

# **ORGANIZING A HOUSEHOLD HAZARDOUS WASTE COLLECTION PROJECT**

## **Steps**

- Form a community based household hazardous waste (HHW) committee.
- Research which household materials constitute HHW.
- Investigate potential corporate sponsors.
- Research funding sources.
- Develop a citizen HHW awareness educational program.
- Choose a HHW collection date and time.
- Select a convenient HHW collection location.
- Contract a State of NH registered hazardous waste transporter for HHW collection services.
- Review NH Hazardous Waste Rules, Env-Wm 1003, "Household Hazardous Waste Collection Projects" regarding compliance regulations and grant application form requirements (enclosed).
- Advertise the HHW collection project to residents of participating communities.

## **Funding Sources**

- State of NH grant monies
- Local community funding (i.e., warrant article, line item of solid waste management budget)
- Solid waste district funding
- Corporate donations
- Funding from the NH Charitable Fund
- Adopt the local "Vehicle Registration Fee" (RSA 261:153, V) to generate funds

## ***Educational outreach suggestions***

### **Contact:**

- Local television stations
- Local radio stations
- Local and regional newspapers
- Local solid waste operators and the regional planning commission director
- Local civic organizations

### **Topics:**

- Reducing HHW generation in the home
- Alternatives to HHW
- Proper disposal options
- Dangers associated with mismanagement/improper disposal of HHW

### **Speak at:**

- Town meetings
- Planning board and conservation commission meetings
- School assemblies

### **Distribute HHW information brochures at:**

- Public buildings such as town or city hall, transfer station or recycling center, libraries
- Schools
- Businesses such as retail paint stores, hardware stores, and supermarkets

**It is important to educate the public about the hazards of and alternatives for household hazardous products.**

## **SAMPLE WORK PLAN**

### **HOUSEHOLD HAZARDOUS WASTE COLLECTION PROJECT**

The following work plan describes how the community collection day organizer and its hazardous waste contractor (contractor) shall handle the household hazardous waste (HHW) activities on the collection day.

#### **Material Flow**

As a homeowner arrives at the designated facility, posted signs shall direct him to the reception area. At that point, organizer representatives shall meet the incoming vehicle and survey the participant for name, resident's location, types and approximate amounts of HHW brought to the collection (participant survey provided by DES). The homeowner is offered educational information on alternative, non-toxic household products and proper HHW disposal. Also, educational material is offered that describes the environmental effects from the improper disposal of HHW.

The participant then drives to the unloading area where the contractor shall remove the HHW from the vehicle and take it to the handling tables. At this point, the contractor takes custody and becomes the "generator" of the waste.

In the event that a collection day participant exceeds the amount of waste allotted for disposal (usually 10 gallons or approximately 85 pounds), the organizer's project manager shall be advised. The excess waste shall only be accepted with the authority of the organizer's project manager.

The contractor shall segregate "known" wastes from "unknown" wastes. Separate tables shall be used. Known wastes shall be transferred from their table to one of three repackaging tables: solvents, corrosives, and pesticides/poisons. The contractor's personnel shall man those tables, repackage the wastes as necessary, record information about the wastes for manifest purposes and containerize them as necessary. The wastes shall be packaged on-site so that they may be properly managed (recycled or disposed). If possible, both oil-based and latex paints shall be accepted for recycling. If the contractor does not have access to a paint recycling facility, the participants can safely be directed to dry out the latex paint and dispose of it with the regular household trash. It is imperative that the organizer determines if the contractor can accept latex paint before the collection so participants can be directed to either bring the latex to the HHW collection or be directed to dry it out and dispose of it as solid waste.

Unknown wastes shall be transferred from the collection table to the analysis area by the contractor's personnel. The contractor shall conduct a simple chemical analysis on these wastes to determine the appropriate classification. Following classification, the wastes shall then be packaged for transportation to an authorized hazardous waste facility.

Once a shipping container has been filled with waste, it shall be properly sealed and labeled for shipment. Manifests shall be initiated by the contractor. Upon completion of the collection at the end of the day, the vehicle shall transport the wastes to an authorized treatment and disposal facility. No wastes shall leave the site until they are properly packaged and manifested.

## **Personnel Requirements and Duties**

### **Reception Area**

The organizer's personnel shall be present at the reception area. Their tasks shall be to screen participants for residency and the amounts of HHW to be dropped off, and to direct vehicle traffic to the proper collection location.

### **Collection Area**

The organizer's personnel shall be present at the collection area to maintain order and answer participants' questions. They may help unload the HHW from the participants' vehicles with the permission of the contractor's project manager. They shall then transfer the wastes to the "known" and "unknown" tables as deemed appropriate by the contractor's project manager.

The organizer's project manager shall supervise and assist with the off loading of the HHW only with the permission of the contractor. If questions or disputes regarding the quantities or types of HHW to be disposed arise, the organizer's project manager shall resolve them. As a general guideline, if the amount of HHW slightly exceeds the allowable disposable quantities allowed, the participant's HHW should not be turned away. If a participant brings in excessive amounts of HHW, that waste will only be accepted with the authority of the organizer's project manager.

The minimum number of contractor personnel required is:

- 1 Project manager/safety officer
- 1 Chemist
- 2-4 Recovery technicians (dependent on the estimate of the volume of HHW anticipated by the organizer's project manager)

### **Problem Resolution**

All problems shall be resolved between the organizer's project manager and the contractor's Project Manager.

### **Small Quantity Generator (SQG) Waste**

At this time, New Hampshire Hazardous Waste regulations do not allow small quantity generator waste to be taken during HHW collections unless the facility has been permitted to do so.

### **Equipment**

To facilitate traffic movement of participants and to assure the flow and repackaging of HHW, the contractor shall provide the following equipment.

#### **Reception Area**

- 1 Tent (approximately 9' x 12')
- 1 Table (4' x 8')
- 3 Chairs

### **Collection Area**

1 Tent (approximately 9' x 12')  
3 Tables (4' x 8')  
10 mil Polyethylene (to underlie and spread 3' in front of the handling tables and repackaging tables)  
5 Chairs

### **Analysis Area**

1 Tent (approximately 9' x 12')  
Lab trailer or lab station with cover  
2 Tables (3' x 8')  
2 Chairs

### **Miscellaneous**

Box trailer with power tailgate	24 traffic cones
Dumpster	Eyewash unit
Banner tape	1 Portable toilet
Rack truck	Decontamination equipment
Portable emergency shower	Fire extinguishers

### **Expendable supplies (by contractor)**

Tyvek suits  
Soda ash  
Half-face respirators with organic vapor cartridges and pesticide cartridges  
Gloves (surgical and chemical protective)  
Boots  
Labels (DOT Warning, Hazardous materials)  
DOT approved shipping containers  
Vermiculite or "Speedi Dri" for lab packing  
"Speedi Dri" for absorbing spills  
Hazardous waste manifest forms  
Eyewash liquid  
Pencils and pens  
Clipboards  
Decontamination liquids

It shall be the responsibility of the contractor's project manager to develop and coordinate site-specific evacuation plans. Predetermined evacuation routes shall be designated by the contractor's project manager after consultation with the on-scene fire department personnel and the organizer's project manager. See the sample diagram for the setup for the Household Hazardous Waste collection site plan.

## **SUGGESTIONS FOR REDUCING COSTS OF A HOUSEHOLD HAZARDOUS WASTE COLLECTION PROJECT**

- Solicit volunteer help for publicity, educational campaigns and necessary services for the HHW collection project such as traffic control, conducting participant surveys and assisting the community organizer as requested.
- Request that local businesses and industries donate equipment and materials, or volunteer personnel for the helping in the HHW collection. Volunteers from local area businesses, government agencies and educational institutions may reduce labor costs for the event. Participation by local business and industry may result in positive public relations with the community and boost community spirit for the importance of the proper management of HHW.
- When soliciting bids from potential HHW contractors, request that the bid be based on the number of household served by the collection event rather than by the types and amounts of HHW collected.
- Reduce the amount of HHW by reducing the generation of HHW at the source, the consumer. In a community's resident educational effort, the organizer should encourage residents to use non-hazardous alternatives for cleaning fluids, pesticides and other hazardous products. Encourage residents to purchase only as much of a hazardous product as they will consume.
- Reduce the amount of HHW being collected at the one day HHW collection event. For example, oil-based and latex paints typically comprise up to 70 percent of the HHW collected. Organizers of HHW collections can reduce the quantity of paint by participating in a recycling program, which uses feedstock from a community paint collection program. The collection of paints must occur at a NH Department of Environmental Services permitted solid waste facility (call 271-2047 for details). Organizers of HHW collections may also eliminate used motor oil from their HHW collection events. Used oil can be used as fuel for heating a public works garage, transfer station or other public building. A DES grant program can provide information and funding up to \$2,500 (call 271-7837 or 1-888-TAKEOIL for details).
- Work with surrounding communities to establish regional HHW collections. This will reduce each community's HHW handling costs. Contact DES to find out what communities in your area are participating.
- Examine long-term solutions for HHW management including establishing regional, permanent HHW collection centers. By establishing a permanent HHW collection center, the participating communities can reduce the cost of HHW disposal by storing partially filled containers of HHW until subsequent collections can fill them.

**SAMPLE**  
**SITE SAFETY, SPILL RESPONSE AND EMERGENCY EVACUATION PLAN**  
**HOUSEHOLD HAZARDOUS WASTE COLLECTION PROJECT**

It is important to recognize that in the handling of HHW, extreme caution should be taken to prevent any accidents, spills or fires. With unprotected people on or near the collection site, serious consequences could result from any mishap. The contractor's project manager shall be responsible to implement a safety plan and provide assurances that all of the contractor and organizer's personnel are familiar with the safety precautions, spill cleanup procedures and evacuation plans. The contractor's project manager is also responsible for notifying and coordinating spill, accidental release or fire response protocols with the local fire department and with the organizer's project manager.

**Site Safety**

For the purposes of assigning levels of personal protection, each collection site should be divided into three distinct sections, each requiring specific personal protection and safety requirements.

**Waste Handling Area**

This area encompasses all "active" areas of the waste collection site where waste materials are being examined, analyzed, packaged or opened. The waste handling area encompasses those areas where the HHW becomes the responsibility of the contractor, known and unknown waste stations, drum packaging stations and the analysis area.

The contractor shall provide Level C personal protective equipment for persons working within this area. Level C protective equipment includes:

- Half-face, air-purifying respirator with Organic Vapor Cartridges and Pesticide Cartridges as appropriate
- Chemical protective coveralls (Tyvek or equivalent)
- Gloves (inner: surgical, outer: chemical protective)
- Boots (chemical protective)
- Full face shields

**Collection Area**

These are locations within the collection sites where participant surveys are completed, wastes are accepted from residents and wastes are being presented to the contractor for packaging and analysis.

The contractor shall provide Level D personal protective equipment for persons working within this area. Level D protective equipment includes:

- Coveralls (cotton or Tyvek at the waste handling area)
- Gloves (surgical)
- Boots or safety shoes
- Safety glasses (when handling any wastes)

## **Analysis Area**

This area is within the waste handling area where the contractor's chemist and technician classify and analyze the waste for proper handling and packaging for transportation to an authorized hazardous waste facility.

## **Clean Area**

The organizer's project manager and contractor's project manager shall designate a location at each collection site as a "clean area". It is only within this area that the organizer's personnel and contractual personnel will be allowed to take breaks, smoke or eat meals. The area will be located away from and upwind of the unloading and packaging areas. All personnel shall remove protective equipment and wash before entering the clean area.

## **Safety Procedures**

It is the responsibility of the contractor's project manager to enforce the following safety practices:

- Eating, drinking, chewing gum or tobacco, smoking or any other practice that increases the probability of hand to mouth transfer and ingestion of hazardous material is prohibited in any area where the possibility of contamination exists.
- Hands and shoes must be thoroughly washed upon leaving the work area and before eating, drinking or any other activities take place.
- Thorough body washing should occur whenever emergency decontamination procedures for outer garments are required. The washing should occur immediately after the outer garments have been removed.
- No excessive facial hair that could interfere with the satisfactory fit of the respirator mask, face seal will be allowed on personnel required to wear protective respirators.
- Unnecessary contact with contaminated or suspected contaminated surfaces should be avoided. Whenever possible, all personnel should avoid walking through puddles, mud or other discolored liquids; kneeling on the ground; leaning, sitting or placing equipment on drums, containers or waste transportation vehicles.
- Medically prescribed drugs for personnel on response operations where the potential for absorption, inhalation or ingestion of toxic substances exists should only be used after consultation with a qualified physician.
- Alcoholic beverage intake is prohibited.

## **Spill Response and Evacuation Procedures**

The contractor's project manager and other contractual personnel shall be responsible for coordinating the rapid response and thorough cleanup of all spills that may occur at the collection site. The contractor shall follow a recommended and accepted response and cleanup protocol such as outlined in NH *Hazardous Waste Rules*, Env-Wm 513 and Env-Wm 608 (Emergency/Remedial Action).

### **SUGGESTIONS FOR SITE SELECTION AND CHOOSING A HAZARDOUS WASTE CONTRACTOR HOUSEHOLD HAZARDOUS WASTE COLLECTION PROJECT**

#### **Site Selection**

- Choose a site that is conveniently located for the majority of residents in the participating communities.
- A good HHW collection site is one, which provides a safe environment for handling hazardous waste.
- Select a site which provides parking for 20-30 cars such as a:
  - Department of public works garage
  - Community solid waste transfer station or recycling center
  - School or municipal building parking lot
- The area where the waste is collected and packaged should be set up on an impermeable, non-absorbent surface so spills can be easily contained and cleaned up.
- The site should provide shelter for the HHW collection workers handling the wastes. In the event of inclement weather, the workers and the containers of HHW must be kept dry. If the site does not provide adequate shelter, the contractor should provide a temporary tent.
- Seek approval for the selected site from the local government and the NH Department of Environmental Services.

#### **Choosing a Hazardous Waste Contractor**

- ☞ Costs may vary from each contractor based on the rates for HHW disposal, the distance to the hazardous waste disposal facility, the waste management option used for the waste, the amount and type of HHW collected, and the number of staff assigned to the collection.
- ☞ Contractors' services for HHW programs can vary in cost. Some contractors act as "brokers" while others may own the hazardous waste disposal facility where the collected HHW is brought. In the latter case, a better treatment/disposal price may be obtained, however, other costs may be higher.
- ☞ After receiving bid responses from potential contractors, compare line item costs closely. Some contractors may charge a high cost on one waste stream but low on another waste stream. Do careful cost comparisons.
- ☞ Check the contractors HHW collection experience level with household hazardous waste programs and their service records (i.e. compliance with state and federal laws)



👉 Ask the contractor to work with you, the organizer, to help reduce your community's costs. Suggest to the contractor that they consolidate similar HHW instead of lab packing and recycle paint products and used motor oil. Inquire of the contractor's waste handling capabilities before accepting the final bid.

