The Pulaski County
Regional Solid Waste Management District

Free Medical Sharps Container Program
Special Waste Collection Program

Solid Waste Association of North America
Special Waste Excellence Award
2009
Executive Summary

In October 2005, the Pulaski County Regional Solid Waste Management District (District) in Little Rock, Arkansas, began a unique recycling program the collection of medical sharps for disposal and recycling by the generation of waste to energy. The program specifically targeted medical sharps (used needles and syringes) generated by those citizens in Pulaski County that regularly use syringes or other forms of injection paraphernalia. Still a unique concept across the United States, it is the only program of its kind in Arkansas.

How it works:

- The solid waste district purchases one-quart containers utilizing grant funding
- Containers are delivered to area pharmacies by District
- Anyone can request a container
- Filled containers are taken to District Household Hazardous Waste Collection Centers
- Collected containers and needles used in waste to energy program

Not only does this special waste collection and processing follow recycling principles of the waste to energy program, it protects the basic health and welfare of the sharps users and handlers.
Section 1. 
Design of Collection Facility/Management System

The Pulaski County Regional Solid Waste Management District (District) was formed in 1992 as one of seventeen Arkansas Regional Solid Waste Management Districts authorized under Act 752 of 1991. The District encompasses the geographic area of Pulaski County, Arkansas. According to the 2000 census, there are 361,967 residents in the county and its cities. The District is the largest solid waste district in the state and includes the capitol city of Little Rock.

Its board is chaired by the Pulaski County Judge/CEO and other board members include the Mayors of Jacksonville, Sherwood, Maumelle, North Little Rock and Little Rock.

The District assists local governments in planning and overseeing municipal solid waste management programs and services and administers recycling grants, waste tire collection and processing and other programs such as e-waste and household hazardous waste collection, recycling and disposal programs.

The primary mission of the District is an ongoing effort to promote the health and welfare of its citizens; the sharps container program is a top priority in the overall planning of the District staff.

New Environmental Protection Agency regulations were issued in 2004 for the proper disposal of used needles because too many public works employees were being accidentally injured by used needles in the course of doing their jobs. As a result, the District formulated this program to aid in the protection of public workers, children, adults and pets.

The concept of the program consisted of distributing free containers for in home use by injectors and collecting the filled containers for a waste-to-energy program.

The program initially cost $2,600 to set up and implement and the ongoing operating cost is approximately $3,600 a year.

Each participating pharmacy initially received twenty new containers, signs for the cash register area and hand-outs contain information for how and where to drop off filled containers. A total of thirty-five pharmacies participated in the initial drive.

Individuals may go to any participating pharmacy where they will receive a container for in home use. Once filled the container is taken to any of the five household hazardous waste collection drop-off centers located in the District. Once received at the center, the containers are collected by the hazardous waste
contractor and processed by a waste-to-energy generator. Both the needles and the container are included in this process.

Pharmacies are supplied with new containers, as requested. As of March 2009, the program has sixty-six pharmacies participating.

In 2008, a total of 1,128 pounds of used needles were disposed of. To date, a total of 6,060 containers have been distributed. Prior to this program, most individuals either flushed the sharps down their toilet or discarded them into plastic trash bags.

**Simplicity of Design Contributes to Cost Effectiveness and Efficiency**

The success of the sharps program is due to the basic design. Pharmacies are eager to participate because little effort on their part is required. A pharmacy may only store a minimum supply of containers.

Containers are ordered by the District in bulk to lower their acquisition cost and are bagged in groups of twenty for delivery to the various pharmacies. Each container is labeled with recycling instructions.

Household hazardous waste centers are strategically set up throughout the District to facilitate collection of used sharps.

The sharps program costs about $300 per month to operate and serves a population of nearly 362,000 people.

**Innovative or Unique Aspects of the Program**

A sharps collection program of this type is new to Arkansas and the southern United States. Some individuals may participate in mail-back programs, but most used needles are collected in coffee cans or plastic bottles and therefore are a hazardous commodity. Others are simply thrown in the trash or flushed down in the toilet. These methods pose potential health problems to sanitation crews and wastewater personnel. Children and pets can become unintentional targets of accidental needle sticks by playing near waste collection containers.

The District takes pride in researching and creating new programs that benefit its constituents. The public’s health and welfare is always a priority. The District’s sharps program is unique in that it is the only one of its kind in the state of Arkansas and one of a few in the United States.
What makes this program different?

Most recycling programs are set up to collect an item or items that can be demanufactured, recycled or reused. Recyclables are tangible materials. A sharps container program is essentially a program facilitated to protect the public. Using the needles for waste-to-energy is a recycling bonus. This program is not intended to be a money maker but rather an enhancement to the environment.

Section 2.
Environmental Benefits and Regulatory Compliance

- Nine million Americans use self injected prescription drugs
- Three and one-half million used needles are disposed of in Pulaski County, Arkansas each year
- One in twelve homes in the United States has a self-injector
- Three billion needle injections occur yearly outside of medical facilities
- Two billion are from patients treating at home and the other one billion are illicit drug users
- 93% of self-injectors dispose of used needles in the trash
- 4% of other users place needles in sharps containers
- 3% flush needles down the toilet
- Twenty-one million Americans have diabetes resulting in the need for insulin injections, which will increase 165% in next fifty years
- Most sharps end up in the municipal waste stream
- Unchecked the problem will get worse and is estimated to rise four to five times in the next ten to twenty years
- More in-home injectables have been and are being developed by the pharmaceutical industry
- Chronic illness is on the rise
- The United States population is becoming increasingly older
- Patient care is being phased out of hospitals resulting in more care at home

Who is impacted?

- Household residents and pets
- General population in public areas
- Workers in service industries such as; recycling, waste disposal and water treatment
What are the affects?

- Transmission of diseases
- Life altering illnesses (HIV, HEP B and C)
- Possibility of long term medical care

This program provides an alternative method of disposal that does not contaminate the environment. Sharps and containers collected are used in a waste-to-energy program. The end result equals source reduction, reuse and promotes a healthy environment.

The Program’s Role in Community’s Integrated Solid Waste

An estimated 93% of all used needles are being placed in the trash or flushed in toilets. This potential health hazard plays a key role in a community’s integrated solid waste program.

All used needles come from unknown origins and must be considered as potentially dangerous infectious material. Any used needle in public waste creates a mechanism for accidental needle sticks.

Historically, state health departments have issued minimal regulations governing the disposal of discarded needles. Some state and federal legislation has been passed, more is anticipated. Other than medical personnel, wastewater and sanitation workers are in the highest risk category for accidental needle sticks.

Impact of Needle Sticks

- Physical and emotional trauma
- Loss of work and income
- Cost and duration of testing and treatment
- Transmission of diseases
- Life altering illnesses (HIV, HEP B and C)
- Possibility of long term medical care
Compliance

The District purchases only regulated containers from Sharps Compliance. These containers are puncture proof for durability and safety. All employees working in the drop off centers have been trained and certified to handle hazardous waste. Employees never make contact with the filled containers. The user places the filled container into a certified medical waste collection bin.

The contractor retains all required certifications and license to pick up and recycle household hazardous waste. The contractor has Environmental Protection Agency, Arkansas Department of Environmental Quality and Department of Transportation certifications and permits. The contractor inspects the condition of the collection facility during pick up.

Section 3.
Program Planning

The Planning Process

- Visit with the Coalition for Safe Community Needle Disposal
- Research all existing programs
- Research container distributors and set up account with Sharps Compliance
- Obtain listing of all pharmacies in Pulaski County
- Invite all pharmacies to join the program
- Design logo, handout materials and signage for pharmacies
- Order sharps containers
- Deliver containers, handouts and signage to pharmacies
- Training and education for household hazardous waste workers
- Advertise the program
- Set up bookkeeping for records and statistics

The focal point of the planning process is learning the positives of this program and the benefit to the public. This program has a direct impact on a community’s way of life. With very little investment and negligible management, a program can be developed with huge benefits to the public.

The community is unaware of this potential danger lurking in the solid waste stream. The employees in the public works departments are aware of the danger from personal experience. Many have witnessed co-worker’s pain and mental anguish from accidental needle sticks.
After reading newspaper accounts and listening to employee’s dilemmas, the District felt the need to do something about this problem.

Household hazardous waste centers were already established and set up to take sharps, so a collection program can effectively be in place at minimal cost to the District.

Working with pharmacies has proven to be very positive. From there, it is a simple task of delivering containers and promoting and educating the public about the program.

This program has made a resounding difference in the workers environment.

**Section 4. Performance, Economics and Cost Effectiveness**

A sharps container program is one of the simplest environmentally friendly programs to establish and manage. There is minimal work involved. Any recycler can easily set up this type of program which is easy to maintain and promotes good will in the community.

The program is a confidence builder for the pharmacies and the District. Program participants respect the fact that private and public businesses have their welfare in mind.

Each year the expenses are relatively constant. The cost of the program is minimal which should be atypical across the nation. Supplies for the program consist of one quart containers and delivery bags. Programs of this nature should be comparable in cost anywhere in the United States. The only disparity in cost would be determined by the size of the population area and the number of pharmacies participating.

**Section 5. Utilization of Equipment/Systems and Technologies**

This program does not require any type of special equipment to operate. Efficiency and effectiveness of this program is determined by the efficiency of the deliverer and maintaining enough containers in stock. Records are kept on a computer print out of participating pharmacies and dates containers are delivered to pharmacies.
Section 6. Worker Health and Safety

All employees must have certification in household hazardous waste. Each year training classes are organized for first time certification and for refresher courses.

Safety is vital to this program. No employee is allowed to handle the full sharps containers. Individuals place their own filled container into the hazardous waste container at the collection center.

No injuries have been reported by any employees. No records of accidental needle sticks have been experienced at sanitation departments, wastewater facilities or recycling centers since the inception of this program.

Section 7. Public Acceptance, Appearance and Aesthetics

There are five household hazardous waste centers in Pulaski County and the cities contained therein. All five centers are maintained by public works employees. Each center is kept free of spills (chemicals), straightened before closing and miscellaneous equipment and materials are stored neatly. All centers have periodic spot checks.

Information on this program may be found on the District website at www.regionalrecycling.org. This program is very successful and regularly receives positive feedback from the public. Each center is positioned in a different Class One city of the county, which helps to form a bond with the citizens and the county.

This program is sustained with a recycling grant from the Arkansas Department of Environmental Quality.

Three years ago, the sharps container program was presented as a model for community programs at the National Recycling Coalition Conference in Atlanta, Georgia. The presentation was given by Jenny Schumann, Executive Director of the national organization, the Coalition for Safe Community Needle Disposal. Two years ago, the free sharps container program was highlighted at the Arkansas Recycling Coalition/Missouri Recycling Coalition (ARC/MO) Conference held in Branson, Missouri.

The District has always taken a leadership role in developing new programs and enhancing existing programs. The District takes a regional approach by working with and helping other districts.
Side Note: The District was one of the first permanent electronics and household hazardous waste centers to open in the state. The District is presently helping five other Arkansas counties with their electronics program.

The District will be helping four communities in Arkansas develop sharps container programs and several communities in Missouri have established programs as a result of the ARC/MO conference in Branson.

Information on this program is available at pharmacies, through our office and at each collection center. This program is well accepted in the community and many citizens rely on this program for their medical waste needs. A feeling of security comes from a program of this nature.
A Look At The Program

Sanitation and Wastewater employees subjected to needle sticks

$154,000 for the city, but will also mean a startup cost of $180,000 for the fleet of new trash cans.

“What we’re trying to do is expand city services,” said Johnson, who added that the labor-heavy Sanitation Department has been plagued by personnel problems and noted automated collection would alleviate many of those.

Also, from a liability standpoint, Cogdell said that although putting “sharps” — biohazardous objects like used hypodermic needles — in the trash is illegal without encasing them in a solid container, twice his sanitation workers have been stuck by them on regular garbage routes.

The ordinance was not read for the first time Monday, as would often be the custom, but simply introduced to the aldermen.

“What we want to do is give them [the aldermen] a period to think about it,” Johnson said.

And already Monday night a few suggestions were forthcoming.

Ward 3’s Chris Plante said he’d like to see a provision added so residents could buy a trash can outright from the city if they chose to do so, to which Cogdell replied he wouldn’t object, but no city he’d surveyed offered such a service. The benefits of a city-owned can, he said, are that the Sanitation Department will come fix the cans — from detached wheels to broken lids — upon request.

“I just know some people in the community that have purchased cans that are up to standard, so I would like to see that added,” Plante said.

The ordinance will likely be read for the first time at the Council meeting on Oct. 3, and the measure will likely be put to vote at its meeting on Nov. 7.

City cans for everyone could make the job doable for one man.

Newspaper article from the Maumelle Monitor
Maumelle, Arkansas
Pulaski County
Needles found in recycling collectors

Loose needles are often found in recycling and trash containers. Because of this health hazard, the District implemented a free sharps container program.
Free
Sharps Container Available Here

Please accept a free sharps container. Return full container to a household chemical center listed below for proper disposal.

Pulaski County Sanitation .................. 3403 W. 33rd. St.
North Little Rock Public Works ........... 12th and Willow St.
Sherwood Public Works .................... 6500 North Hills Blvd.
Jacksonville Recycling Center .......... 1300 Marshall Rd.
Little Rock .................................. 10001 Kanis Rd.

This program is sponsored by Pulaski County Regional Solid Waste Management District
Promoting a safe community
For more information, please call 340-8787
Participating Pharmacy

A total of sixty-six pharmacies participate in the free sharps container program. Each pharmacy stores new containers which are handed out to citizens as needed. A pharmacy’s container supply is replenished by simply making a request to the District.

Proper disposal information can be found at the pharmacy, on the container and from the District.
Household Hazardous Waste Collection Center
Five of these centers are located within Pulaski County and its cities.

Items Collected
- Sharps
- Used oil
- Used gasoline
- Anti-freeze
- Batteries
- Cleaning materials
- Flammable Liquids
- Propane and helium tanks
- Pesticides and Fertilizers
- Fluorescent Light Bulbs