

LEGISLATIVE REPORT

HOUSEHOLD HAZARDOUS MATERIALS PROGRAM



**SAFE, SMART,
SOLUTIONS FOR IOWA**



The Iowa Department of Natural Resources (DNR) Household Hazardous Materials (HHM) program provides a wide array of opportunities for Iowans to learn about proper purchasing, use, storage, disposal and dangers related to common household products. HHM programs also provide Iowans with proper disposal opportunities for little- to no-cost. The DNR's HHM programs are funded through a portion of the solid waste tonnage fee and HHM retailer permits.

This report discusses actions undertaken and results from the DNR's HHM program and its stakeholder partners in Fiscal Year 2009.

THE IMPACT OF HHMs

HHMs are found in nearly every store, under every sink, in closets, basements and garages. Consequently, nearly every household (and business) in the state generates household hazardous waste. These materials are likely to end up in local solid waste facilities or in municipal sewer systems, septic tanks or even released directly into the environment unless steps are taken to manage this waste independently from other household (and business) wastes.

Improper disposal of HHMs has a negative impact on the environment and aquatic life; potentially contaminating groundwater, surface water and land, impacting air quality and compromising the effectiveness of septic systems and wastewater treatment plant operations.

HHMs are also associated with adverse health, environmental and safety effects. Health effects caused by hazardous waste can be acute (sudden or immediate onset of severe symptoms) or chronic (gradual onset of symptoms occurring through repeated exposure over an extended period of time).

HHMs are the leading cause of poisonings in children. Through November 2009, the Iowa Poison Control Center reported nearly 8,805 exposures to HHMs. Of reported poisonings, 61 percent occurred in children under the age of six.

WHAT ARE HHMs?

HHM is a term defining common household products that have one or more of the following characteristics:

TOXIC: poisonous, causing cancer or other health problems

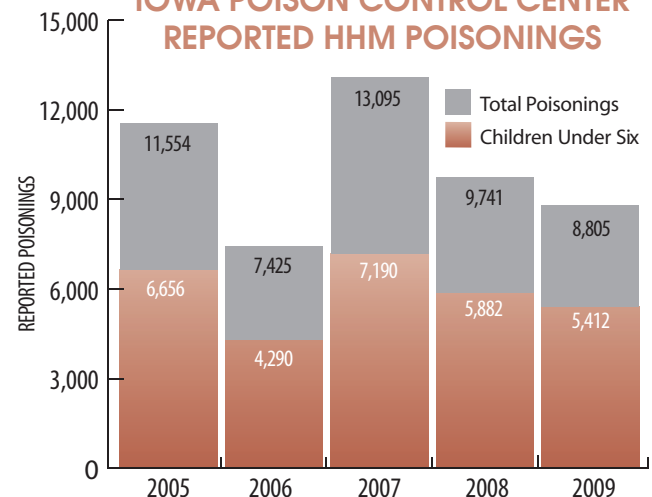
CORROSIVE: destroys human tissue or corrodes metal

FLAMMABLE: easily ignitable and will burn

REACTIVE: explosive through exposure to heat, sudden shock, pressure or comes into contact with incompatible chemicals

Household hazardous waste (HHW) is commonly defined as waste from residential sources composed of old or unwanted products that exhibit any of the characteristics of HHMs. In Iowa, businesses generating small amounts of hazardous waste are included in the definition of HHW and eligible to participate in DNR programs.

IOWA POISON CONTROL CENTER REPORTED HHM POISONINGS





TOXICS IN PACKAGING

Iowa's Toxics in Packaging law prohibits the sale or distribution of packaging containing heavy metals such as cadmium, lead, mercury, and hexavalent chromium if intentionally introduced and sets limits on incidental presence of these heavy metals in packaging materials. The purpose of this law is to prevent these toxic heavy metals from entering the environment, recycling stream, landfills, and waste incinerators.

The Toxics in Packaging Clearing House (TPCH), a joint organization of ten states including Iowa, developed and implemented an EPA-funded study to screen packages for the presence of heavy metals. The goal of the study and outreach project was to reduce the amount of toxic heavy metals entering the solid waste stream through preventing the introduction of these metals into packaging at the source.

Participating states obtained 409 packaging samples from retail outlets and conducted 628 tests on various packaging components. Packaging samples were taken from common items such as plastic sacks, mailing/shipping envelopes, home furnishing bags for bedding products, and water bottles. Of the 409 packages sampled 58, or 14 percent, exceeded heavy metal concentrations allowed under Iowa law; 16 packages exceeded the 100 parts per million (ppm) limit for more than one heavy metal.

The TPCH also undertook extensive outreach to manufacturers, distributors, and retail establishments about the toxics in packaging restrictions. Following testing, several companies responded with positive action to remove the packaging with heavy metal content exceeding state law.

TPCH STUDY RESULTS		
Note: the acceptable limit on heavy metal content is 100 ppm or less		
HEAVY METAL	SAMPLES OVER LEGAL LIMIT	RANGE OF RESULTS
CADMIUM	39	137 - 687 ppm
LEAD	19	122 - 150,388 ppm
MERCURY	2	170 - 258 ppm
CHROMIUM	14	131 - 6,706 ppm

IOWA HHM EDUCATION INITIATIVE

The DNR is currently developing a statewide education initiative to inform Iowans about the importance of proper HHM management and to increase the use of required HHM signs and brochures in retailer stores. The education initiative will focus on four messages to the public:

- Read the label
- Proper purchasing
- Use and store safely
- Proper disposal

As required by Iowa Code, the DNR will provide signs and brochures to retailers for point-of-purchase consumer awareness. Regional Collection Centers will be provided newspaper ads and radio spots to tailor to their particular service areas to promote local education and awareness. Placement of the initial HHM education campaign messages will begin in spring 2010 with new messages strategically placed over the next few years.



SAFE PHARMACEUTICAL DISPOSAL

On November 2, 2009, the Iowa Pharmacy Association launched *TakeAway*, Iowa's pilot pharmaceutical disposal program in an effort to curb the consequences of improper storage and disposal and to educate the Iowans about proper pharmaceutical disposal.

More than 320 pharmacies in 97 of Iowa's 99 counties are participating in *TakeAway* as collection sites. Once the collection containers are full, they are secured and shipped to a licensed Texas incinerator for certified final disposal.

During the 2009 legislative session Senate File 467 was signed into law by Governor Culver establishing the pilot program with up to \$165,000 allocated from the DNR's Solid Waste Alternatives Program. The Iowa Board of Pharmacy partnered with the Iowa Pharmacy Association to implement the pilot program. The pilot program is scheduled to conclude March 2010 when the program summary report and recommendations for a long-term solution are due.

REGIONAL COLLECTION CENTERS



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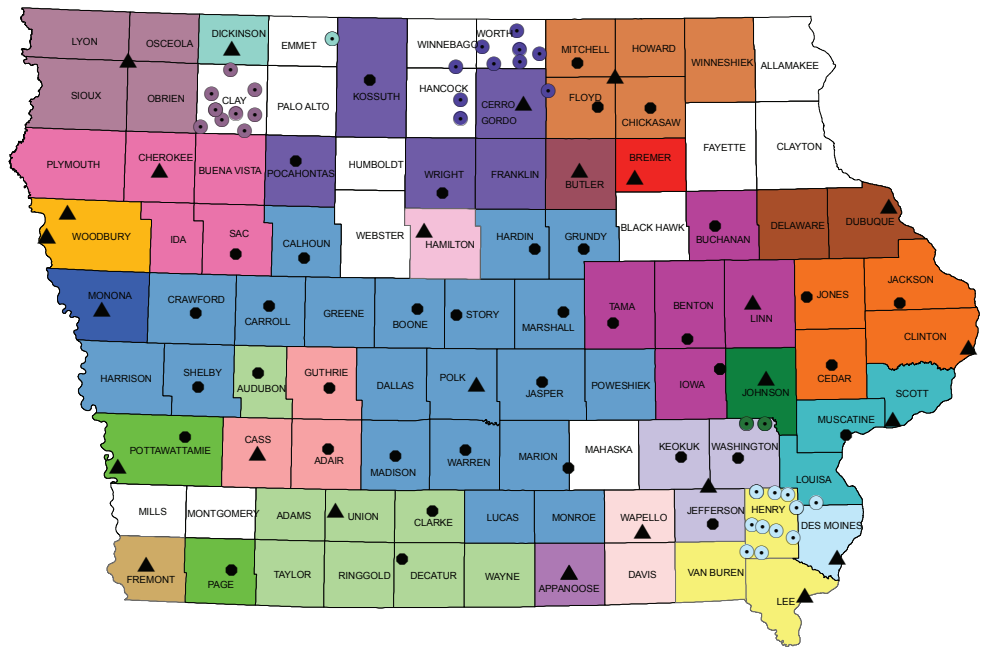


Regional Collection Centers (RCCs) are permanent collection facilities designed to assist the public and conditionally exempt small quantity generator (CESQG) businesses with proper management and disposal of HHMs. RCCs accept specific types of hazardous waste for disposal either through local outlets or through contracted service and also provide a materials exchange (Swap Shop) and educate citizens about proper purchasing and management techniques for HHMs.

RCCs IN IOWA

Currently 26 main facilities and 38 satellite facilities are operating across the state serving a total of 89 counties. RCCs experienced an increase in the amount of materials collected in 2009. Nearly 4 million pounds of HHMs were removed from the solid waste stream: a 12.5 percent increase from 2008.

For local RCC contact information go to www.safesmartsolutions.com



Regional Collection Center Service Areas

▲ RCC Main Collection Facilities ● Satellite Facilities ⊙ Serviced Towns

 Bremer Co RCC	 Great River Regional RCC	 NW Ia SWA RCC
 Butler Co RCC	 Hamilton Co RCC	 NIASWA Serviced Towns
 Cass Co RCC	 Haz Chem of SE Iowa	 Ottumwa Wapello Co RCC
 Cedar Rapids Linn Co RCC	 Haz Chem Serviced Towns	 Plymouth Cherokee Buena Vista RCC
 Clinton Co SWA RCC	 Iowa City RCC	 Prairie and Partners RCC
 Council Bluffs RCC	 Iowa City Serviced Towns	 Rathbun Area RCC
 Dickinson Co RCC	 Landfill of North Iowa RCC	 Scott Area Regional RCC
 Dickinson Serviced Town	 LNI Serviced Towns	 SEMCO RCC
 Dubuque Co RCC	 Metro Waste Authority RCC	 Sioux City RCC
 Floyd Mitchell Chickasaw RCC	 Monona Co RCC	 Woodbury Co RCC
 Fremont Co. RCC		 Unserviced Areas

THE BENEFITS OF RCCs

- Permanent availability, often year-round
- Increased surface and groundwater protection
- Increase in worker safety for both solid waste collectors and landfill operators
- Decrease in hazardous exposures to humans and pets
- Reduced potential for damage to sewer and septic systems from improper disposal
- Lower per pound disposal costs
- Ongoing education for Iowa residents
- Available for eligible businesses, schools, etc.
- One facility can serve several counties



REGIONAL COLLECTION CENTER PROGRAM FY 2009 SUMMARY & ACCOMPLISHMENTS	
Establishment Grants	\$549,500
Operating Assistance Support	\$457,821
TOTAL PROGRAM INVESTMENT FOR 2009	\$1,007,321
TOTAL MATERIALS MANAGED	
TOXIC Examples: insecticides, pesticides, poison	144,419 lbs.
CORROSIVE Examples: drain cleaners, mercury	49,830 lbs.
FLAMMABLE Examples: lighter fluid, aerosols, thinners, oil-based paint	331,443 lbs.
REACTIVE Examples: pool chemicals, toilet bowl cleaners, ammonia	6,324 lbs.
E-WASTE Examples: computers, televisions, cell phones	680,042 lbs.
PAINTS	981,049 lbs.
MOTOR OIL	579,966 lbs.
LEAD-ACID BATTERIES	133,438 lbs.
FLUORESCENTS	51,398 lbs.
OTHER MATERIALS Examples: sharps, scrap metals, used oil filters, anti-freeze, rechargeable batteries	1,003,822 lbs.
HMMs REUSED LOCALLY THROUGH SWAP SHOP	245,598 lbs.
TOTAL CONTRACTED HHM DISPOSAL	1,750,297 lbs.
TOTAL HHMs MANAGED LOCALLY	1,965,836 lbs.
TOTAL AMOUNT OF HHMs MANAGED	3,961,731 lbs.
Number of Participant Households	27,533
Average HHMs collected per participant	121 lbs.
Number of CESQG participants	1,100
Average HHMs Collected per CESQG	568 lbs.
DNR operations support per pound of hazardous waste collected for contracted disposal	\$0.61

