REPORT OF THE
DEPARTMENT OF ENVIRONMENTAL QUALITY

The Collection and Disposal of Household and Conditionally Exempt Hazardous Waste in Virginia

TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA

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TO: The Honorable L. Douglas Wilder
Governor of the Commonwealth

The Members of the General Assembly of Virginia

FROM: The Department of Environmental Quality
The Department of Emergency Services

DATE: November 1, 1993

The safe management of household hazardous waste and hazardous waste generated by small businesses has become an increasingly important issue for many citizens and local governments in the Commonwealth. Recognizing this, the 1993 General Assembly enacted House Joint Resolution 515, asking the Department of Environmental Quality and the Department of Emergency Services to study the potential benefits of establishing programs for the collection of household hazardous waste and conditionally exempt hazardous waste generated by businesses and other organizations.

The Departments of Environmental Quality and Emergency Services worked with a citizens advisory committee comprised of eleven representatives from local governments, planning district commissions, hazardous waste collection programs, conditionally exempt small quantity generators, chemical waste contractors, and concerned citizens. This group helped to define the issues and possible solutions that exist for the management of these hazardous wastes.

The committee, the Department of Environmental Quality, and the Department of Emergency Services hope that their work and the attached report will contribute to an improved understanding of the management of household and conditionally exempt hazardous wastes.

EXECUTIVE SUMMARY

In 1976, Congress passed The Resource Conservation and Recovery Act (RCRA) which regulates the treatment, storage and disposal of hazardous and solid waste. Congress specified that two types of waste would not be subject to full regulation as a hazardous waste under RCRA; these wastes exhibit the properties of hazardous waste but are exempt from regulation solely because of their origin (households) or because they were generated in quantities below the threshold for regulation (Conditionally Exempt Small Quantity Generators or CESQGs). Household hazardous waste is excluded from the definition of hazardous waste while CESQG hazardous waste is included in the definition of hazardous waste but exempt from most of the regulatory requirements for hazardous waste. Under current guidelines, these corrosive, ignitable, toxic, or reactive wastes can be, and often are, disposed of in municipal solid waste landfills, incinerators, or through waste water treatment facilities, none of which are specifically designed to protect the environment from hazardous wastes.

There are many opinions concerning the actual risk to the environment from the disposal of household and CESQG hazardous waste in the municipal waste stream; there are even more opinions about hazardous waste collection programs, especially when the potential risk is compared to the cost of collection and disposal programs. Many people think that when hazardous waste from households and CESQGs are disposed of with the municipal solid waste stream, the hazardous waste is diluted to the point that any risk of harm is minimal; however, risks to the environment from hazardous waste managed in this manner do exist. Some of the problems that may arise from hazardous waste in the municipal waste stream are environmental poisoning such as ground-water contamination, injuries to waste management workers, and equipment and property damage.

Ten communities and public service authorities in Virginia have recognized this danger and have provided some type of household hazardous waste service which collects and disposes of household hazardous waste in an environmentally safe manner; ten more communities are currently planning collection programs. These programs range from one-day collection services to permanent collection facilities. The average number of households participating in these programs was reported as 28,783 or 1.31% of the population. The one-day collection programs collected an average of 15,000 lbs. of waste at an average cost of $44,000, or $5,900 per ton, and the permanent collection programs collected an average of 47,000 lbs. of waste at an average cost of $129,000 per year, or $5,500 per ton. The leading source of funds for these programs is local government general funds. Four of the programs are funded through landfill tipping fees and Loudoun County was able to fund its program through an EPA region III Solid Waste Management Assistance Program Grant in the amount of $25,000.

In a 1993 survey, the Department of Environmental Quality asked local governments how the Commonwealth could assist local governments with household hazardous waste management. Communities in Virginia indicated that they would like to receive assistance from the state in organizing and operating collection programs; requests for training and education for both facility staff and the general public appeared

most frequently, but respondents also requested regulatory guidelines for the operation of collection programs, financial assistance, and acknowledgement of unique programs.

A 1993 survey of Conditionally Exempt Small Quantity Generators or CESQGs (those who generate less than 220 pounds of hazardous waste per month) in Virginia indicated that each CESQG generates an average of 1,258 lbs. of hazardous waste every year and that they spend an average of $1,350 per year in managing thes· wastes. The cost to manage these wastes ranged from $200 to $4,500 per year with 24 % spending more than $2,000 and 34% spending less than $1,000 per year. Respondents also suggested that the state provide (1) information or assistance to small generators so they can consolidate disposal of their hazardous waste with other generators in order to share transportation and disposal costs, (2) increased, simplified information for generators on the safe management of hazardous waste, and (3) convenient public collection stations for conditionally exempt hazardous waste.

Other states are faced with the dilemma of what to do with hazardous wastes that are not regulated by USEPA. The 37 states that reported having a household hazardous waste program offer the following types of programs:

(1) 18 states provide grants for collection programs;
(2) 9 states provide technical advice and community education materials or programs;
(3) 7 states require localities to provide some type of HHW collection service;
(4) 6 states either operate or fully fund collection programs (2 of these states recently discontinued their programs for financial reasons);
(5) 6 states regulate household hazardous waste as a hazardous waste or as a special type of hazardous waste;
(6) 3 states operate or have operated pilot projects; and
(7) 1 state requires labeling of hazardous materials and a special license and fee for retailers who sell hazardous household materials.

States fund these programs through a variety of sources, the most common being a solid waste tipping fee or a special tax on hazardous household materials. Respondents also listed state general funds, state property taxes, dedicated funds from industry fees, and environmental protection bonds as a funding source for their programs.

Virginians are concerned about the safe management of household and CESQG hazardous waste, but hazardous waste collection and disposal programs are expensive. At this point, one of the most efficient and effective ways the Commonwealth can assist with the management of these wastes is through public education programs targeted at private citizens, local governments, and business owners. These programs could include information on the identification and safe management of hazardous wastes, information on how to organize hazardous waste collection programs, and information about collection programs operating in Virginia as well as information about reducing the total amount of hazardous waste in the waste stream.

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I. INTRODUCTION

Over the past 20 years, the proper management of hazardous waste, defined as wastes that are corrosive, ignitable, toxic or reactive, has become an increasingly important issue. In 1976, Congress passed the Resource Conservation and Recovery Act (RCRA) which regulates the treatment, storage and disposal of hazardous and solid waste. Congress followed that with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980 and the Superfund Amendments and Reauthorization Act (SARA) of 1986. These three measures combine to help prevent future and correct past environmental problems from solid waste and the major sources of hazardous waste - businesses, industries, military installations and government operations. In addition, Virginia has adopted regulations for the management of hazardous and solid waste.

While recognizing that household hazardous waste is not benign, Congress chose not to include household hazardous waste in RCRA's coverage of hazardous wastes. Many materials that are potentially dangerous to human health or the environment appear in household products such as oven cleaners, paint thinners and pesticides. When disposed of, generally with other household waste, these products become household hazardous waste and often end up in municipal solid waste landfills, waste-to-energy facilities and waste-water treatment plants. The exact amount of household hazardous waste generated each year is unknown, but several studies indicate that household hazardous waste is less than 1% of the municipal solid waste stream.[1]

Congress also chose to exempt businesses that generate less than 220 lbs., approximately one-half of a 55 gallon drum, of hazardous waste per month from many of the hazardous waste regulations in RCRA. There are over 4,000 known Conditionally Exempt Small Quantity Generators (CESQGs) in Virginia, and at least as many more that are unknown. This number includes dry cleaners, automotive shops, dentists, public schools, and paint shops. Current Virginia regulations allow landfill disposal of hazardous wastes by CESQGs only when specific permission has been obtained in writing from the landfill operator. (VSWMR Sec. 5.1.C(16)). This permission is difficult, if not impossible, to obtain because a landfill operator who accepts such waste is potentially liable under CERCLA for any environmental hazards that may occur. As a result, many CESQGs contract with a hazardous waste disposal company to ensure safe treatment and disposal of their hazardous wastes.

In response to the increasing concern over the environment and the proper disposal of potentially harmful wastes, communities in Virginia and across the country have conducted household hazardous waste collection days or established permanent household hazardous waste collection centers. Household hazardous wastes that are collected this way are still exempt from regulation under RCRA and may be disposed of according to

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[1] Solid Waste Report, April 29, 1993.

the regulations for the disposal of non-hazardous municipal solid waste. There has also been some interest in establishing hazardous waste collection programs for Conditionally Exempt Small Quantity Generators.

II. STUDY PURPOSE

In 1993, the General Assembly adopted House Joint Resolution 515 requesting the Department of Environmental Quality (DEQ) and the Department of Emergency Services (DES) to study the need for a household hazardous waste collection and disposal program in Virginia. This study addresses: 1) the potential benefits and costs of requiring or creating incentives for the establishment of local household hazardous waste collection and disposal programs; 2) the need for programs to collect and dispose of hazardous waste generated by Conditionally Exempt Small Quantity Generators (CESQGs); and 3) the effectiveness of collection programs operated by localities in the Commonwealth and other states. A copy of HJR 515 appears as Appendix A.

III. STUDY METHODS

In order to provide the information requested in HJR 515, DEQ and DES have carried out the following activities:

1. Established a Citizens Advisory Committee comprised of representatives from local governments, planning district commissions, hazardous waste collection programs, Conditionally Exempt Small Quantity Generators, chemical waste contractors, and concerned citizens. A list of committee members is attached as Appendix B. During the course of this study, the committee met three times.

2. Gathered technical information on household hazardous waste and Conditionally Exempt Small Quantity Generators.

3. Conducted research surveys in the following areas:
   a) Local Governments: Conducted a survey of local governments for information on household hazardous waste collection and disposal programs in their community.
   b) Conditionally Exempt Small Quantity Generators: Conducted a survey of CESQGs for information on their hazardous waste management practices. This survey was sent to 400 companies and organizations.
   c) Other States: Conducted a survey of all other states for information on their approaches to the management of hazardous wastes not regulated by the USEPA.

IV. BACKGROUND INFORMATION ON HOUSEHOLD AND CONDITIONALLY EXEMPT HAZARDOUS WASTE

A non-regulated hazardous waste is defined as any waste that exhibits the properties of hazardous waste but is not subject to full regulation as a hazardous waste solely because of its origin (households) or because it was generated in quantities below the threshold for regulation (Conditionally Exempt Small Quantity Generators or CESQGs). Household hazardous waste is excluded from the definition of hazardous waste while CESQG hazardous waste is included in the definition of hazardous waste, but exempt from most of the regulatory requirements for hazardous waste. A material is classified as hazardous if it: 1) exhibits the characteristics of ignitability, corrosivity, reactivity, or toxicity; or 2) is specifically listed as a hazardous waste (details of the federal definition are given in the Code of Federal Regulations (CFR), Title 40, Part 261).

While the exact amount of household hazardous waste in the municipal waste stream is unknown, most estimates place it at around 1%. In 1987, the U.S. EPA studied solid waste in two communities and determined that household hazardous waste was less that four tenths of 1% of the municipal solid waste stream. The average household in the EPA study discarded approximately 55-60 grams of household hazardous waste per week. This is approximately 4-5 pounds per person per year.[2] In a 1993 report, the Solid Waste Report estimated that households generate 22 lbs. of hazardous waste each year.[3] A list of some typical household hazardous wastes and their hazardous components is attached as Appendix C.

Because CESQGs are exempt from the reporting requirements for hazardous waste generators, there is very little information available on the total amount of hazardous waste that CESQGs contribute to the waste stream. The state of Washington has collected data showing that CESQGs account for two-thirds of the total hazardous waste stream in Washington.[4] While the results of the Washington study are informational, there are many variables, such as the number of large quantity generators, that will considerably alter this figure for Virginia.

The presence of household and other non-regulated hazardous waste in the municipal waste stream can place homeowners and waste-management workers at risk, cause damage to equipment and property, and contaminate the environment.

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[2] Characterization of Municipal Solid Waste in the United States, 1992 Update, U.S. EPA, 1992.

[3] Solid Waste Report, April 29, 1993.

[4] HHW/CESQG Consensus Meeting, Waste Watch Center, October 1992.

The National Solid Waste Management Association has documented a variety of injuries to waste management workers due to the presence of hazardous waste in the solid waste stream. Homeowners who improperly store or dispose of hazardous materials can suffer similar injuries. Exposure to hazardous waste has resulted from spills, spraying (e.g., from packer trucks during compaction), touching, fumes, fires, and explosions. Injuries have included burns (acid, caustic, and thermal), blindness, eye irritation, respiratory problems, rashes, nausea, cancer, and birth defects.[5]

Hazardous wastes disposed in refuse can also cause equipment and property damage. While no documentation exists of such instances in Virginia, a number of businesses and government agencies that collect refuse across the country have experienced vehicle fires due to improperly disposed of hazardous wastes. Fires are typically the consequence of either flammable materials coming into contact with an ignition source or incompatible materials mixing and reacting. Compaction vehicles tend to liberate materials from containers, thereby contributing to hazardous incidents, but incidents involving household hazardous waste also occur in loose loads. In addition, waste processing facilities, such as refuse derived fuel (RDF) processing plants, report damage from hazardous wastes that are disposed of with other municipal wastes.

The environment is also potentially at risk from household and CESQG hazardous wastes. Although they cannot be targeted as a sole contaminant of groundwater, a link can be drawn, particularly at municipal solid waste landfills. The U.S. Environmental Protection Agency (USEPA) reports that indirect evidence links household hazardous waste to groundwater contamination[6] and a 1989 report prepared by the Virginia Department of Waste Management states that "indirect evidence suggests that non-regulated hazardous waste may contribute to groundwater contamination.[7] Certainly the number of municipal waste landfills on the Superfund National Priority List supports the idea that these landfills might have received non-regulated hazardous waste as a regular component of the waste stream.

The potential impact of hazardous waste disposal in municipal solid waste (MSW) landfills instead of in facilities specifically designed to protect the environment from hazardous wastes has been evaluated by examining the leachate (liquid that soaks through waste material) and landfill gas generated at these sites. The U.S. Environmental Protection Agency correlated leachate data from 53 landfills in 1988. The concentrations

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[5] National Solid Waste Management Association (NSWMA), Examples of Small Quantities of Hazardous Waste in Trash, Washington, D.C., 1984.

[6] U.S. EPA, A Survey of HHW and Related Programs, October, 1986.

[7] Virginia Department of Waste Management, Non-Regulated hazardous Wastes in Municipal Waste Streams, March 1989.

of various hazardous constituents were measured in MSW leachate and landfill gas and a comparison was made between the non-hazardous and the hazardous landfill sites. A non-hazardous landfill was defined in this study as one that was not known to have accepted hazardous waste. The results indicated that there was in fact very little difference between the two types of sites.[8] In another study, the California Air Resources Board concluded that the overall composition of landfill gases from hazardous and non-hazardous sites appeared to be similar, with no major distinguishing characteristics indicating from what type of landfill the sample was obtained; there was hazardous waste in 86 percent of the landfills tested, regardless of what type of waste the site was known to have accepted.[9] These landfill gas test results show that non-hazardous landfills may contain concentrations of toxic gases equal to or exceeding those of hazardous landfills. While this would seem to indicate that a certain percentage of the waste disposed of in solid waste landfills is hazardous, it is important to note that many toxic components of leachate and landfill gas can be generated by non-hazardous waste.

While household and CESQG hazardous waste is not fully regulated as a hazardous waste under RCRA, CERCLA, the federal "Superfund" program, does not contain any exclusions for household waste or any exclusion based upon the amount of waste generated. Any waste that qualifies as a hazardous substance under CERCLA is subject to the Act's liability provisions. Through effective CESQG and household hazardous waste management, municipalities can divert hazardous waste from locations were they could potentially face liability under CERCLA.

IV. HOUSEHOLD HAZARDOUS WASTE COLLECTION PROGRAMS

In an effort to develop solutions for the issues household hazardous waste management presents, some communities have developed programs for the collection and disposal or exchange of household hazardous waste. Generally, these programs are operated as either one-day collection programs or as a permanent collection facility.

A. ONE-DAY COLLECTION PROGRAMS

The most common type of household hazardous waste management program has been the one-day collection event. In these programs, household hazardous wastes are brought to a specified site on a designated day. The wastes are accepted from the public, usually free of charge, and properly packaged for recycling, treatment or disposal.

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[8] United State Environmental Protection Agency, Report to Congress on Solid Waste Disposal in the United States, EPA/530-SW-88--011B, Washington, D.C., October 1988.

[9] State of California Air Resources Board, The Landfill Gas Testing Program: a Second Report to the California Legislature, Sacramento, California, June 1989.

Participation rates in one-day collection programs have typically been in the range of one to three percent of households in the community.[10] In some communities, these one-day collection programs have evolved into periodic collection programs.

Some of the shortcomings encountered in one-day collection programs include: (1) long lines and waiting times; (2) lack of scheduling convenience; (3) high costs per day of operation; and (4) limited recycling of wastes. These programs have, however, been successful in diverting hazardous wastes from the municipal solid waste stream and in educating the public about the problems associated with household hazardous waste. Also, one-day programs allow communities to offer a household hazardous waste management program without large capital investments.

B. PERMANENT COLLECTION FACILITIES

Approximately 150 communities across the country have established permanent household hazardous waste collection facilities.[11] Many of these communities began hosting one-day collection events and then decided that a permanent collection program would be more cost efficient. The permanent facilities typically consist of a building constructed for the processing and storage of household hazardous wastes delivered to the site by residents. Wastes are shipped from the facility for recycling, treatment, or disposal when full truck loads are accumulated or when storage time limitations are reached.

Permanent facilities offer residents the convenience of year-round disposal services. One of the most common occasions for household hazardous waste disposal is when residents move, but a move rarely coincides with a one-day collection event. From the perspective of a collection program operator, the distributed waste-flow at a permanent facility results in a more controlled and manageable operation. Another major benefit of a permanent facility is an increased ability to send hazardous waste off-site for recycling and treatment and a corresponding decrease in land disposal. Some permanent facilities report that less than ten percent of the waste collected is sent for landfilling. In contrast, one-day collection programs often involve packing the majority of waste received and sending it to hazardous waste landfills or incinerators. Recycling is enhanced at permanent facilities because of: (1) facility features which allow for bulking and treating wastes; (2) protection from the weather provided by a building; (3) a more evenly distributed waste flow; (4) increased processing time available; and (5) increased testing capabilities to verify the make-up of waste received.

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[10] Lund, Herbert F., The McGraw-Hill Recycling Handbook, 1993.

[11] Lund, Id.

One drawback of a permanent storage facility is the potential risk from storing and accumulating full truckloads of hazardous materials in one place. Unlike industrially generated hazardous waste, there are times when neither the householder nor the accepting facility is knowledgeable about the waste brought in. A label on the can does not mean that the contents have not been substituted. This type of misinformation could lead to storage of incompatible substances in close proximity. The people accepting the materials must be able to ascertain that the materials brought in are properly identified and separated.

C. DEPARTMENT OF ENVIRONMENTAL QUALITY PROGRAMS AND OTHER STATE AGENCY PROGRAMS

The Virginia Department of Environmental Quality has developed an Interim Policy Statement to assist citizens and local governments with the collection and disposal of household hazardous waste. A copy of this policy statement is attached as Appendix D. The Department is also developing a citizen's guide to household hazardous waste to assist citizens with the safe management of their household hazardous wastes.

One of the most common and effective ways to cope with the problem of household hazardous waste is through citizen education on source reduction. The Department of Environmental Quality encourages people to: (1) use non-hazardous alternatives whenever possible; (2) read the manufacturer's label before purchase to determine if a product will be effective; and (3) buy the smallest container possible to avoid the need to store or dispose of surplus.

Since 1989, the Department of Agriculture and Consumer Services (DACS), with the assistance of the Department of Environmental Quality and its predecessor agencies as well as the Division of Consolidated Laboratory Services and Virginia Polytechnic and State University Cooperative Extension Service, has conducted twelve pesticide "clean days" to assist farmers with the disposal of unwanted pesticides. As a part of these collection programs, hazardous waste contractors were hired to visit each farm in a designated area requesting the service and collect any unusable or unwanted pesticides. After collection, the pesticides collected were taken to hazardous waste treatment and disposal facilities. A total of 156,763 pounds of pesticides have been collected at a cost of $606,340.83 or $3.87 per pound. DACS plans to continue this program in 1994.

D. HOUSEHOLD HAZARDOUS WASTE PROGRAMS IN VIRGINIA

Local governments and public service authorities in Virginia were asked to respond to a survey about household hazardous waste collection programs. The responses were divided into four major categories: those currently operating a local program or involved in a regional program, those actively pursuing or planning a program, those in which

there is public interest in such a program, and those in which there is no substantial interest in a collection program. The number of responses in each category are as follows:

- HHW program in operation	10
- actively planning a HHW program	10
- public interest, but no program	47
- no known public interest	51

A brief description of each household hazardous waste collection program is attached as Appendix E. The average number of households participating in these collection programs was reported as 28,783 or 1.31% of the population. The one-day programs collected an average of 15,000 lbs. of waste at a cost of $44,000, or $5,900 per ton, and on-going programs collected an average of 47,000 lbs. of waste at an average cost of $129,000 per year, or $5,500 per ton.

The leading sources of funds for these programs are local government general funds. Four of the programs are funded through landfill tipping fees and Loudon County was able to fund its program through an EPA region III Solid Waste Management Assistance Program Grant in the amount of $25,000.

The primary reason localities gave for not operating a household hazardous waste collection program was the cost of such programs. Also given as reasons for not conducting a collection program were the size or dispersed nature of the community, lack of manpower, and potential liability.

A majority of the communities that do not have a household hazardous waste collection program are rural. Several respondents noted that rural communities share characteristics that often create barriers to effective waste management, including household hazardous waste management. These characteristics of low population and housing densities, low tax bases, and lower average incomes than non-rural communities combine to make organization, education, and funding for household hazardous waste management especially challenging.

The recipients were also asked what information or support they would like to receive in organizing and operating a collection program. Requests for training and education for both facility staff and the general public appeared most frequently. Respondents also requested regulatory guidelines for the operation of collection programs, financial assistance, and acknowledgement of unique programs.

V. HAZARDOUS WASTE MANAGEMENT BY CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS

When Congress passed the Resource Conservation and Recovery Act (RCRA) in 1976, it chose to exempt businesses that generate less than 220 lbs. of hazardous waste per month from regulation as a hazardous waste under the Act. USEPA's intent behind its Subtitle C Regulations for the management of hazardous waste was to allow states to determine what controls are necessary for the management of CESQG waste. This intent was clarified in a July 22, 1992 memorandum from Sylvia Lowrance, Director of the USEPA Office of Solid Waste, which stated:

> "Programs and facilities receiving and mixing CESQG waste and HHW are subject to requirements imposed by States through the States' municipal or industrial permit, license, or registration programs, but are not subject to the full hazardous waste Subtitle C regulations, even if the mixed CESQG and household hazardous wastes were to exhibit a characteristic of hazardous waste. The collection facility does not become the generator of the mixture merely by mixing CESQG waste with non-hazardous waste, and regardless of the quantity of the mixture of the wastes, is not subject to the 40 CFR Part 262 generator regulations...application of Sec. 261.5 (h) (45 FR 33102-33104) to collection programs that mix CESQG waste and household hazardous waste would create an unintended barrier to programs whose intent is to dispose of these wastes economically and in an environmentally sound manner."[12]

This clarification is important because many communities and businesses are concerned about CESQG waste management. Some communities are interested in separating and collecting CESQG hazardous waste from the municipal waste stream and many CESQGs are interested in participating in hazardous waste collection programs. The memorandum quoted above makes it clear that communities can consider accepting CESQG hazardous waste at their household hazardous waste collection facilities without subjecting themselves to stricter federal regulatory requirements. The states were, however, given the authority to implement different requirements for the management of these wastes.

It is important to note that this policy does not apply to municipal incinerators; their ashes must be tested for hazardous constituents if they accept anything other than household waste and the ashes may be classified as a hazardous waste requiring disposal in a hazardous waste management facility.

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[12] United States Environmental Protection Agency, RCRA Subtitle C Requirements Applicable to Household Hazardous Waste Collection Programs Collecting Conditionally Exempt Small Quantity Generator Waste, July, 1992.

Collection programs that collect only CESQG and household hazardous waste are exempt from certain federal hazardous waste permit and operational requirements. They are:

1) not regulated as Subtitle C hazardous waste treatment, storage or disposal facilities;
2) not restricted in the quantity of wastes that can be accumulated at the collection facility;
3) not subject to a time limit on storage of wastes at the collection facility;
4) able to collect both CESQG and household hazardous wastes in the same facility, mix wastes from both sources in the same drums, and transport both in the same vehicle.

There are, however, several risks inherent in the collection and storage of large amounts of hazardous wastes. Collection program operators must take measures to insure that the hazardous wastes are safely managed. Also, the operator of a collection program accepting any hazardous waste will be subject to clean-up liability under CERCLA should a problem occur.

As mentioned previously, there are over 4,000 CESQGs in Virginia who voluntarily notify the Department of Environmental Quality about their hazardous waste generation; there are at least that many more who do not notify the Department. Under current Virginia regulations, a CESQG has some options for the management of its hazardous waste. First, a CESQG can dispose of hazardous waste in a landfill when specific permission has been obtained in writing from the landfill operator. This permission is difficult, if not impossible, to obtain because a landfill operator who accepts hazardous waste is potentially liable under CERCLA for any environmental damage that may result. Also, a CESQG may contract with a hazardous waste disposal company or broker service to ensure safe treatment and disposal of its hazardous wastes. Lastly, a CESQG may self-transport its hazardous waste to a hazardous waste treatment, storage or disposal (TSD) facility and pay for proper treatment and disposal at that facility.

A. MANAGEMENT OF HAZARDOUS WASTE BY CONDITIONALLY EXEMPT SMALL QUANTITY GENERATORS IN VIRGINIA

As a part of this study, surveys were sent to approximately 10% of the CESQGs in Virginia who have voluntarily notified the Department of Environmental Quality of their status. Of these, 69 useful responses were received and 73 responses were received from recipients who are no longer considered to be a CESQG. The responses indicate that each CESQG generates 1,258 pounds of hazardous waste every year and spends an average of $1,350 per year, or $2,146 per ton, on management of these wastes. The cost to manage hazardous waste ranged from $200 to $4,500 per year with 24% spending more than $2,000 and 34% spending less than $1,000 per year.

It is interesting to note that CESQGs are paying approximately 42% less than HHW collection programs to dispose of their hazardous waste. This could in part be because of the consistency in type and volume of waste generated by CESQGs as compared to HHW collection programs and because many CESQGs sort and package their own hazardous wastes while collection programs usually hire hazardous waste contractors to sort and package the wastes.

When asked what type of information or support they would like to see from the state, respondents made the following suggestions:

(1) Information or assistance for CESQGs so they can consolidate disposal of hazardous waste with other generators in order to share transportation and disposal costs;

(2) Public awareness programs and increased, simplified information for generators on the identification and safe management of hazardous wastes;

(3) Convenient public collection stations for conditionally exempt hazardous waste.

VI. PROGRAMS IN OTHER STATES

Each year, an increasing number of states enact laws or implement programs for household hazardous waste management. By the end of 1991, 26 states had some form of household hazardous waste law or program.[13] In two years, that number increased to 34. These programs or laws range from grants for collection programs to mandates on local government to aggressive community education and information programs to state operated collection programs. States may also provide technical assistance, regulate household hazardous waste, require labeling of hazardous materials, or charge a hazardous products tax.

As a part of this study, a survey was made of the other states asking for information on how they deal with household hazardous waste. Of the 49 surveyed, 35 states responded that they have a program or law for the management of household hazardous waste, 2 states reported that they have recently discontinued such a program for financial reasons, 9 states responded that they have no programs or special laws, and 4 states did not respond.

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[13] Dana Duxbury & Associates, Overview of State HHW Laws, 1992.

The 37 states that reported having a household hazardous waste program offer the following types of programs:

(1) 18 states provide grants for collection programs;
(2) 9 states provide technical advice and community education materials or programs;
(3) 7 states require localities to provide some type of HHW collection service;
(4) 6 states either operate or fully fund collection programs (2 of these states recently discontinued their programs for financial reasons);
(5) 6 states regulate household hazardous waste as a hazardous waste or as a special type of hazardous waste;
(6) 3 states operate or have operated pilot projects; and
(7) 1 state requires labeling of hazardous materials and a special license and fee for retailers selling hazardous household products.

States fund these programs through a variety of sources, the most common being a solid waste tipping fee or a special tax on hazardous household materials. States also listed state general funds, state property taxes, dedicated funds from industry fees, and environmental protection bond funds as a funding source for their programs. A summary of each program is attached as Appendix F.

Because of the variety of program types and the differences in populations, it is difficult to compare or generalize about the cost of state operated household hazardous waste programs. The amount spent each year by states either operating collection programs or providing grants for local programs ranged from $300,000 to $7,000,000. Typically, grants for local programs were for $100,000 each and were used to fund from 40% to 100% of the cost to construct or operate the household hazardous waste collection program.

VII. CONCLUSIONS

The results of this study clearly indicate that private citizens, local governments, and business owners are concerned about the safe management of household and CESQG hazardous waste. What's not as clear is how the state can best meet their concerns in these times of tight fiscal constraints. The following recommendations are based upon the information gathered for this study:

(1) There are some overall benefits to the health of individuals and the environment which can be gained from the collection and proper disposal of household hazardous waste, but, at an average of $5,700 per ton, the cost of collection is high. As demonstrated by the survey of other states and the suggestions made by local governments, there are several ways in which the State can help citizens and local governments with the management of their

household hazardous waste. An extensive consumer awareness program targeted at both private citizens and local governments would be a very effective and relatively cost efficient approach to assist with the safe management of household hazardous waste. This could include information on the identification and safe management of hazardous materials, information on how to organize hazardous waste collection programs, and information about collection programs operating in Virginia. Any program for hazardous waste management should incorporate public education on the waste management hierarchy, application of which will reduce the total amount of hazardous waste in the waste stream and reduce the need for and cost of collection and disposal programs.

(2) Conditionally Exempt Small Quantity Generators appear to be managing their hazardous wastes responsibly and, at an average cost of $2,146 per ton, CESQGs are paying 42% less than collection programs to manage their hazardous wastes. Rather than establishing collection and disposal programs, the Commonwealth would better serve its CESQGs by focusing on programs that provide easily accessible, simplified information on the identification and safe management of hazardous wastes as well as on non-hazardous alternatives. These programs could also work with trade associations to provide information on how CESQGs can consolidate disposal of hazardous wastes with other generators in order to share transportation and disposal costs.

(3) The household hazardous waste collection and disposal programs operated by localities in the Commonwealth and in other states have been effective in collecting hazardous waste that would otherwise be either stored in households or disposed of with the municipal solid waste or through the waste-water treatment facility. These programs are clearly protecting human health and the environment but, as mentioned earlier, these programs are expensive. After considering that collection and disposal programs cost an average of $44,000 for a one-day collection program and $129,000 per year for a permanent, on-going collection program and that they service approximately 1.31% of the population, many communities have decided not to become involved with household hazardous waste collection. Those communities that have decided that the benefit from household hazardous waste collection is worth the cost have, however, made great strides in protecting the environment from these hazardous wastes and could use any assistance the Commonwealth is able to provide.

Appendix A

GENERAL ASSEMBLY OF VIRGINIA--1993 SESSION

HOUSE JOINT RESOLUTION NO. 515

Requesting the Departments of Waste Management and Emergency Services to study the need for a household hazardous waste collection and disposal program.

Agreed to by the House of Delegates, February 9, 1993
Agreed to by the Senate, February 16, 1993

WHEREAS, many waste materials from a household, including agricultural chemicals, cleaning agents and solvents, paints, and pesticides, would be listed as hazardous waste under the Resource Conservation and Recovery Act (42 U.S.C. § 6901 et seq.) but for the fact that the waste is derived from a household; and

WHEREAS, residents of the Commonwealth have limited opportunities to properly manage and dispose of household hazardous waste; and

WHEREAS, the disposal of household hazardous waste in solid waste disposal sites and sewage facilities presents a potential hazard to the public health and the environment because these sites and facilities may not be designed for the disposal of hazardous wastes; and

WHEREAS, several localities in the Commonwealth, including Chesterfield County, Fairfax County, and the Southeast Public Service Authority in Tidewater, have enacted programs for the collection and disposal of household hazardous waste; and

WHEREAS, California, Florida, Illinois, Indiana, Iowa, Kentucky, Maine, Maryland, Minnesota, Mississippi, New Mexico, Oregon, Pennsylvania, Tennessee, Texas and Wisconsin have enacted legislation promoting or requiring programs for the management of household hazardous waste; now, therefore, be it

RESOLVED by the House of Delegates, the Senate concurring, That the Departments of Waste Management and Emergency Services be requested to study the need for a household hazardous waste collection and disposal program. The study shall address: (i) the potential benefits and costs of requiring or creating incentives for the establishment of local household hazardous waste collection and disposal programs; (ii) the need for programs for the collection and disposal of hazardous waste generated by exempt small quantity generators; and (iii) the effectiveness of programs enacted by localities in the Commonwealth and other states.

The Departments shall complete their work in time to submit their findings to the Governor and the 1994 Session of the General Assembly as provided in the procedures of the Division of Legislative Automated Systems for the processing of legislative documents.

Appendix B

CITIZENS ADVISORY COMMITTEE

Mr. Charlie Bias
Chemical Waste Management
Sealston, Virginia

Ms. Carol Corker
Southside Planning District Commission
South Hill, Virginia

Ms. Lynda G. Furr
Assistant Emergency Services Coordinator
Chesterfield, Virginia

Mr. Elliott Gross
Division of Solid Waste Disposal and Resource Recovery
Fairfax, Virginia

Chief Danny W. Hall
Salem Fire Department
Salem, Virginia

Ms. Sara Hollberg
Central Shenandoah Planning District Commission
Staunton, Virginia

Ms. Jennifer Ladd
Southeastern Public Service Authority
Chesapeake, Virginia

Ms. Judith Mueller
Director of Public Utilities
Charlottesville, Virginia

Mr. Tom Perlic
Sierra Club
Norfolk, Virginia

Mr. Howard Rogers
Virginia Retail Merchants Association
Strafford Hills Dry Cleaning
Richmond, Virginia

Ms. Yvonne Spain
Richmond, Virginia

Appendix C

HAZARDOUS CONTENTS OF COMMON HOUSEHOLD PRODUCTS

Household Cleaners

Air Freshener (Caustic or Ignitable)
- Alkyl Phenoxy Polyethoxy Ethanol
- Isobutane
- Propane

Cleaners (Caustic or Ignitable)
- Ammonia
- Ammonium Hydroxide
- Chlorinated Phenols
- Diethylene Glycol
- Ethoxylated Alcohol
- Hydrochloric Acid
- Lye
- Phenols
- Sodium Hypochlorite
- Sodium Acid Sulfate
- Surfactants
- Zylenols

Drain Opener (Caustic)
- Hydrochloric Acid
- Potassium Hydroxide
- Sodium Hydroxide

Detergents (Caustic or Ignitable)
- Ethylene Glycol
- Methanol Chloride
- Perchloroethane
- Sodium Hypochlorite
- Surfactants
- Tetrachloroethylene

Polish (Ignitable)
- Denatured Ethanol
- Isopropanol
- Petroleum Distillates
- Petroleum Naphtha
- Turpentine
- Isopropyl Alcohol

Household Maintenance

Glue (Ignitable)
- Acetone
- Asbestos Fiber
- Butyl Acetate
- Ethylene Dichloride
- Formaldehyde
- Hexane
- Methylene Chloride
- Methyl Ethyl Ketone
- Mustard Oil
- Petroleum Distillates
- Toluene

Varnish/Sealant (Ignitable)
- Benzene
- Lead
- Methyl and ethyl alcohol
- Methylene Chloride
- Mineral Spirits
- Pentachlorophenols
- Petroleum

Paint Thinner and Stripper (Ignitable)
- Acetone
- Alcohols
- Chlorinated Aliphatic Hydrocarbons
- Chlorinated Aromatic Hydrocarbons
- Ethers
- Ketones
- Petroleum Distillates
- Toluene

Automotive Maintenance

Engine Treatment (Ignitable)
- Methylene Chloride
- Mineral Spirits
- Petroleum Distillates
- Toluene
- Trichloroethylene
- Xylenes

Oil and Transmission Fluid (Ignitable)
- Ethyl Ether
- Lead
- Petroleum Distillates

Batteries (Toxic)
- Lead
- Sulfuric Acid

Lubricating Fluids (Ignitable or Toxic)
- Petroleum Distillates
- Lead

Grease and Rust Solvents (Corrosive)
- Phosphoric Acid
- Potassium Hydroxide
- Caustic Potash

Yard Maintenance

Herbicides (Toxic)
- Chlorinated Phenoxys
- Dipyridyl
- Nitrophenols

Pesticides (Toxic)
- Aromatic Petroleum Hydrocarbons
- Carbamates
- Chlorinated Hydrocarbons
- Coumarin
- Naphthalene
- Organophosphorus
- Petroleum Distillates
- Triazine Base
- Uracil
- Urea
- Zylene

Miscellaneous

Pool Chemicals (Reactive)
- Sodium Dichloro-S-Triazinetrione

Fingernail Polish Remover (Ignitable)
- Acetone

Appendix D

COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Household Hazardous Waste Collection - Interim Recommendations

Current management requirements for household hazardous waste are best addressed by a general discussion of household hazardous waste issues in the context of current regulations administered by the Department of Environmental Quality and its interim policy for management of permanent household hazardous waste collection facilities.

The Department of Environmental Quality, Waste Division (DEQWD), which administers regulations for the management of hazardous and solid waste in Virginia, is available to assist citizens and local governments with concerns and questions regarding disposal of household hazardous waste. In contrast to hazardous waste produced by businesses and government, household waste which may be toxic are not subject to regulation under the Virginia Hazardous Waste Management Regulations (VHWMR). The VHWMR state the following regarding household hazardous waste:

Section 3.1.B.1 - " The following solid wastes are not hazardous wastes: ... Household waste, including household waste that has been collected, transported, stored, treated, disposed, recovered (e.g., refuse-derived fuel), or reused.

Section 1 - Definitions - " Household waste means any waste material (including garbage, trash, and sanitary wastes in septic tanks) derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds and day-use recreation areas)."

Accordingly, jurisdiction for household derived chemical waste passes from regulation as hazardous waste to regulation as solid waste. The DEQWD is currently reviewing our solid and hazardous waste regulations to establish operation standards for household chemical waste collection events and permanent facilities. The DEQWD is also reviewing standards adopted by other states for similar programs. We expect to establish an official policy document in the near future. However, as an interim measure, the DEQWD is making the following recommendations based on current regulations and previous practices. We are also soliciting comments from localities participating in these programs under the interim measures to assist in refining future policy decisions.

In accordance with the recommendations of the Department's solid waste management section and the requirements of the Virginia Solid Waste Management Regulations, the following information is provided regarding regulatory requirements for interim household hazardous waste storage facility (HHWSF). Based on the VSWMR, these requirements apply to a HHWSF used for storage of household hazardous waste excluded and defined in the VHWMR:

A. If a HHWSF is used **solely** by private homeowners (i.e. not by collection vehicles or haulers) for collection of exempted wastes, the facility is conditionally exempt from the Virginia Solid Waste Management Regulations (VSWMR) provided no open dump, hazard, or public nuisance is created, and proper containers for storage are used and the household hazardous waste is on a system of regular scheduled collection at intervals of less than ninety days per VSWMR §2.4.D.4. Proper procedures for managing the household hazardous waste (i.e., separation of incompatibles, handling by appropriately trained personnel, etc...) should be maintained in order to minimize possible nuisances or hazards that could occur from mismanagement of this waste.

B. If the HHWSF is located at a permitted solid waste facility and is used by any collection vehicles or haulers, or does not meet the conditions of VSWMR §2.4.D, the solid waste permit for the existing facility must be amended to include the HHWSF. This amendment shall incorporate the applicable transfer station requirements (VSWMR §6.2). Additionally, we strongly recommend that the following items be addressed:

    1. Incompatible wastes, or wastes and other incompatible materials, should not be placed in the same container.

    2. Wastes should not be placed in an un-rinsed container that previously held an incompatible waste or other incompatible material.

    3. Storage containers holding a waste that is incompatible with any other wastes or other materials stored nearby should be separated or protected by means of a dike, berm, wall, or other suitable structure.

C. If the HHWSF is not located at a permitted solid waste facility and is either used by any collection vehicles or haulers or does not meet the conditions of VSWMR §2.4.D, the HHWSF is required to have a permit for a solid waste transfer station in accordance with the VSWMR. The facility shall meet the requirements for a transfer station under VSWMR §6.2, and should address items B.1 through B.3 listed above.

Several additional considerations under RCRA (hazardous waste) jurisdiction also apply. In all cases to date, collected

household chemical waste has been shipped off-site to a treatment, storage, or disposal facility (TSD) regulated under the Resource Recovery and Conservation Act (RCRA). The Department encourages and supports management of household chemical waste in this manner. Because the transporters and TSD facility are subject to RCRA permit requirements, they usually require the waste to be shipped under a Uniform Hazardous Waste Manifest, which requires an EPA identification number identifying the waste generator. For one time collection events, the Department can issue a provisional EPA ID number which is good for a single shipment. For a permanent facility, the Department will issue a permanent EPA Identification number for the generator (collection) site identifying the site as a Conditionally Exempt Small Quantity Generator (0 to 100 kilograms of hazardous waste generated per month). This assumes that the site does not already have a permanent EPA ID number or is not otherwise regulated as a generator of hazardous waste; if the site has a permanent identification number, that number should be used. We also recommend that the manifest include a statement to the effect that the waste is derived solely from households and is excluded from regulation as a hazardous waste under State and Federal regulations and that the manifest is used for tracking purposes only. Otherwise, there is an assumption that the generator is declaring this waste as hazardous waste subject to regulation and consequently would be subject to all applicable generator responsibilities.

These interim guidelines were developed to assist groups in planning household hazardous waste collection programs while DEQWD staff developes operation standards for household chemical waste collection events and permanent facilities. DEQWD staff are available to answer any questions that may arise during this process.

James C. Adams, Director
Waste Division

Appendix E

HOUSEHOLD HAZARDOUS WASTE COLLECTION PROGRAMS IN VIRGINIA

Albemarle County (Rivanna Solid Waste Authority - RSWA)

Albemarle County and Charlottesville City are serviced by the RSWA which conducted a one-day collection program. RSWA is currently looking into permanent facilities. The program cost $41,052 annually to operate, serving approximately 1% of the housing units in that area. An average of 16,409 pounds of waste was collected. Funding for the program is collected through a landfill tipping fee.

Alexandria City

Alexandria has a permanent collection facility that cost $2,000 to construct. The program costs $90,000 annually to operate and collects 50,000 pounds of waste per year. The program is funded through the local government general funds. An estimated 1,000 households, which make up 1% of the total number of households served, participate in the program annually.

Arlington County

Arlington County has a permanent collection facility that cost $41,000 to construct with an annual operating cost of $52,000. It serves 27% of the households in the County with 90,000 households participating. During fiscal year 1992, 1630 pounds and 420 gallons of waste was collected. General local government funds provided $60,000 to operate the program.

Chesterfield County

Chesterfield County's permanent facility has only been operating since June 16, 1993; therefore, the figures given are estimates. The facility cost $5,000 to construct and will serve 600 households (1%) annually. The annual cost of operations is expected to be between $30,000 - $40,000. Funding for the facility will come from general local government funds.

Fairfax County

Fairfax County has two permanent collection facilities. The total construction cost was $261,000. The facility consists of two concrete pads with 20'x 20' tents ($100,000); two hazardous material storage buildings ($70,000); two roll-off storage containers ($11,000); and two office trailers ($80,000). The facility has an annual budget of $400,000, which comes entirely from landfill tipping fees ($0.75/ton). Each year 104,000 pounds of waste are collected from 5219 participating households (2% of total housing units).

Henry County

Henry County offers a one-day collection program in which 100 households, or 5% of the total housing units, participate. They collect 13,515 lbs. of waste annually. Funding in the amount of $25,500 each year comes from the general local government funds. An estimated $3,420 in volunteer time and equipment is received annually.

Loudoun County

The Loudoun County permanent facility cost $17,921 to build. Three hundred and thirty-five households (335) participate in the program, making up 1% of the total housing units. The facility collects an estimated 14,310 pounds of waste annually and cost $58,224.54 annually to operate. Funding comes from a combination of the general local government funds and a special grant from the EPA Region III Solid Waste Management Assistance Program Grant fund (No. X1-003647-07).

Prince William County

Prince William County operates a permanent collection facility which cost $10,000 to construct. It cost $25,000 to operate the facility annually and serves an average of 49 households (1%). Funding of $30,000 per year for the facility is provided by a landfill tipping fee. The amount of waste collected on average is 1839 pounds per month.

Roanoke Valley (The Clean Valley Authority)

The Clean Valley Authority, which serves Roanoke City, Roanoke County, Vinton, Salem, and Botetourt County plans to hold a one-day HHW collection program in the spring of 1994. The region's resource authority has budgeted $150,000 from their general funds for this event. In 1992, a local civic group sponsored a collection program.

Southeastern Public Service Authority (SPSA)

SPSA operates six permanent collection facilities. During fiscal year 1992-93, 8,125 pounds and 6,715 gallons of waste were collected and an additional 3,192 cans of paint were recycled. This was delivered by a total of 2,267 participants. SPSA utilizes prefabricated facilities and the most recent facility purchased cost $27,000. The annual cost to operate the facilities is $235,000 which comes from landfill tipping fees.

Appendix F

STATE HOUSEHOLD HAZARDOUS WASTE PROGRAMS

ALASKA

Until program funding was removed in 1993, Alaska provided hazardous waste collection four times a year and collected waste from households and from Conditionally Exempt Small Quantity Generators. Alaska has spent between $50,000 and $150,000 per year from the state general funds since 1983. This money was used to pay a portion of the costs incurred by localities in operating the collection programs.

ARIZONA

Arizona funds a portion of its local HHW collection programs through a recycling grants program. A permanent facility is being considered that would also collect waste from CESQGs. Alaska's Department of Environmental Quality also provides technical assistance.

ARKANSAS

Arkansas offers technical advice to communities and other groups that plan to collect and dispose of household hazardous waste.

CALIFORNIA

California regulates HHW as a special category of hazardous waste. The state was legislatively mandated to establish public education and technical assistance programs as well as county-based HHW collection plans and grants to assist with the collection programs. The state also sponsors quarterly HHW information exchange meetings. The budget for this program is $7,000,000.

DELAWARE

The Delaware Solid Waste Authority has been directed to establish a program that will separate harmful materials from the solid waste stream. Delaware recently completed two pilot HHW collection programs which cost the state $546,220. The funding came from a solid waste disposal surcharge of $2.00 per ton.

FLORIDA

Florida offers $100,000 grants to local governments to establish permanent collection centers. It also provides smaller grants to counties with collection centers that plan to offer collection services to surrounding counties. The state has awarded $1,000.000 each year since 1988 through this program.

GEORGIA

Georgia offers technical assistance to groups organizing HHW collection programs. Georgia also work with local industry to sponsor recycling days twice a year at which paint, oil, batteries, and tires are collected from the public.

HAWAII

Until this year, Hawaii operated a collection program that was funded by state general funds. The yearly budget for this program was $350,000.

ILLINOIS

Illinois provides full funding for HHW collection and disposal events using monies from the solid Waste Management Fund. In 1992, 23 one-day collection programs were conducted at an average cost of $100,750.

INDIANA

Indiana plans to implement a HHW grant program in 1994 which will focus on public education.

IOWA

Iowa conducted 19 Toxic Clean-Up Days in 1992 at a cost of $451,400. The state has recently mandated that regional HHW centers be developed. Iowa also requires that hazardous household products be labelled as such and that any retailer selling these materials carry a special permit.

KANSAS

Kansas provides grants for up to 50% of the cost of a HHW program. A dedicated fee fund from water pollution sources provides $150,000 a year for this program.

MARYLAND

Maryland offers technical assistance to groups planning HHW collection programs. It also publishes a recycling directory each year which includes information on HHW collection programs being operated in the state as well as the materials that each center will accept.

MASSACHUSETTS

Massachusetts provides technical assistance to groups planning HHW collection programs. A study was done in 1991 which developed several strategies for HHW management in the state which are in the process of being implemented.

MICHIGAN

Michigan provides grants to localities who wish to establish permanent HHW collection facilities. Environmental Protection Bonds fund this program which has spent $1.6 million to date on 19 programs.

MINNESOTA

In Minnesota, counties were required to implement a HHW program by 1992; this has evolved into several regional HHW programs with public education as a major focus for many programs. The state covers 40% of the operation costs and has spent $950,000 for the seven regional facilities.

MISSISSIPPI

Mississippi adopted a "Right Way to Throw Away" statute which placed restrictions on the disposal of specific types of household wastes. The state also provides grants for localities to run HHW programs which are funded through a state solid waste disposal tipping fee.

MISSOURI

Missouri provides grants from its Solid Waste Management Fund for localities who operate HHW collection programs.

MONTANA

Montana has a statutory mandate to provide HHW education programs. The annual budget included $10,000 for this program in 1992.

NEBRASKA

Nebraska's Solid Waste Management Act states that on September 1, 1996, all HHW will be banned from solid waste landfills.

NEVADA

In Nevada, all counties with populations in excess of 25,000 are required to establish HHW collection programs. The state also provides grants for these programs which are funded through a surcharge on new tires.

NEW HAMPSHIRE

New Hampshire offers matching grants to localities for HHW collection programs. These grants are funded through the Hazardous Waste Cleanup Fund which collects money from Hazardous Waste Generators at the rate of three cents per pound of non-recycled hazardous waste.

NEW JERSEY

New Jersey offers grants for the operation of HHW collection programs.

NEW YORK

New York regulates household hazardous waste as a special type of hazardous waste. The state also provides technical advice and educational materials.

NORTH CAROLINA

North Carolina has recently been authorized to collect an advance disposal tax on household hazardous products sold in the state. Each county is also required to provide for the collection and disposal of HHW as of January 1994.

OHIO

Counties in Ohio are required to prepare solid waste management plans which include a strategy for the management of HHW.

OREGON

Oregon is sponsoring 3-year pilot programs for the collection of HHW. The state will eventually establish permanent facilities for the collection and storage of HHW.

PENNSYLVANIA

Pennsylvania's Municipal Waste Planning, Recycling and Waste Reduction Act encourages HHW collection programs and requires program sponsors to gain program approval from the Department of Environmental Resources. The state also provides matching grants, funded through a special appropriation by the General Assembly, to localities that offer HHW collection programs.

RHODE ISLAND

Rhode Island operates a HHW collection program and plans to construct a permanent collection facility. This has cost approximately $315,000 each year and is funded through a tax on "hard-to-dispose" products.

SOUTH CAROLINA

South Carolina has an extensive public education program and provides technical assistance as needed.

SOUTH DAKOTA

South Dakota conducted a pilot collection program for HHW; the program had to shut down after two hours due to the response. $100,000 was budgeted for the project.

TENNESSEE

Tennessee is required to provide mobile collection units to collect HHW on designated days in each county. This is funded through a surcharge on solid waste disposal and a pre-disposal fee on tires.

TEXAS

Texas regulates collected HHW as a hazardous waste. The state provides grants for municipal solid waste tipping fees for collection programs. For 1992, the cost of the grant program was $490,000.

VIRGINIA

Virginia has developed a guidance document to assist groups who are planning a HHW collection program and provides technical assistance to HHW collection programs and to CESQGs. The state also conducts pesticide "clean days" to assist farmers with the disposal of their unwanted pesticides.

VERMONT

Vermont requires that HHW be considered in local solid waste management plans. The state also provides grants for collection programs.

WASHINGTON

Local governments in Washington are required to provide HHW collection programs. The state also provides matching grants for the operation of these facilities.

WEST VIRGINIA

West Virginia provides technical assistance for HHW collection programs.

WISCONSIN

Wisconsin provides grants for HHW programs. The grant monies come from a pesticide manufacturer and labeler supplemental product fee.

(ERRATA SHEET FOR APPENDIX E)

REPORT OF THE
DEPARTMENT OF ENVIRONMENTAL QUALITY

The Collection and Disposal of Household and Conditionally Exempt Hazardous Waste in Virginia

TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA

HOUSE DOCUMENT NO. 8

COMMONWEALTH OF VIRGINIA
RICHMOND
1994

Appendix E

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