

06/17/96

### **State Technical Assistance for HHW**

- I. Introduction, The Wyoming Experience- How Wyoming Collection Days Uniquely Addressed Each One of the Steps For Organizing A Collection Day
  - A. History of HHW Days in Wyoming (slides)
    - 1. (Slide) Casper collection day, EPA Grant money/Wyoming League of Women Voters seminars

In January of 1985, the Wyoming State Department of Environmental Quality received a grant from the EPA Region 8 office, Denver, Colorado, to fund an innovative hazardous waste management project. The project would be accomplished by working with the Wyoming League of Women Voters to sponsor nine public meetings to educate people about the awareness of household hazardous waste and the project would culminate in a household hazardous waste collection day in Casper. On Saturday, June 29, 1985, the first Wyoming HHW Collection Day was held. The first Wyoming collection day was very successful with 52 drums of hazardous waste being collected.

(slide)On August 26, 1989, KN Energy Inc. Held the second HHW day in Casper. This collection day was held as a result of a Consent Agreement signed between DEQ and KN Energy that penalty monies resulting from the unauthorized burial of solid waste would be used to pay for a household hazardous waste collection day. 56 barrels of household hazardous waste were collected with 277 households participating. About a year later, the City of Cody/Park County also held a collection day resulting from solid waste penalty monies. Approximately two years later, a third collection day was held in Casper. This time Northern Gas and KN Energy sponsored the event after realizing the success from their first collection day and the benefits that could be gained from the collection day by the community, themselves, and the environment.

During the following years, several communities came to the department requesting technical assistance to start collection days in Laramie, Cheyenne and Campbell County. The department used much of the information gained from the Casper collection days and from nationwide guidance materials to provide guidance to these communities. Many of the suggestions and recommendations I will be providing to you today resulted as more collection days were held across the state.

- B. #Of collection days, amounts of wastes collected, etc. (Refer to handout)

As of this date, 24 HHW days have been held in Wyoming with a total of 102,000 gallons of HHW not going into our local sewers or landfills. The community leading the pack with the most collection days is Casper who have held a total of 7 collection days.

- C. (Slide) Your main job should you decide to accept this impossible mission, is to convince people that HHW is a problem. The best way to do this is to assemble some local and nationwide "horror stories" and newspaper articles that depict the environmental consequences resulting from the improper management of HHW. This would be a good topic for future collection day seminars.

II. Types of Technical Assistance Provided in Wyoming (How We Tell People To Organize A HHW Day in Wyoming) Step-By-Step Procedures Follow EPA Manual For One-Day Events

My talk today about how a state employee has given technical assistance to local Wyoming communities on how to do HHW days, I decided to follow the EPA step-by-step guidance manual since I think it is important to stress in this seminar how you organize and do HHW collection days.

- A. (Overhead #1) Okay, our first question is, How Do We Get Started?

To properly organize a household hazardous waste collection day, you will need to organize a committee consisting of representatives from community service groups/organizations, city/county government, local business entities, educational institutions, and media and publicity experts. This core committee group will need to form the following sub-committees with specified collection day tasks:

Funding & Contract- Plans budget for collection day, checks on liability and insurance coverage, asks for donations, develops agreement with waste disposal contractor, and purchases materials/supplies not provided by contractor. Good people for this committee are members of your local business organizations, bankers, and the basic "go get-him" type.

(Overhead #2) Volunteer Personnel - Solicits volunteer help by contacting local civic groups/organizations and by publicity methods, contacts workers by letter concerning training for collection day, plans work schedules, assures adequate work force numbers for collection day, assigns worker duties. Very important position since as we found out in Cheyenne one year, volunteers are the critical component in determining how successful your event will be.

(Overhead #3) Technical & Emergency Services - Creates site plan map, provides traffic control and flow plans, plans for emergency rescue/response, site personnel safety and training, coordinates all waste locations/activities and site set-up/take down. Good people for this position are your landfill site manager, public works director, industry related safety officer, etc. *Emergency management (Civil Defense) uses HHW for required training exercises. The military reserve might also help with big equipment. Salvation Army and Red Cross donate time if you donate money.*

(Overhead #4) Publicity/Public Education - Prepares radio/television information and articles for newspapers/magazines, prepares outlines/presentations for the public, prepares brochures/leaflets for distribution, prepares posters to solicit volunteer help and to advertize collection day, and prepares signs/newspaper ads to thank businesses who donated. Some good examples for this position are local teachers, TV/radio announcers (*main committee member of Laramie collection day was City's leading radio announcer*).

B. (Overhead #5) Selecting Wastes and Collection Methods

1. What Wastes Are We Going To Collect?

The committee needs to decide which waste types will be collected and which types will be recycled/disposed. It is recommended that all waste disposal/recycling facilities be checked for liability purposes (i.e., where do the lead-acid batteries go after the recycler picks them up? Is the facility an EPA approved facility?). A determination of the waste types to be collected depends on what specific problem wastes are in each specific community and how much money you have.

If pesticides are collected, collection day costs can range as high as \$100,000.

2. (Overhead #6) Examples of Waste Types To Be Collected

Wastes Accepted

Used Oil

Lead Acid Batteries

Alkaline Batteries

Waste Antifreeze

Latex and Oil Base Paint

Solvents

Pesticides

Chemical Cleaners

(overhead #7) Wastes Not Accepted

*It is recommended that the following waste types not be accepted due to some of the hazards posed and the difficulty in properly disposing of them.*

Radioactive Wastes - smoke detectors accepted by some manufacturers

Biological or Medical Wastes

Explosive, Shock Sensitive or Ordinance Materials- can be detonated by a local bomb squad expert

Commercial or Business Wastes

Compressed Gas Cylinders

(overhead #8) Wastes That Can Be Recycled

(slides) Many HHW wastes can be recycled. Recycling HHW saves money and it is a reuse of a spent material. Wyoming has had a lot of success with recycling latex Paint. I would now like to talk a little bit about how certain HHW wastes are recycled in Wyoming. Rock Springs and Casper built their own paint can crusher machines and don't have to bulk or re-containerize a single can of paint since the machine does all of the work for them. These are hydraulic type of machines which can crush up to 20-30 cans of paint at one time with the paint being collected in 55 gallon drums for recycling and reuse. *Again, these communities designed and built these machines, themselves.*

*Cheyenne has had good success with recycling latex paint back into the community (refer to the handout I gave you which describes the procedures they use). The program consists primarily of surveying various community and civic organizations for their interest and if there is enough interest, the waste paint is strained and then repackaged in 5 gallons containers for re-use according to a certain color scheme. This year we recycled 600 gallons back into the community. Discuss Cheyenne paint removal procedures and how using drills has created less headaches and has been more efficient with paint removal. Gillette has had success with recycling HHW by placing all materials on a table and then having residents come by and pick up the materials they want to reuse.*

Antifreeze - portable recycling devices

Lead Acid Batteries - *Wyoming law requires businesses to take back one lead acid battery for every battery that a customer brings in. Usually, lead acid battery recycling is a source of income for your HHW program.*

(overhead #9) *At several collection days in Wyoming, signs are posted at the entrance listing wastes that are and are not accepted. This is also done in newspaper ads as part of the pre-collection day publicity.*

C. How Do You Fund Your Program and Control The Costs (overhead #10)

1. How to Obtain Funding (mention Laramie example)

The main sources for funding in Wyoming have been from local government entities such as county and city governments. Significant amounts of funding have also been obtained from public utility boards, conservation districts (*the Converse County collection day was funded in total this year by a grant from the local Conservation District*), power plants, refineries, private laboratories, coal mines, and gas companies. (overhead, 2nd one)

(Overhead #11) *Laramie collected their funding from several businesses (list all the types and amounts raised). Small amounts of money donated from several different businesses add up to an amount that is enough depending on the specific waste types you collect.*

2. Contributions and In Kind Donations (overhead #12, UP RR overhead)

Donations of money, materials, and labor are the main driving forces behind all of the community HHW programs in Wyoming.

Some Ways That Money Has Been Raised in Wyoming Include:

- 1) Collecting donations/contributions at the entrance gate. Cheyenne raised \$1100 at the entrance gate this year from free donations. The basic procedure was to have a large and very legible sign stating "Donations Accepted" and then asking people as they returned their survey forms whether they wanted to donate for next year's event.
- 2) *To encourage other businesses to donate money, Laramie published a photo in their local newspaper of a local business posing with the cash donation check they had given*

In kind donations can include safety equipment and food. (Overhead #13 of pie)

- 1) *I bet you're wondering what this overhead is doing here besides making you hungry? This is an overhead of a large slice of delicious pie that was served at the Campbell County HHW day. Campbell County HHW days are noted for the large selection of pies that are donated for the volunteers.*
  - 2) *Betz Labs donated some large carboy containers for used oil collection at the Cheyenne collection day*
  - 3) *Frontier Oil in Cheyenne donated ChlorD Tect kits to test the used oil for halogen content before it was recycled,*
3. *Ultimately the best way to raise money for collection days is by charging a fixed amount of money as part of the landfill usage fee. We have not charged any fees at any of the collection days in Wyoming since we feel this would affect the participation rate. Environmental fines can also be earmarked' for HHW. Chemical and mining operations are also sensitive to environmental causes and might donate largely to get "green recognition".*
4. How Do You Estimate Costs For Collection Days? You can calculate this either two ways.
- a. *You can use the Wyoming data summary results I provided to get a rough estimate or you can take the population of the community and divide by 3 to get the number of dwellings, i.e.,  $50,000/3=17,000$  homes or potential cars*
  - b. *From this calculate the following response rates:*
    - First year 3% response = 510 cars*
    - Second year 4% response = 680 cars*
    - Next years 5% response = 850 cars*
    - Huge response 7% = 1,190 cars*
  - c. *If taking all wastes, calculate \$35/car*  
*If taking batteries, oil and paint, calculate \$25/car*  
*If taking batteries and oil, calculate \$5/car*
  - d. *Therefore, a population of 50,000 with a 5% response taking everything is  $850 \text{ cars} \times \$35/\text{car}=\$30,000$  at Cheyenne HHW*
5. (Overhead #16)Ways to Minimize Costs (Read all bullet items)

There are several other techniques that have been used in Wyoming to minimize collection day costs. Some of these are:

- a. (Overhead #17) Selecting a contractor by using the bidding process-This overhead is a graphic depiction of what cost bidding can do for you
- b. Consolidating wastes such as bulking latex paint and not lab packing some wastes
- c. Hiring less contractor staff i.e., *in Cheyenne we use the chemist from Coastal Chem Inc. and other industrial workers knowledgeable in chemical identification. Also, use your local and county emergency response people to do the required safety training of volunteers.*
- d. *Using more volunteer help for bulking/containerizing the waste. Cheyenne pays their City workers overtime to assure there are enough volunteers. Some of the Wyoming communities have used local civic group annual projects (i.e., Lions, Jaycees, etc.) for a large commitment of volunteers.*
- e. *Reuse of some of the more costly waste items, i.e., pesticide reuse by the local weed/pest personnel (Gillette collection days)*

D. How Do You Select A Contractor? (RFP overhead #17)

A Request for Proposal (RFP) should be used to obtain information on which contractors are available and qualified to manage a HHW program and the amount they will charge. This process ensures that the community sponsoring the collection day is provided with all the necessary services at a reasonable cost and that the roles of everyone involved in the collection event are clearly defined.

*I have some copies of the most recent Cheyenne HHW RFP if you would like a copy. Some of the more important and significant items in an RFP are found on page 32 of the EPA guidance manual.*

*As I mentioned earlier, by using an effective RFP, communities can save a lot of money.*

E. How Do I Minimize My Liability? (Volunteer app form overhead)

Communities who sponsor collection day events can be liable for injuries to collection day workers, releases of HHW to the environment at the site, or an accident during the transportation of HHW from the collection site to the disposal site. *Up to now, there have only been a few instances of site injuries in Wyoming and we have been successful because of all the precautions that have been taken. The only injuries we have had up to now are one person who suffered from dehydration in Gillette, someone got hit by an oil boom in Casper, and a person cut his hand with a screwdriver while opening a paint can in Cheyenne. All of these incidents were properly addressed by the HHW committees and there were no legal ramifications.*

Wyoming communities have done the following to help minimize this potential liability.

1. Keep Good Training Records

*Keeping a record of how you trained site volunteers and if you did a comprehensive job of this greatly reduces any potential for an opposing attorney to demonstrate negligence should an injury to a volunteer occur.*

2. Provide the Necessary Accident Prevention Items Onsite

Dehydration is the biggest factor for worker injury during Wyoming HHW days. Collection Day organizers need to make sure there are enough fluids available to drink and easily accessible for all working areas. A suggestion is to use paper cups with lids and straws and have personnel hand these out to the workers to prevent cross-contamination. Also, there need to be adequate first aid kits and eye wash stations available. Performing these tasks shows that you are not being negligent.

2. Obtain necessary insurance

Wyoming communities have used several types of insurance to cover general, employee, transportation and environmental liability. I would now like to discuss each one of these types.

- a. Insurance Types

- I. General - *Usually covered by the contractor for damage to property or for bodily harm at the site caused by actions of the contractor's staff. It does not cover property damage or bodily harm caused by the sponsor's staff or volunteers.*

II. Employee - Sponsor should obtain coverage for any staff or volunteers working at the collection day who are not provided by the contractor. *In Wyoming, several communities have used Workman's Compensation to provide coverage for one day at about \$4/person if each volunteer's social security number is provided. Some communities have also purchased a one-day insurance policy for those locations where adequate coverage does not exist. Proper selection of the location in some cases, can preclude you from having to obtain insurance. For example, in Casper and Gillette, since the collection day events occur at the City solid waste management facilities, special insurance is not required since these facilities are already insured for any accidents caused by the usage of the solid waste management facility.*

III. Transportation

*Contractor should have insurance to cover all drivers and vehicles transporting collected waste.*

IV. Environmental Liability

The sponsor should ask to see a copy of the HW TSD's environmental impairment liability insurance. These facilities need this insurance to cover liability under RCRA. This insurance is not available to HHW collection programs. *The site contractor provides this insurance in Wyoming.*

F. How Do You Select, Design, and Operate the Collection Site? (overhead)

1. Site Selection - Sites should meet the following criteria: well known, centrally located, and easily accessible. Should also be well removed from residences, parks where children play, and environmentally sensitive areas, such as open bodies of water, wells, faults, and wetlands. Using sites with an impermeable surface helps to minimize environmental risks. Plastic sheeting has been used at some collection day sites if there is no impermeable surface. Sites are typically located on publicly owned land, such as stadium parking lots, solid waste landfills or transfer stations, schools, fire stations, and public works yards. Wastewater treatment plants are good sites since they offer educational opportunities. Should allow participants to move through area quickly and efficiently, should include adequate space for waiting lines, and should be at least 10,000 square feet.

(Overhead) All sites should have the following components:

- a. Entrance
- b. Receiving Area
- c. Sorting Area
- d. Waste management areas and reasons for locations
- e. Break Area
- f. Parking Area

*(slides) Now, I would like to give you some examples of Wyoming collection site locations. The Converse County Conservation District used the Douglas State Fairground buildings for unloading wastes. This was a well known location and easy to access. Wastes were also collected at the Glenrock City Park and then hauled to Douglas on a flat bed trailer lined with plastic for sorting and packaging at the State fairgrounds.*

*Laramie used the County fairgrounds for their collection day with all waste collection areas centrally located and lots of space for cars to turn around. Laramie requires unloading of batteries and used oil first to make traffic flow easier and more convenient.*

*Campbell County uses their solid waste baling facility since this facility is already designed for the delivery and processing of municipal solid waste.*

*Rock Springs uses their satellite Rec Center to provide little "islands" where specific wastes are delivered. There is a separate turnaround for each specific waste type. This helps to prevent the clogging of traffic and traffic buildup.*

*Cheyenne had a problem with traffic this year with traffic lines extending all the way to the highway and blocking the interstate. To prevent this from happening again in the future, it is recommended that something like the odd/even house number, license plate numbers, quadrant of town, etc. be used to help stagger the traffic.*

## 2. What Types of Equipment Will I Need?

*Refer them to a copy of the Cheyenne list included with their handout materials.*

- G. How Do You Train the Collection Day Staff? (Laramie Training Plan overhead) I have extra copies of an example of a site safety training plan if you're interested.

The collection day sponsor should explain to volunteers what they may

and may not do on collection day; procedures for receiving participants, controlling traffic, and handling waste; and what their roles would be in the event of an accident or spill. Before the collection day, the sponsor should hold an orientation session for all volunteers and in-house staff who will be working at the collection site. The session should inform the volunteers about the operating procedures and emergency plan.

*Safety training in Wyoming has been done by local emergency management leaders, the University of Wyoming Safety Office, and by safety/industrial hygiene officers from various companies for fit training of self-contained breathing apparatus. Training of collection day staff is done by using slides of previous collection days or videos to explain collection day tasks.*

H. How Do I Use Education and Publicity to Inform the Public?(HHW brochure overhead)

As we all know, the main reason for HHW days is not to try to get rid of all the nasty chemicals in all of the households since this would be impossible to do. The main reason is to educate the public about not buying as much, buying less toxic products, using non-toxic alternatives and recycling so less of these hazardous materials end up in our landfills, wastewater treatment plants and don't pollute our ground water and surface water.

Publicity should begin as soon as a date for collection is chosen and it should appear on a regular basis and it should highlight progress being made with the planning, presenting additional facts about HHW, and providing contacts for more information. There are several publicity methods that have been used during Wyoming household hazardous waste collection days.

1. *The best educational tool that has been used for Wyoming HHW days is the brochure entitled, "Hazardous Wastes From the Home". The department raised money for the second printing of this brochure by receiving monetary donations from several Wyoming cities/towns/counties and by using this money to match a Pollution Prevention Grant to have the brochure made and then copies were pro-rated to the Cities/Towns based on the amounts of money each entity donated.*
2. (Overhead of Laramie logo) Pre-Collection Day Publicity. Some examples of pre-collection day publicity in Wyoming are:
  - a. *Casper used the City water bill to advertize the collection day and waste types that could and couldn't be brought in*

- b. *Laramie used a local school artist contest. This is a logo made by the University of Wyoming Art Department (see handout materials)*
- c. *Casper used several billboards across the City to advertize*
- d. *Ray Hageman, local Laramie DJ, interviewed several committee members on his radio talkshow a week before the collection day)*
- e. *Newspaper ads (Douglas example)*
- f. *Television (Cheyenne example) Cheyenne used the local television station, KGWN-TV 5 and this was the main reason for Cheyenne's first successful HHW day*
- g. *Mall presentations have been used but have not been very successful. Hands on children science education projects have been successful in gaining mall walker's interest.*

3. Collection Day Publicity (P2 overhead)

*During the recent Cheyenne HHW Day, a large sign was placed at the entrance to the facility listing the following pollution prevention tips (list all bullet items from overhead). It is hoped that this sign will help prevent people from bringing back the same HHW every year if they follow the tips on the sign.*

*In Casper, they have had the local radio station broadcast live from the collection day event on the hour telling people what they could bring. This proved to be real effective in bringing more people to the collection day.*

4. (Cheyenne newspaper ad overhead)

Public satisfaction with the collection day can be measured through questionnaires filled out when participants arrive at the collection site. Local media should be provided with followup stories of the event, such as a report about the amount of HHW collected. The report should be within two days after the event to get full impact of what the program is doing for the community. This confirms to the public how important the program was, why continued programs are needed and provides an assurance on the amount of hazardous waste removed from the solid waste stream.