution prevention approaches and resources visit:

<http://hawaii.gov/health/environmental/waste/p2wastemin/index.html>

This pollution prevention bulletin and related environmental information are available electronically via the above website.



**“P2 is a choice;
being “green” is
making that
choice.”**



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