

Tennessee Department of Environment and Conservation
Division of Solid Waste Management
Solid Waste Assistance Program

Household Paint Management Guidance
September 2006

Background

The National Paint and Coatings Association (NPCA) estimate that there are 3 cans of leftover paint in every household in America. Managing this leftover paint can be a challenge for many counties and municipalities. Currently landfills and transfer stations in Tennessee will not accept individual paint cans that contain liquid paint. Paint in liquid form has the potential to leach out of landfills and septic systems into groundwater. The Division of Solid Waste Management (SWM) sponsors a safe alternative for disposal of paint through the Household Hazardous Waste (HHW) collection program. Currently paint constitutes 50-60 % of all materials collected at HHW events. In addition, latex paint is non-hazardous. Disposal is costly when processed through the Household Hazardous Waste Program. SWM has put together some options for county solid waste authorities to make it more convenient for citizens to dispose of their household paint in an environmentally safe manner. This document presents guidelines for paint pre-collection, exchange, consolidation, solidification and basic consumer tips for keeping paint out of the waste stream altogether. Through better management of paint, funds will be available to host events in more counties.

Pre-Collection

A paint pre-collection program is a county service to provide an environmentally safe method of disposing old paint (latex and oil-based) by collecting it at a secure site on a year-round basis. The county must check with the local SWM field office for any possible permit modification before starting the pre-collection process. The County must also notify the HHW program at the SWM Central office to discuss the program and plan for any disposal needs. If approved, paint pre-collection may take place at a sheltered convenience center, transfer station, recycling center, landfill building, or mobile collection center. For the safety of county workers, citizens, and state contractors, the following guidelines are put forth by SWM for counties that choose to pre-collect paint.

There must be enough employees on-site to assist with paint collection/exchange during operation hours.

Only collect household paints in quarts and in 1, 2, and 5-gallon containers. Collection should only be done in the original containers.

Do not collect aerosols, varnishes, thinners, stains, industrial coatings or any other household hazardous waste. These substances are hazardous and should only be handled by a certified hazardous waste handler under the right conditions.

Paint donors must sign-in listing their name, address, and number of cans of paint donated, certifying that the paint donated is not from a business or contractor. Pre-collection participants may also be included for HHW event participation numbers.

Paint may not be collected from any painting contractors or businesses. This paint is considered regulated waste, which falls outside the scope of the HHW collection program.

One week before the HHW collection event or when the county has collected a full load, the county must coordinate how the contractor will pick up the pre-collected oil-based paint.

Once paint is collected it must be separated according to type (latex or solvent based). The easiest way to identify the paint type is to read the label. The terms alkyd or oil-based refer to solvent based paint while water-based paint or water clean up refers to latex. Paint should be kept out of the elements and away from any heat sources. Paint should be left in original containers and neatly stacked in a storage container lined with plastic to avoid spills. Cubic yard boxes lined with plastic are recommended for storage purposes. These are available to your county from the HHW contractor.

Paint Exchanges and Reuse

Many times paint that is brought in to a pre-collection program is fairly new and still useful. In addition modern latex paint is not considered hazardous and can be safely reused. Consumers and other entities should use leftover paint in order to lower disposal costs. The easiest and least expensive method of reusing paint is through paint exchanges. Exchanging of leftover paint involves picking out the paint that is reusable and giving it in original containers to citizens or worthwhile organizations. In an effort to divert paint from the waste stream altogether, this section identifies some guidelines for making good paint available for reuse.

Find a Steady Market

The success of a paint exchange program depends largely on finding a market for leftover paint. It is important to advertise about the availability of post-consumer paint to county citizens and local non-profit organizations. It would be very worthwhile to create contacts with groups/organizations that would be regular customers of the paint. The following is a list of community organizations that may be a market for leftover paint.

Theater Groups, Fix-Up Projects, Anti-Graffiti Programs
Churches
Non-Profit Organizations (Boy/Girl Scouts, YW/YMCA, Salvation Army, Goodwill,
Habitat for Humanity, 4-H Clubs)
Multi-family Housing Associations
Local, State and Federal Government Buildings and Maintenance Departments
Contractors
Parks, Schools, Colleges, and Universities
Military Bases, Prisons,
Property Management Companies, Fire Departments
Fairgrounds, Athletic Fields, Golf Courses, and Stadiums

Collecting and Sorting

Once a market has been found for leftover paint then the process of collection for reuse can take place. There are two separation schemes involved with the collection of paint for reuse. The

first is to separate paint into usable or unusable. Leftover paint should carefully be inspected to determine if it is still usable. Paint is considered reusable if:

1. At least one-third of a gallon remains in the original container;
2. The label is still intact; and
3. The paint has not been frozen or contaminated.

Unusable latex paint should be solidified and thrown away. Unusable oil-based paint or any paint where the label is painted over or missing should be placed in lined cubic yard boxes provided by the HHW contractor. To schedule a pick up for oil-based paint contact the HHW Coordinator. Reusable paint (oil-based and latex) can be left in the original can and given away for reuse to homeowners or any of the organizations listed above. People will sometimes put other household waste in paint cans such as oil or waste cleaners. These substances can be hard to detect. Therefore, it is important to recommend that all paint given away be used on exterior surfaces. Picking out useable paint for reuse may dramatically decrease the amount of leftover paint entering the waste stream.

Paint Consolidation

Paint consolidation generally produces a relatively low-grade 100-percent recycled paint. Consolidated paint is suitable for non-critical projects such as graffiti abatement, barns, tree houses, garages, or a primer for larger paint jobs. Consolidation should be attempted only when a market has been found that will agree to take a large amount of paint. The paint would have to be separated into latex and solvent-based according to the label. Only the latex paint is considered applicable for consolidation. According to the NPCA latex paints are not hazardous and can be reused. Consolidation of solvent-based paint is not recommended because of complexities and incompatibilities. However, some counties have had success in consolidation of oil-based paint. For more information please contact the HHW Coordinator.

Consolidation requires a minimal amount of equipment and is relatively inexpensive. In order to make the paint more appealing for end users it is advised to separate colors into dark, light, and white. Colors that are alike should then be poured through a filter or a screen and into 5-gallon buckets. Care should be taken when mixing red paint with other colors due to its dominant nature. The paint should be stirred to obtain consistency and tested to ensure that the consolidated latex is not contaminated. If testing is not performed the consolidated paint should be labeled "For Outdoor Use Only". Facilities with adequate ventilation can be the site of paint collection and consolidation provided that the paint is kept out of the elements and away from heat sources. Empty paint cans are made of high quality steel. They should be recycled if they are empty and the paint residue is dry.

Paint Solidification

Paint solidification generally produces a large volume of paint related waste that ends up being land filled. The paint would have to be separated into latex and solvent-based according to the label. Only the latex paint is considered applicable for solidification. Containers filled with an absorbent material, such as shredded mulch, sawdust, or wood chips, may be used to accelerate the solidification process. Latex paint is not hazardous and can therefore be safely land filled once solidified. Solidification of solvent-based paint is not recommended because of complexities and incompatibilities. Often empty and dry paint cans may be recycled with scrap metal.

Summary

By conducting paint pre-collection, exchange, consolidation, and solidification municipalities can decrease the amount of paint for disposal by 25% or more. The program can only be successful through adequate advertising and community participation. Once reusable paint is collected it should be made available for citizens and non-profit organizations. Paint exchanges and consolidation can be a great service to county citizens however they do require a small amount of effort and participation. The Division of SWM is constantly seeking programs to promote waste reduction. These programs should be successful if they are well managed and advertised.