

HOUSEHOLD/SMALL BUSINESS HAZARDOUS WASTE



MANUAL FOR SPONSORING A COLLECTION EVENT

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www.dep.state.pa.us

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HOUSEHOLD HAZARDOUS WASTE (HHW)

Each year, Pennsylvania's four million households generate about 25,000 tons of household hazardous waste (HHW) such as old paint, pesticides, drain cleaners and pool chemicals.

Hazardous waste generated by private households is not regulated as are other sources of hazardous waste, which means that combining HHW with residential trash is not illegal. However, this disposal method can present problems for homeowners, children and trash collectors. This is especially true in instances when HHW leaks from ordinary household trash bags. When disposed in a waste-to-energy plant, HHW that has been unknowingly co-mingled with other waste can increase the toxicity of the resulting emissions and ash.

COLLECTION EVENTS

The Pennsylvania Department of Environmental Protection (DEP) encourages local governments and private organizations, including trade associations, to sponsor collection events for HHW. Financial and technical assistance are available to programs that register with DEP. These programs provide sites for residents to drop off their HHW. The materials collected at these sites are then reused, recycled and, when necessary, disposed of at permitted hazardous waste facilities.

Chapter 2 of Act 190 of 1996 (The Small Business and Household Pollution Prevention Act) established the Small Business and Household Hazardous Waste Prevention Program. Both Act 190 and DEP's hazardous waste management regulations allow local HHW collection programs to accept hazardous waste from:

- Small quantity generators (SQG)-small business hazardous waste generators that generate between 100 and 1,000 Kg of hazardous waste each month.
- Conditionally exempt small quantity generators (CESQG)-small business hazardous waste generators that generate less than 100 Kg of hazardous waste each month.
- Households.

The following special restrictions, however, apply to all SQG participants:

- Waste can be accepted only on the day the operator/contractor is at the site.
- Waste cannot be co-mingled with other collected waste.
- Each SQG retains its status as the generator of the hazardous waste.

Anyone may apply for sponsorship of a program. All sponsors must register with DEP. Events may be held exclusively for HHW, exclusively for hazardous waste generated by CESQGs and SQGs, or for only those products specified.

For inquiries concerning waste pesticides, the Pennsylvania Department of Agriculture (PDA) has developed "Chemsweep," a program which identifies farms and other generators of similar waste in yearly designated counties for the removal of pesticides. The costs of the program are covered by the state's pesticide product registration fee. It is recommended that pesticides from farming operations not be accepted at your collection event. Non-farm pesticides are eligible for inclusion. For more information on Operation Chemsweep, contact the agronomic inspector serving your area or the PDA Bureau of Plant Industry at (717) 787-4843.

WHAT FUNDS ARE AVAILABLE

Act 155 of 1994 authorized a one-time transfer of \$3 million from the Resource Recovery Development Fund (Act 198 of 1974) to the Pennsylvania Recycling Fund (Act 101 of 1988). This funding is used to reimburse up to 50 percent of eligible HHW program costs, not to exceed \$100,000 per county per fiscal year.

Act 190 of 1996 provides grants to reimburse up to 50 percent of the costs of developing and operating household and small business hazardous waste collection programs. Under the Act, as much as \$2 million annually may be transferred from the Pennsylvania Recycling Fund and Hazardous Sites Cleanup Fund (Act 108 of 1988) to underwrite such collection programs.

Act 190 also authorizes the department to provide grants under Section 901 of Act 101 of 1988 to reimburse counties for up to 80 percent of approved costs of HHW education programs or for providing technical assistance to small businesses.

WHAT RESTRICTIONS APPLY

Expenditures incurred prior to February 27, 1995 are not eligible for reimbursement. No more than \$100,000 per state fiscal year (July 1 to June 30) can be reimbursed for programs in any one county. Funding priority will be given to county sponsored programs. The awarding of all grants is dependent on the availability of money in the Recycling Fund and the Hazardous Sites Cleanup Fund.

Items that are specifically excluded from reimbursement include expenses not directly related to the operation of the program. This includes indirect/overhead costs, advisory committee expenditures and facility/office maintenance. Office supplies and equipment not directly related to the proper and safe operation of the program are also ineligible. Acquisition of equipment or land for a facility, or purchase and modification of a facility, is eligible only if the sponsor is a municipality or nonprofit entity. For-profit sponsors are not eligible to receive grants for those purchases.

WHAT EXPENSES ARE GRANT ELIGIBLE

Wages, salaries, costs for social security, workers compensation and unemployment compensation are all eligible provided reimbursement was not requested under any other program (e.g., Act 101, Section 903, County Recycling Coordinator Grant).

Travel expenses and related costs associated with attending training courses, related meetings and functions are also eligible, if approved in advance. Examples may include registration fees and rate of pay for actual hours of attendance. Other eligible expenses include:

- Legal fees for preparing and reviewing proposals and contracts in the developmental stage.

- Facility siting studies.
- Printing and distribution of public education materials, including postage, if it is in connection with at least one collection event.
- Operator/contractor mobilization and demobilization fees.
- Operator/contractor fees for managing collected materials.
- On-site sanitary facilities, when required and pre-approved by DEP.

The following eligible purchases apply ONLY to municipal and non-profit sponsors:

- Acquisition and preparation of land required for the location/construction of a permanent collection facility; maximum reimbursement will be \$5,000 per acre and may not exceed three acres unless approved in advance.
- Design and specification development work for a HHW collection facility.
- Construction and acquisition of new/modified existing facilities and/or vehicles, not to exceed 50 percent of the total grant request or \$50,000 per fiscal year, whichever is less.
- Equipment required to properly and safely operate a facility.

DECIDING WHAT MATERIALS TO COLLECT

There are thousands of consumer chemical products that may qualify for inclusion in a collection event. However, in order to reduce operational costs and maximize the effectiveness of collection events, a waste targeting protocol is recommended. It is also recommended that all participants be pre-registered, at which time the nature of their waste can be discussed and a decision made on which items should not be brought to the collection event. The following household hazardous waste categories should be targeted for collection.

Corrosive Materials

Examples include drain cleaners, rust removers, muriatic acid and oven cleaners. These materials have extremely low or high pH values and cause severe burns to the skin or mucous membranes. Their labels usually have the words “CORROSIVE-AVOID CONTACT WITH SKIN OR EYES.”

Extremely/Highly Flammable Materials

Examples include gasoline, gasoline/oil mixtures (for two-cycle engines), kerosene, fuel oil, lighter fluids (butane), oil-based paints and paint thinners. These materials possess a low flash point and thus pose a significant fire risk and threat of burns. Labels usually read “EXTREMELY FLAMMABLE-KEEP AWAY FROM ANY SOURCE OF IGNITION” and “HIGHLY FLAMMABLE—KEEP AWAY FROM OPEN FLAMES.”

Extremely/Highly Toxic Materials

This category includes carbon tetrachloride (found in old fire extinguisher bulbs), benzene, cyanide compounds (found in rat fumigants), lead arsenate, thallium sulfate (used in ant traps), strychnine (used in mouse control seed baits), parathion, mirex/kepone (also frequently found in old ant traps). Most of these will be in liquid form, although non-liquid versions should be included when the integrity of the packaging has been breached or is in jeopardy. Labels usually require the signal words “DANGER/POISON” or “WARNING-KEEP OUT OF REACH OF CHILDREN” and are often accompanied by the skull and crossbones emblem. It also includes those chemicals confirmed or suspected to be human carcinogens.

Strong Oxidizers

Examples include chlorinated pool chemicals, sodium hypochlorite, and various peroxides. These chemicals react strongly with other compounds and may cause fires/explosions. Consumers should be instructed to look for signal words “WARNING—STRONG OXIDIZER.”

Air/Water Quality Hazards

This includes items that may create excessive emissions or toxic ash problems at resource recovery facilities. Items that should definitely be included are rechargeable nickel cadmium household batteries, mercury-containing batteries, thermostats, thermometers and lead acid batteries. Another possible item for consideration would be paints (including latex types) that contain more than 1 percent by weight of heavy metals such as lead and mercury. Finally, any product that contains significant quantities of volatile organic compounds (VOCs) that may contribute to air quality problems should be targeted. This includes all oil-based paints.

Wildlife Hazards

These can be identified by product labels that indicate the material presents a hazard to fish and/or wildlife. The effect may be immediate acute toxicity or delayed toxicity, resulting from the accumulation or biomagnification of the material in various tissues. Input should be received from sewer authorities on materials that should be included in the collection events because of their potential to contaminate streams and other water supplies. Of particular interest for collection events are those chemicals which are very slow to degrade and/or tend to bioaccumulate. These include old chlorinated pesticides (e.g. DDT, chlordane, dieldrin, heptachlor, etc.) and heavy metal containing compounds.

Unknowns

By their very nature, unidentified materials, such as those with no ingredient information or signal words on the label, present a potentially significant threat to human health and the environment. It must be presumed that they belong to one or more of the hazard categories outlined above until proven otherwise. The contractor should have techniques available to screen such items for subsequent classification and management.

MATERIALS THAT SHOULD BE EXCLUDED

The decision to exclude specific dangerous chemicals will be considered as part of the registration process. The following should be excluded from collection events:

- Items not considered hazardous in Pennsylvania, such as intact automobile lead acid batteries or used motor oil.
- Items that fit into one of the hazard categories, but should not be transported by ordinary citizens. Examples include explosives, highly radioactive materials or large quantities (more than 25 gallons) of targeted items. Special arrangements, including visits to the point of generation by specially trained personnel, should be considered (i.e. included in the “program” but not in the actual collection event).
- Household hazardous waste items for which convenient disposal outlets exist. For example, more than 600 sites exist in Pennsylvania for the collection of used oil.

ESTIMATING COLLECTION AMOUNTS

After choosing what materials to collect, the next consideration is how much to expect. Use the following formula to obtain an initial planning estimate of the amount of HHW you will need to manage at your collection event:

$$\begin{aligned} & (\text{number of tons of household waste generated annually}) \\ & \times (\% \text{ of household waste stream considered to be} \\ & \text{hazardous}) \times (\% \text{ targeted}) \times (\text{expected participation rate}) \\ & \times (\text{accumulation factor}) = \text{INITIAL ESTIMATES} \end{aligned}$$

- Household generated waste is 50-60 percent of all municipal waste. The remaining portion comes from institutional and commercial generators. The 1996 average figure for Pennsylvania waste generation was 4.28 pounds per person per day. The number of tons of household waste generated annually can be obtained from the county or municipal solid waste authority.

- The targeting factor is the percentage of the household hazardous waste types you expect to collect. If you do not limit the materials that can be brought to your collection event, this figure will be 100 percent.
- About 1-2 percent of households within a county can be expected to participate in a county sponsored collection program.
- Approximately 3-7 percent of households within a municipality can be expected to participate in a municipal collection program.
- The accumulation factor refers to the average time lapse between purchasing a hazardous product and disposing of the unused portion. This figure is about five years and corresponds to the average frequency of changing residence. For first-time collection programs, multiply the estimated amount by five years to account for average holding time. Sponsors of annual programs can expect participation rates and quantities to diminish with time and decrease their figures by a proportionate amount.

Before deciding if you should host a collection event, it is wise to conduct a more detailed waste audit. This may involve conducting a residential survey, either by going house-to-house, or by mailing questionnaires. Some programs invite high school students to participate in waste audits for science and other school projects.

GETTING STARTED

All collection events must be registered with DEP. An application packet, complete with all the necessary forms and instructions, can be obtained by contacting:

*Department of Environmental Protection
Division of Waste Minimization and Planning
PO Box 8472
Harrisburg, PA 17105-8472
(717) 787-7382*

or email Hyatt.Thomas@dep.state.pa.us

The application procedure consists of completing three forms:

- The Application for Registration (2510-FM-LRWM0214) must be submitted at least 60 days prior to the first collection event.
- The Application for Reimbursement (2510-FM-LRWM0248) must be completed by the end of the fiscal year in which the program is/will be held.
- The Record of Operations Form (2510-FM-LRWM0084) must be submitted within 30 days following the collection event.

Proof of payment of expenses must be submitted with the Grant Reimbursement Form. At a minimum this will include:

- 1) payroll records or copies of both sides of canceled checks stating the gross amounts paid.
- 2) signed copies of monthly activities and travel logs.
- 3) itemized invoices.
- 4) proof of attendance at training courses, meetings, or functions.
- 5) minutes of local agency meetings for which employee attendance is being claimed as a reimbursable expense.

Specific questions and concerns about the application procedures and the department's funding criteria should be directed to the appropriate regional office. A list of regional offices can be found at the end of this handbook.

SUGGESTED TIMELINE

Begin planning early—at least 10 months in advance of the collection events. This time frame can be reduced for repeat programs, especially if they will entail the same contractor(s), sites, etc. A suggested schedule for a first-time event may look like the following:

Month 1

Establish a planning committee of about 10 to 12 people. Some issues that should be addressed include: public awareness and education, site selection, traffic control, site cleanup, contractor selection and financing.

Month 2

Complete an implementation strategy and schedule.

Month 3

Identify several potential collection sites and ask DEP to review them. Each site should be located at least 300 feet from any stream or ground-water-derived water supply. The site should accommodate the anticipated traffic flow (at least 80-100 participants each hour). Identify prospective contractors. DEP can verify if contractors are in compliance with environmental laws and regulations or inform you if there are enforcement issues that would disqualify them from consideration. Initiate a public awareness campaign and a waste audit. Investigate potential funding, including Act 190 grant assistance.

Month 4

Tentatively determine which wastes will actually be targeted for inclusion in the collection program. Complete a Request for Proposal (RFP) and draft a contract for waste management services.

Month 5

Determine if adequate funding is available to continue the program. Finalize your list of targeted and non-targeted items. Make estimates on the amounts of materials to be collected. With assistance from DEP, confirm the suitability of the collection site(s). Obtain owner authorization to use site(s), if it is not owned by the sponsor.

Finalize and issue the RFP, including a proposed contract. Make sure that the sponsoring agency's financial adequacy is reflected in the RFP. Request that DEP publish the RFP in the *Pennsylvania Bulletin*.

Month 6

Receive contractor bids.

Month 7

Select contractor and again verify financial adequacy. Initiate contracting process. With the assistance of the contractor, initiate the completion of the DEP Application for Program Registration.

Month 8

Finalize contractual arrangements with contractor. Make arrangements for disposal of any non-hazardous wastes that may show up. Finalize and submit your Registration and Grant Application Form to DEP.

Month 9

Expect DEP approval of the Registration and Grant Application during the middle of the month. Complete the acquisition of other funding required to carry out the program.

Month 10 & 11

Conduct the collection event(s). Return the collection site(s) to its/their original condition within 48 hours of event(s), or as otherwise approved by DEP. Within 30 days submit the Record of Operations Form to DEP. Complete an evaluation of the program to assist in the planning of next year's program. Once this service has been offered, there is usually a significant demand to make it an annual event.

OPERATION TIPS

Here are some tips to help make the facilitation of a collection event in your community an efficient and successful one:

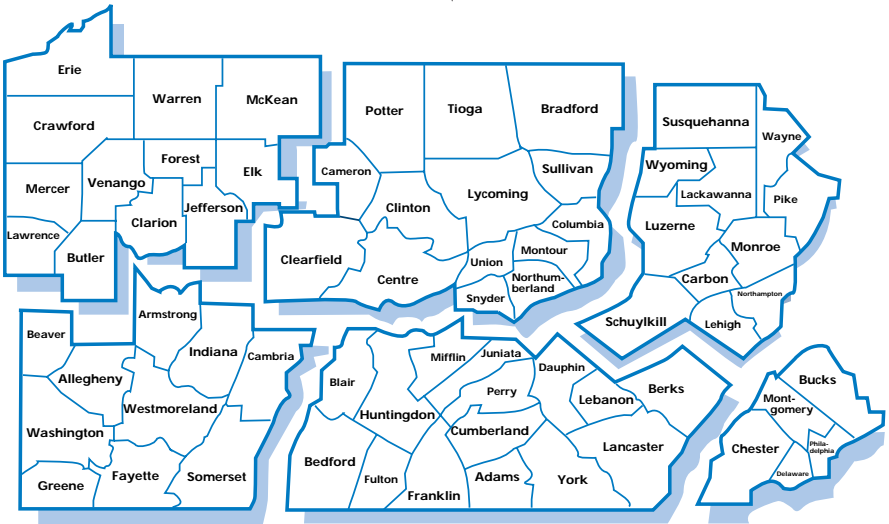
- Educate the public as to the scope of a collection event. Many chemicals that show up at a collection event are the result of the public's lack of knowledge about the wise purchase and use of them.

- Contact other programs. There is no substitute for first-hand experience. Let other people's mistakes work to your advantage. The experience of similar programs in nearby areas may help you make more accurate estimates regarding the amount of waste to be expected. A list of other programs and other information on HHW is available on the DEP homepage at: <http://www.dep.state.pa.us>. A HHW resource list is also available from DEP.
- Anticipate high costs associated with these programs. The major costs will be for contracted services involving the classification, packing, transportation and management of the collected hazardous waste materials. Generally, costs average 30 to 80 cents per pound of hazardous waste, but may run as high as \$1.00 per pound. Average costs per participant are typically in the \$50—\$125 range.
- Take advantage of the available funding. Contractors will be reluctant to prepare bid responses for sponsoring agencies that do not appear to be on sound financial footing.
- Provide special packaging and transportation instructions to the participants to ensure the safe transportation of all materials to the collection site.
- Expect to receive more participants and waste than may initially be anticipated. Be prepared to handle any and all traffic problems, including having to “shutdown” with many participants in line. Be prepared in lieu of shutdown to request emergency approval for additional funding.
- Take steps to reduce the amount of collected HHW requiring disposal. Waste motor oil, if collected, should always be recycled. Organizations such as little leagues, boy/girl scouts and other community groups often collect old paint. Restrict the materials that truly need to be disposed of as hazardous waste. Materials that do not qualify as hazardous may not need to be collected in the first place and, if collected, may possibly be disposed as municipal waste.

For more assistance, contact your DEP regional office, shown on the inside back cover, or call (717) 787-7382.

DEP REGIONAL OFFICES

Northwest Region	Northcentral Region	Northeast Region
<p>DEP, Bureau of Land Recycling and Waste Management 230 Chestnut Street Meadville, PA 16335-3481 (814) 332-6848</p> <p><i>Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Venango & Warren Counties</i></p>	<p>DEP, Bureau of Land Recycling and Waste Management 208 W. Third St., Suite 101 Williamsport, PA 17701-6448 (570) 327-3653</p> <p><i>Bradford, Cameron, Centre, Clearfield, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga & Union Counties</i></p>	<p>DEP, Bureau of Land Recycling and Waste Management 2 Public Square Wilkes-Barre, PA 18711-0790 (570) 826-2516</p> <p><i>Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne & Wyoming Counties</i></p>



Southwest Region	Southcentral Region	Southeast Region
<p>DEP, Bureau of Land Recycling and Waste Management 400 Waterfront Drive Pittsburgh, PA 15222-4745 (412) 442-4120</p> <p><i>Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington & Westmoreland Counties</i></p>	<p>DEP, Bureau of Land Recycling and Waste Management 909 Elmerton Avenue Harrisburg, PA 17110-8200 (717) 705-4706</p> <p><i>Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry & York Counties</i></p>	<p>DEP, Bureau of Land Recycling and Waste Management Lee Park, Suite 6010 555 North Lane Conshohocken, PA 19428-2233 (610) 832-6213</p> <p><i>Bucks, Chester, Delaware, Montgomery & Philadelphia Counties</i></p>

Note: Request the assistance of the staff member who has been assigned to the household/small business hazardous waste management program or call the Division of Hazardous Waste Minimization and Planning at (717) 787-7382.

Department of Environmental Protection
Division of Waste Minimization and Planning
P.O. Box 8472
Harrisburg, PA 17105-8472
(717) 787-7382

For additional environmental information on
this and other topics, visit the DEP through
the Pennsylvania website at
www.state.pa.us, or DEP directly at
www.dep.state.pa.us.



Tom Ridge, Governor
Commonwealth of Pennsylvania

James M. Seif, Secretary
Department of Environmental Protection