



# Household Paint Management Guidance



Tennessee Department of Environment & Conservation  
Division of Solid Waste Management  
Household Hazardous Waste Program  
November 2010

*Through local management of paint, funds will be available to collect truly hazardous household wastes in more counties.*



## 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. The Division of Solid Waste Management (SWM) has several options to allow county solid waste programs to make it more convenient for citizens to dispose of their household paint in an environmentally safe manner. This document presents guidelines for paint collection, exchange, consolidation, solidification, and basic consumer tips for keeping paint out of the waste stream altogether. Through local management of paint, funds will be available to collect the truly hazardous household wastes in more counties.

## Collection

A paint collection program is a county service to provide an environmentally safe method of utilizing or disposing of old paint (latex and oil-based) by collecting it at a secure site on a regular basis. The county must check with the local SWM field office for any possible permit modification before starting the 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 collection may take place at a sheltered convenience center, transfer station, recycling center, landfill building, or mobile collection site. For the protection of the environment and the safety of county workers, citizens, and state contractors, the following guidelines are put forth by SWM for counties that collect paint.

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

Only collect household paints in pints, quarts and in 1, 2, and 5-gallon containers. Paint should only be accepted if it is in its original container. Do not accept paint in glass containers. The county should provide guidance to the participant with unacceptable containers to dry the latex paint and dispose of it with household waste.

Do not collect aerosols, thinners/solvents, herbicides/pesticides (creosote, etc.), 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.

Once paint is collected it must be separated according to type (latex or oil-based). The easiest way to identify the paint type is to read the label. The terms alkyd or solvent-based refer to oil-based paint while water-based paint or water clean up refers to latex. Products such as shellac, varnish, polyurethane, and water sealer can be managed along with the oil-based paint.

Paint donors should 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. Contractor paint is considered regulated waste, which falls outside the scope of the HHW collection program.

Paint should be kept out of the elements and away from any heat sources. Paint should be neatly stacked to avoid spills and maximize storage space. Cubic yard boxes lined with plastic will be provided by the HHW Contractor for oil-based paint storage.

One week before the HHW collection event or when the county has collected a full load, the county must coordinate with the HHW coordinator for the contractor to pick up the collected oil-based paint.

## **Paint Exchange Programs**

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

### **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 the availability of post-consumer paint to county and municipal government, citizens, and local non-profit organizations. It is worthwhile to create contacts with groups/organizations that could be regular customers of the paint. The following is a list of community organizations that may use leftover paint.

Theater Groups, Fix-Up Projects, Anti-Graffiti Programs

Churches

Non-Profit Organizations (Boy/Girl Scouts, 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



*Consolidation  
requires a minimal  
amount of  
equipment and is  
relatively  
inexpensive.*



## **Collect and Sort**

Once a market has been developed for paint then the process of collection can take place. First, separate paint into usable or unusable. Leftover paint should carefully be inspected to determine if it is still usable. Paint is considered usable 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.

Next, sort unusable paint into latex and oil based. 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. Usable paint (oil-based and latex) should be left in the original container and given away to homeowners or any of the organizations listed previously. Picking out useable paint for exchange may dramatically decrease the amount of leftover paint to be managed as a waste .

## **Consolidate**

Paint consolidation produces a 100-percent recycled paint. Consolidated paint is suitable for a variety of projects, such as graffiti abatement, barns, tree houses, garages, or a primer for larger paint jobs. Consolidation should be accomplished only when a market has been found. Only latex paint is suitable for consolidation. According to the National Paint and Coatings Association, latex paint is not hazardous and can be consolidated and used. Consolidation of oil-based paint is not recommended because of complexities and incompatibilities. However, some counties have had success in consolidation of oil-based paint. Many are painting the inside of their recycling and solid waste containers to extend the life and cover rust. 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 for paint consolidation require adequate ventilation. Empty paint cans are made of high quality steel. They should be recycled if they are empty and the paint residue is dry.

## **Solidify**

Paint solidification generally produces a large volume of paint related waste that must be land filled. Only latex paint is considered acceptable 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 acceptable because of complexities and incompatibilities. Empty and dry paint cans may be recycled with scrap metal.

Latex paint solidified under the following conditions does not require a special waste approval.

- Total volume is 40 cubic yards or less.
- Paint is latex paint that has been collected from households at county or local government operated facilities.
- Paint has been solidified with either mulch, sawdust, or wood chips.
- Paint is disposed in a Class I facility.

## **Summary**

By conducting paint collection, exchange, consolidation, and solidification municipalities and counties can decrease the amount of paint for disposal by 25% or more. The program will only be successful through management, advertising, and community participation. Paint exchanges and consolidation can be a great service to county citizens however they do require effort and participation. The Division of SWM is constantly seeking programs to promote waste reduction.



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**Tennessee Department of Environment and Conservation  
Division of Solid Waste Management**

**Household Paint Management Requirements  
POLICY**

**Background**

Tennessee's Household Hazardous Waste (HHW) Collection Program is sponsored by the Division of Solid Waste Management (SWM). Currently, paint constitutes 50-60 % of all materials collected at HHW events. SWM believes that this waste can be safely managed by local government and thereby free up additional money for the HHW program.

This document establishes the regulatory requirements for counties involved in household paint collection and handling.

**Collection**

One likely collection point will be an existing, permitted solid waste facility. This may be a convenience center, transfer station, solid waste processing facility or a landfill. In this scenario, the owner should amend the permit to explain where and how paint collection will take place. This permit amendment will be considered a minor change and will not be subject to fees.

A second possibility is that the collection point will be at a location that is not a permitted facility. This includes recycling centers and maintenance shops. No permit requirement exists for this option. The county should notify the SWM field office of the collection point.

**Paint Handling and Processing**

Household paint may be given away, or consolidated (blended) for reuse without any additional permit requirements.

Household latex paint that is not reused may be solidified for disposal. Household oil-based paint that is not reused may be placed in lined cubic yard boxes (supplied by the state's contractor) until picked up by the contractor for disposal. This operation may be performed at an existing, permitted solid waste facility. This may be at a convenience center, transfer station, solid waste processing facility or landfill. This will require an amendment to the permit but not require a separate permit. This will be a minor permit change and not subject to fees. If solidification is to be performed at a location that is not currently permitted, a separate permit-by-rule application must be submitted to SWM with the appropriate fee.

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[Signature on File]  
Mike Apple, Director  
Division of Solid Waste Management

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09/12/06  
Date

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# Paint Recycling Equipment

## Large Scale

Operation: Latex paint would be reconditioned to produce a high quality, versatile product and result in a very significant reduction in the volume of latex paint that needs to be disposed. In addition, the program would have a reuse area for citizens to claim usable oil based paint that is kept in its original container. The remaining oil based paint would be handled by the State's HHW contractor. Waste latex is dried and land filled or incinerated or beneficially reused as in a Portland cement additive. No latex paint will be handled by the State's contractor. This operation should be processing a minimum of 10,000 pounds of paint a year. The price range for this operation should be from \$10,000 to \$20,000 depending on the size of the operation.

Equipment: The key difference from this type of operation and other paint recycling operations is a mixing vat and a high speed mixer. Other necessary equipment includes a pump for high viscosity liquids, several 55 gallon drums, and screens for the drums. Other potential equipment includes an air compressor, one or more can opening machines, and one or more can crushers. The mixing vat could be one designed specifically for paint or one designed for other purposes such as dairy vats or jelly mixing tubs. Shelving is needed for distribution of paint to the public.

## Medium Scale

Operation: Oil-based and latex paints are segregated. Usable oil-based paint is set aside for the reuse by local government or the public. Unusable oil-based paint is boxed for pick-up by the mobile HHW contractor. Latex paint is segregated by color into 55-gallon drums. A mixer designed for this purpose is used to blend the paint in the drums. No additives are used in this process. The paint is then pumped through a filter into pails and labeled for reuse. The paint that is produced is typically of a lower quality and fewer color varieties than reconditioned paint, but can still be used for a number of uses such as graffiti abatement, outdoor applications such as fences and picnic shelters, as well as exterior use for homes. Waste latex is dried and land filled or incinerated. The State's HHW contractor will not handle any latex paint. This operation should process a minimum of 500 pounds of paint a year. The price range for this operation is from \$500 to \$2000.

Equipment: This type of operation would require 55-gallon drums with special screen tops manufactured, a drum mixer, and a pump for high viscosity liquids. Other potential equipment includes an air compressor, a can opening machine, and a can crusher. Shelving is needed for distribution of paint to the public.

## Small Scale

Operation: Oil-based and latex paints are segregated. Usable oil-based paint is set aside for the reuse by local government or the public. Unusable oil-based paint is boxed for pick-up by the mobile HHW contractor. Latex paint is segregated by color into 2-5 gallon buckets. An electric drill with a paint mixer attachment is used to blend the paint in the buckets. Once the bucket is full of the desired color, place a lid on the container and indicate the color by daubing some paint on the lid. No additives are used in this process. The paint that is produced is typically of a lower quality and fewer color varieties than reconditioned paint, but can still be used for a number of uses such as graffiti abatement, outdoor applications such as fences and picnic shelters, as well as exterior use for homes. Waste latex is dried and land filled or incinerated. The State's HHW contractor will not handle any latex paint. This operation should process a minimum of 200 pounds of paint a year. The price range for this operation is from \$500 to \$1000.

Equipment: This type of operation would require 2-5 gallon buckets with lids, an electric drill with paint mixing attachments, a flathead screwdriver/paint can opener, and an extension cord.

## Summary

### Large Scale

Process at least 10,000 pounds of paint per year

Costs \$10,000 to \$20,000

Necessary equipment- large mixer, large vat, 55-gallon drums, screens for drums, pump, shelving

Optional equipment- can opener(s), can crusher(s), air compressor

Supplies- paint additives, paint filters, colorants, paint buckets, and paint labels,

### Medium Scale

Process at least 500 pounds of paint a year

Costs \$500 to \$2000

Necessary equipment- drum mixer, 55-gallon drums, screens for drums, pump, shelving

Optional equipment- can opener, can crusher, air compressor

Supplies- 5 gallon buckets with lids and labels for buckets

### Small Scale

Process at least 200 pounds of paint a year

Costs \$500 to \$1000

Necessary equipment- electric drill, flathead screwdriver/paint can opener, extension cord

Supplies- 2-5 gallon buckets with lids