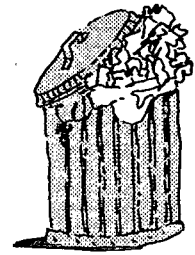




REUSABLE NEWS



Recycling Makes the Grade in Schools



Education comes in many forms. In addition to teaching reading, writing, and arithmetic, it can also give young people the tools to meet society's challenges. One of the lessons that schools can teach is an increased awareness of the environmental problems we face, and how individuals of all ages can work together to meet these challenges.

Many educators have already begun imparting positive attitudes and increased awareness of environmental issues in their classrooms. To supplement these efforts, EPA has developed a comprehensive educational program to promote recycling and waste awareness in schools. This program, created in conjunction with national education and teacher associations, currently consists of five publications aimed directly at students and teachers:

- **Let's Recycle: A Curriculum for Solid Waste Awareness** (EPA/530-SW-90-005). Presents lessons and activities to teach students in grades K-12 about solid waste generation and management. The curriculum covers such issues as the value of natural resources, the importance of recycling, and the responsibility each person bears for the generation and disposal of his or her trash. It also teaches a variety of skills including science, vocabulary, mathematics, and creative writing.
- **School Recycling Programs: A Handbook for Educators** (EPA/530-SW-90-023). Describes different types of school recycling programs, along with step-by-step instructions on how to set up actual projects. It also highlights several success stories from across the

country and provides instructions for applying to the President's Environmental Youth Awards Program, which has honored several school recycling projects.

- **Adventures of the Garbage Gremlin: Recycle and Combat a Life of Grime** (EPA/530-SW-90-024). Introduces students in grades 4-7 to the benefits of recycling through an engaging comic book approach. Students are led on a lively adventure where they encounter the problems associated with garbage and watch their peers foil a scheme of the "Garbage Gremlin" to make their school his new home. The "Garbage Gremlin" symbolizes the wasteful habits in our society that we must work to recognize and overcome.
- **Ride the Wave of the Future: Recycle Today!** (EPA/530-SW-90-010). A colorful poster designed to promote recycling at all grade levels. A joint effort between EPA and the National Science Teachers Association, the poster appeared in the February issue of *The Science Teacher* and can be displayed in conjunction with recycling activities or used to help foster recycling.
- **Recycle Today! An Educational Program for Grades K-12** (EPA/530-SW-90-025). Presents the goals and objectives of EPA's Recycling Program, and describes the four educational resources listed above in a concise pamphlet.

EPA plans to begin distributing these materials in April 1990, as part of Earth Day activities. For more information, write to Mia Zmud, Office of Program Management and Support (OS-305), U.S. EPA, 401 M Street, SW, Washington, DC 20460.

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Congress Sees Bumper Crop of Solid Waste Management Bills

The rapidly growing interest in source reduction and recycling has found a voice at the national level. Members of the Senate and the House of Representatives have introduced over 100 new bills related to solid waste management so far this session. In addition, on February 26, Congress adopted a joint resolution declaring April 1990 "National Recycling Month."

Senate Seeks Solid Waste Solutions

In the Senate, attention has focused on two bills introduced by Senators Max Baucus and John Chafee.

The Baucus bill would establish a national waste prevention and management policy for all types of waste, giving highest priority to source reduction and recycling, and require states to develop solid waste management plans consistent with this policy. It would also set national goals for waste reduction (10 percent within 4 years) and recycling (25 percent within 4 years, 50 percent within 10); establish a National Packaging Institute to develop standards for packaging and to encourage their use through public education; and provide a 10 percent price preference for federal procurement of recycled products. In addition, the bill would establish new requirements for solid waste incinerators, restrict solid waste exports, require permits for solid waste treatment and disposal facilities, and allow for the prohibition of products containing hazardous substances from incinerators or landfills.

The Chafee bill focuses on source reduction and recycling of solely municipal waste. The bill would establish an Office of Waste Reduction within EPA, set forth detailed state planning requirements; establish grants, low-interest loans, and loan guarantees to promote source reduction and recycling; and prohibit the permitting of new incinerators unless their capacity leaves at least 50 percent of the waste stream in the proposed service territory available for waste reduction and recycling.

Cleaning Up in the House

The farthest reaching bill regarding all types of solid waste has been introduced by Representative Thomas Luken in the

Over 100 solid waste bills have been introduced in Congress so far this session.

House. It would establish a national policy for solid waste management that gives preference to waste reduction and recycling, encourage markets for recycled products, and tighten standards for disposal of municipal solid waste. The bill would also give EPA authority to promulgate waste reduction regulations, such as specifications for product design and composition, process modification, and

materials substitution. In addition, it would allow states to ban the importation of solid waste if they have an approved EPA waste management plan and are implementing it, and would establish a \$7.50 fee on each ton of virgin material used in 12 industrial categories, providing a \$300 million Recycling Assistance and Solid Waste Management Planning Fund.

Loans Help Small Businesses Curb Pollution

"Under this new program, the SBA can and will guarantee loans to affected small businesses of up to one million dollars."

Small businesses seeking compliance with federal, state, or local environmental regulations now have a new source of assistance thanks to the U.S. Small Business Administration (SBA) Pollution Control Loans (PCLs). This program, authorized under the Small Business Act, provides loans to small businesses for financing the planning, design, or installation of pollution control facilities.

"Under this new program, the SBA can and will guarantee loans to affected small businesses of up to one million dollars," says Karen Brown of EPA's Asbestos and Small Business Ombudsman.

PCLs may be used to fund any "pollution control facility," which the regulations define as any facility "likely to help prevent, reduce, abate or control noise, air or water pollution or contamination..." or to be used "for the collection, storage, treatment, utilization, processing or final disposal of solid or liquid waste." Funds for "resource recovery" (recycling) facilities may also be authorized, if an appropriate environmental agency can verify the usefulness of the project for pollution abatement.

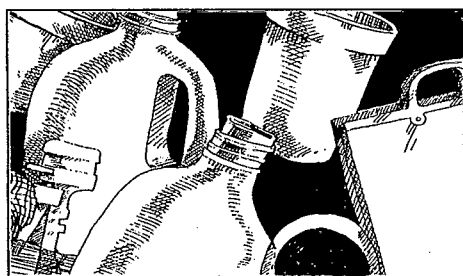
To be eligible for a PCL, a small business must be independently owned and operated, not be dominant in its field, and be able to meet SBA's credit and collateral criteria. Applicants must provide plans or specifications for the proposed facility, as well as realistic cost estimates detailing how the project will be completed with available funds. The application should also include copies of any regulations that pertain to the project.

For more information about the program and application procedures, contact any regional, state, or local SBA office or the Office of Small and Disadvantaged Business Utilization (703)557-1938.

A Look at Plastic Wastes

If Hollywood ever makes a sequel to the movie, *The Graduate*, Dustin Hoffman might well be advised that instead of "plastics," the future is in "plastic waste." Since 1950, the use of plastics in products and packaging has increased over 10 percent annually. Plastic wastes currently make up approximately 7 percent of the municipal waste stream by weight, but from 14 to 21 percent by volume.

EPA recently released its Report to Congress on *Methods to Manage and Control Plastic Wastes*. Mandated by the 1987 Plastic Pollution Research and Control Act, the Report assesses the environmental, technical, and policy issues related to plastic waste disposal, including plastics in the marine environment, and outlines a number of initiatives to



minimize the impacts associated with disposal activities.

The Report analyzes three alternative management practices for plastic wastes: source reduction, recycling, and the use of degradable plastics.

media attention, the environmental benefits of these plastics have not been proven. While EPA does not believe that these materials will reduce the landfill capacity problem, certain specific applications may be beneficial (see article

Only about 1 percent of all plastics are currently recycled.

Source reduction can reduce the overall toxicity and volume of plastic wastes, although the Report cautions that replacing plastics with alternative materials may not always yield desired results.

Soda bottles and milk jugs are the only plastics commonly recycled today, with about 20 percent being recycled. *Only about 1 percent of all plastics are recycled, however.* A major hurdle to widespread plastics recycling is the lack of a means to sort a mixture of plastics into single resins, but technologies currently under development should be able to overcome this barrier.

While degradable plastics are receiving a great deal of public and

below). More information is needed before such use can be promoted, however.

The Report also analyzes plastic wastes in the marine environment. A large number of seal, turtle, and bird species have been harmed due to entanglement in fishing nets, ropes, beverage container rings, and other plastic items, or after ingesting plastics. Also, plastic wastes washing onto beaches have had economic repercussions in some communities due to cleanup costs and lost tourist revenues. The Report concludes with EPA's agenda of objectives and action items to continue to address issues associated with plastic wastes.

The Degradable Plastics Debate

Wouldn't it be great if solid waste would just vanish? Such is the implied promise of degradable plastics—products would be used and then just disappear. Degradable plastics sound ideal, but the reality is much more complicated.

What Are Degradable Plastics?

"Normal" plastic products degrade very slowly. To increase degradation, some manufacturers have added a sun-sensitive component to their plastic products and packaging that triggers physical disintegration when exposed to sunlight (photodegradation). Another technology involves adding a natural polymer, such as cornstarch or vegetable oil, that degrades when exposed to microorganisms in the appropriate environment, resulting in smaller pieces of plastic (biodegradation).

Of Cabbages and Carrots

There is a popular theory that the more our garbage degrades, the more

room there will be in landfills for additional refuse. In truth, researchers have found that degradation in landfills occurs very slowly due to lack of sunlight and oxygen. Cabbages and carrots have been unearthed in landfills that are still recognizable after many years of burial. Thus, degradable plastics will have little, if any, effect on landfill operation or space.

The same is true for combustors. In most cases, waste will be combusted before any degradation begins, so degradable plastics will have little or no impact on combustion.

Degradable plastics also do not reduce the volume or toxicity of waste produced. In fact, some degradable plastics contain more material than "normal" plastics. Since adding degradable components can weaken the strength of a plastic product or package, manufacturers may design thicker items (with more plastic) to compensate.

In addition, recyclers fear that degradable plastics will complicate or

prevent recycling of plastic wastes into new products that perform well. As more is learned about how degradable plastic bags work, however, they may prove useful in collecting and composting yard waste.

Potential Benefits

If they perform appropriately, degradable plastics may help reduce risks to wildlife and aesthetic damage from items such as six-pack beverage rings, cups, and wrappers. There is, however, some concern as to whether the smaller bits of plastic resulting from degradation may pose a continuing threat to wildlife. Additionally, there is a question as to whether degradability might encourage littering. EPA has raised these issues with manufacturers of degradable plastics and is hopeful that its research and that of the plastics' industry will provide answers to these questions.



Hot Off the Hotline...



Reusable News answers the questions asked most frequently of EPA's RCRA Hotline. In recent weeks, the pile of unsolicited catalogues, advertisements, and coupons that comes to our homes, otherwise known as "junk mail," concerned many callers.

Q: May consumers shred their "junk mail" and add it to a compost pile?

A: EPA is not currently recommending consumer composting of junk mail. Shredded junk mail may be acceptable compost material, but little is known about how inks on the paper may affect the quality of the compost. The best way to get rid of junk mail is to stop it at the source. You can do this by writing to the Direct Mail Marketing Association (see article on page 7). Any junk mail you might still receive should be recycled if your program accepts it.



Resources



The following publications are available at no charge from the EPA RCRA Hotline. Call (800)424-9436 Monday through Friday 8:30 a.m. to 7:30 p.m. EST.

Methods to Manage and Control Plastic Wastes - Executive Summary (EPA/530-SW-89-051A). An overview of a report exploring the environmental, technical, and policy issues related to plastic waste disposal. (Ask the Hotline how to receive a full copy of the report.)

Decision-Maker's Guide to Solid Waste Management (Volume I) (EPA/530-SW-89-072). A guidebook designed to help local and state decision-makers understand and evaluate their current waste management problems.

America's War on Waste (EPA/530-SW-90-002). An environmental fact sheet describing EPA's completed publications, current activities, and future activities related to municipal solid waste management.

Office Paper Recycling: An Implementation Manual (EPA/530-SW-90-001). A comprehensive guide describing all aspects of setting up an office paper recycling program, including finding markets, developing a collection system, and educating employees.

Sites for Our Solid Waste: A Guidebook for Effective Public Involvement (EPA/530-SW-90-019). A guidebook for developing a municipal solid waste facility siting strategy that involves the community.

Plastics: The Facts About Production, Use, and Disposal (EPA/530-SW-90-017A). A fact sheet reviewing major uses of plastics and impacts of disposal.

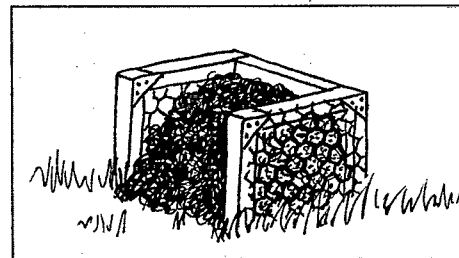
The Facts About Plastics in the Marine Environment (EPA/530-SW-90-017B). A fact sheet summarizing the main sources and impacts of plastics found in the ocean.

Plastics: The Facts on Source Reduction (EPA/530-SW-90-017C). A fact sheet describing the possibilities for source reduction of different types of plastic products.

The Facts on Degradable Plastics (EPA/530-SW-017D). A fact sheet outlining the information currently available on degradable plastics, their uses, and impact on humans and the environment.

The Facts on Recycling Plastics (EPA/530-SW-90-017E). A fact sheet summarizing the opportunities available for recycling plastics, and the current state of plastics recycling technology.

Build Your Own Compost Pile



Yard wastes, primarily leaves and grass clippings, currently make up approximately 18 percent of the municipal solid waste stream nationwide, though that amount varies from region to region and by time of the year. Yard wastes are easily composted into a humus-like soil amendment for lawns or gardens.

To make a compost pile:

- Clear a 3-foot square level area of sod and grass.
- Construct a bin out of chicken wire, scrap wood, or cinder blocks. The bin should have one side that can be opened for easy access.
- Place coarse brush at the bottom of the pile to allow air to circulate in the bin.
- On top of the brush, create a 6- to 10-inch layer of plant material, including grass clippings and leaves.
- Add a few inches of alfalfa meal or cat litter to help absorb odors.
- Follow this with a 2- to 3-inch layer of soil or manure.
- Repeat this layering sequence, alternating between the plant material and soil, until the pile is 4 feet high.
- Keep the pile moist and turn with a pitchfork every few weeks to distribute air and moisture. The pile will feel hot, and worms may be seen; these are signs that the natural composting process is working.

In most climates, the compost is done in 3 to 6 months when it becomes a dark crumbly material that is uniform in texture. Spread it in the garden, on yard beds, or under shrubbery. You can also use the compost as potting soil.

Peer Match Programs Lend a Helping Hand

As officials grapple with solid waste issues in their communities, many are finding they need more information or practical experience to help them make decisions. Now there are programs that can help. EPA currently sponsors three programs for officials facing solid waste decisions.

Two of them, the **Peer Exchange Program** and the **Public-Private Partnerships Program**, were initiated and are run by the International City Management Association (ICMA). The two programs provide assistance in solid waste management, ground-water protection, and wastewater treatment. The **Peer Exchange Program** matches community leaders with their "peers" (local decision-makers from other communities) who have successfully dealt with these issues.

The **Public-Private Partnerships Program** provides advice to local government officials on developing a working relationship with private sector corporations. Community officials are welcome to apply for assistance under either of these programs. Anyone with relevant experience can also get involved as an advisor. Call (202) 289-4262 or write to ICMA, 777 North Capitol Street, NE, Washington, DC 20002-4201.

The most recently established program, administered by the Governmental Refuse Collection and Disposal Association (GRCD) and the National Recycling Coalition (NRC), is the **Peer Match Program**. This program matches officials needing assistance with their peers in government, academia, or the field of solid waste.

The **Peer Match Program** provides technical assistance in many areas of waste management, including planning, implementation mechanisms, institutional approaches, source reduction, collection and transfer, recycling, composting, combustion (incineration and waste-to-energy), and land disposal. Assistance comes in a variety of forms, including site visits, written correspondence, telephone conversations, referrals, library resources, and the personal experience of members of GRCD and NRC. If you need assistance with solid waste management, or would like to become involved in this program, write to the Peer Match Program, P.O. Box 7219, Silver Spring, Maryland 20910, or call (800)456-GRCD.

It A-Peers To Be a Match!

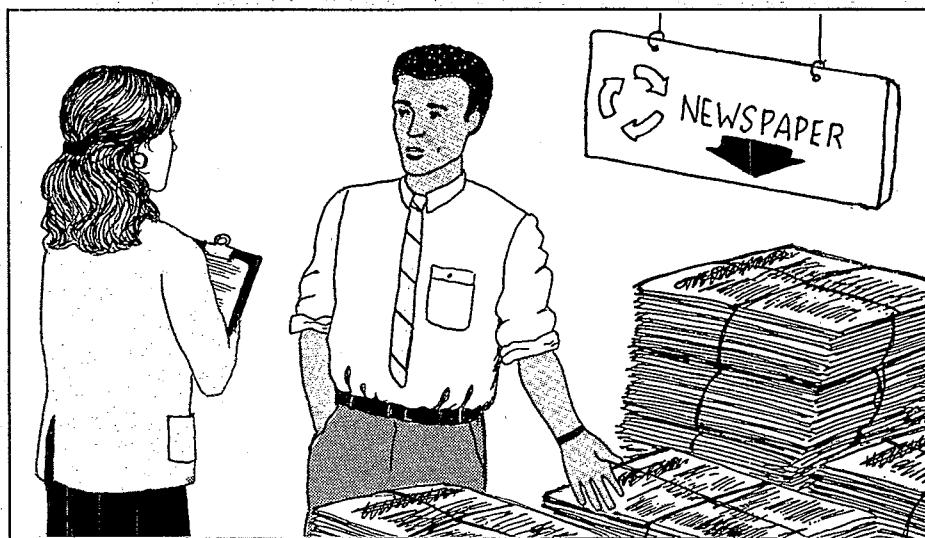
The ICMA **Peer Exchange Program** has made several matches in the area of municipal solid waste management.

Last year, a 10-town regional authority in northeast Connecticut (serving a population of over 70,000) needed assistance in developing a waste disposal and reduction strategy for rural communities. The program matched the authority with Buck's County, Pennsylvania, which has developed and implemented an integrated waste management strategy.

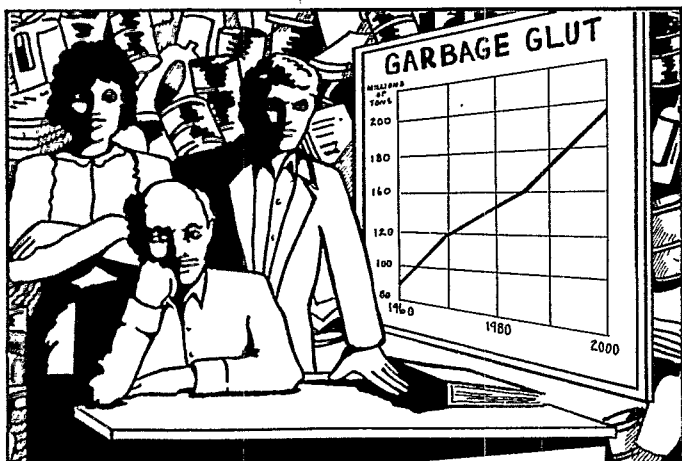
In October 1989, the authority's regional recycling coordinator, senior planner, and president traveled to Buck's County and met with the county's waste management team. The 2-day exchange involved tours of the county's landfill and methane recovery site, recycling center, and various recycling programs. The group also met with the private corporation assisting in the county's recycling efforts.

The GRCD/NRC **Peer Match Program** is also quite a match-maker. Recently, Jack DeBell helped the State University of New York, College at New Paltz, establish a campus recycling program. DeBell runs a campus recycling program at the University of Colorado and has over 13 years experience designing

and implementing recycling programs. The College at New Paltz had a pilot recycling program underway, and was interested in promoting recycling on campus. DeBell toured the campus, gave a presentation on how to make a campus recycling program work, and evaluated a proposal to promote a permanent program.



A User's Manual to MSW Management



The problems that challenge decision-makers in the field of municipal solid waste management are more complex than ever before. For example, in the next few years alone, thousands of landfills will close—either because they are full or because they do not meet the strict standards set for their design and operation. At the same time, the nation will continue to generate more and more municipal solid waste.

We are, however, witnessing the birth of innovative solutions to these problems in communities across the nation, solutions that combine planning, foresight, and cooperation among all the different groups involved. To keep decision-makers informed of these new techniques and approaches, EPA has published an update to the *Decision-Maker's Guide to Solid Waste Management*.

Originally published in 1976, the guide has successfully aided many communities in managing their waste. Due to the multi-faceted nature of today's evolving waste manage-

ment technology, this edition of the *Decision-Maker's Guide* has been subdivided into two manageable volumes.

Volume I contains information designed to help policy-makers understand and evaluate their current waste management problems; it also presents possible solutions and describes the interrelationships between various waste management options. Volume II, which will be issued later in 1990, will contain detailed information directed at managers responsible for implementing and integrating the chosen waste management approaches.

Contents of the *Decision-Maker's Guide to Municipal Solid Waste Management* (Vol. 1):

1. Integrated Waste Management
2. Factors Affecting Municipal Waste Decisions
3. Local Municipal Waste Management
4. Collection and Transfer
5. Source Reduction
6. Recycling
7. Composting
8. Municipal Waste Combustion
9. Land Disposal
10. Special Wastes
11. Public Education and Involvement
12. Financing and Revenues
13. Conclusions



To receive a copy of the *Decision-Maker's Guide to Municipal Solid Waste Management*, fill in this coupon and send it to U.S. EPA (OS-305), 401 M Street, SW, Washington, DC 20460:

Name _____

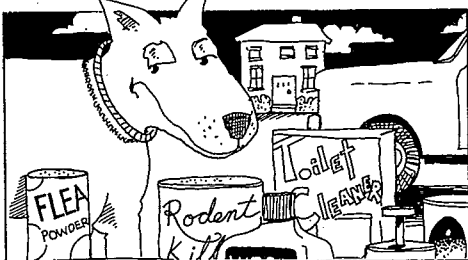
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Household Hazardous Waste Management Conference Hits Home

Audiotapes and proceedings of the fourth annual conference on household hazardous waste management (HHWM) are now available



from Dana Duxbury & Associates. According to Duxbury, one of the conference's key organizers, the overwhelming message from its 300 participants is that awareness of and participation in HHWM efforts continues to grow.

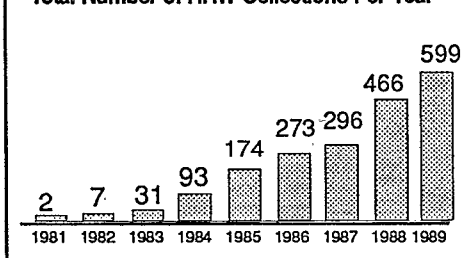
"The increase in household hazardous waste programs has been exponential over the past few years," she says. "There is a growing awareness of the need to remove the toxic component from the municipal waste stream." Duxbury also noted a recent trend toward permanent collection facilities in addition to a substantial increase in 1-day programs.

The HHWM conference, held last November in Orlando, Florida, focused on four major topics: reducing the toxic component of HHW; educating the public

about household hazardous waste management; maximizing participation in HHWM efforts; and providing information on the "how-to's" of setting up and running a household hazardous waste management program.

The conference included sessions devoted to used oil, paint, and pesticides—the three "big ticket" components of the household hazardous waste stream—and a session on lead, cadmium, and mercury from household and car batteries, and fluorescent tubes. Other sessions emphasized ways in which consumers could contribute to source reduction by buying nontoxic goods, and industries could be encouraged to reduce or eliminate the toxicity of their products.

Total Number of HHW Collections Per Year



This year's conference is scheduled to be held in November in San Francisco, California. For more information, contact Dana Duxbury & Associates at (508)470-3044.

The SWITCH Is On

The Governmental Refuse Collection and Disposal Association (GRCDA) is currently developing the Solid Waste Information Clearinghouse (SWICH) through a grant from EPA. The Clearinghouse, which will collect and disseminate information on all aspects of solid waste management, will be fully operational this summer.

GRCDA is currently seeking additions to the Clearinghouse library, which will be housed in its Silver Spring, Maryland, headquarters. Any documents, videotapes, computer programs, or abstracts are welcome, and will become permanent items in the collection. Individuals may use this library, or access the Clearinghouse through a toll-free number or an electronic bulletin board, both of which will be available later this spring. For now, individuals may call the SWITCH librarian at (800)456-GRCD.

SWICH offers a great opportunity for the exchange of cutting-edge technology, management experience, meeting announcements, and regulatory information. Please help make the SWITCH complete by sending copies of your solid waste management publications to: GRCDA, SWITCH, P.O. Box 7219, Silver Spring, MD 20910.

New Standards for MSW Combustors

EPA estimates that 10 to 15 percent of municipal solid waste is now incinerated. To ensure the effective operation of MSW combustors and the protection of human health and the environment, appropriate standards are essential.

Last December, EPA Administrator William Reilly issued a proposed regulation to control emissions from all new and existing MSW combustors. The New Source Performance Standards (NSPS) and Emission Guidelines (EG) will impose requirements in six

areas: fuel cleaning; good combustion practices; particulate emissions; organic emissions, including dioxins and furans; emissions from acid rain-producing chemicals such as sulfur dioxide; and nitrogen oxide emissions.

The fuel cleaning requirements, in particular, will have important implications for recycling of municipal solid waste. They require operators to separate a minimum of 25 percent of recyclables from the waste stream, including all household batteries. Although the rule does not stipulate that

these materials be recycled, the source separation requirements should enhance and encourage recycling efforts. Source separation may occur at the facility, at a transfer station, or at drop-off centers or curbside recycling programs. The proposed rule also prohibits the combustion of lead-acid batteries.

Final promulgation of the proposed NSPS and EG is scheduled for December 1990. For more information, contact Steve Levy of the Municipal Solid Waste Program at (202)382-4745.

Source Reduction "Til the Cows Come Home"

Where better to target source reduction than toward those items that Americans very regularly throw out? The Schroeder Milk Company of St. Paul, Minnesota, is one of several companies that are responding to just that idea by providing milk in returnable high-density polyethylene (HDPE) plastic containers. Because each of these reusable containers is used 50 times, 50 single-use containers would be thrown away for every 1 reusable container that enters the waste stream.

The reusable milk containers carry a refundable deposit of 40 or 50 cents each. But the milk itself is about 8 to 16 cents per gallon cheaper. The consumer, therefore, has an economic as well as environmental incentive to purchase milk from companies like Schroeder. At the same time, the retailers are eager to stock milk in reusable containers because it attracts both the environmentally aware and the

budget conscious consumer. Finally, the burden of managing a refund system has been minimized for the retailer because the reusable jugs are collected and returned to the milk supplier in the same crates in which they arrived. Because these crates take up the same space whether full or empty, the retailer does not need to provide additional space to make the program work.

Once returned to the milk supplier, the reusable jugs are sterilized, tested for contamination, and refilled by methods approved by the Food and Drug Administration. Sensors in the production line monitor each jug for evidence of nonfood material. If any is found, the jug is immediately destroyed.

Once the jugs are refilled, the whole process takes place again, and again, and again...until the jugs are worn out. Then they are collected for recycling, giving them yet another life.

New York Regional Office Procures Reams of Recycled Copier Paper

While purchase of recycled paper is becoming more common, use of copier paper with recycled content is not as widespread. That may soon change in EPA's Regional Office in New York, however, due to the success of a pilot program using recycled copier paper.

Under the program, this Regional Office (which covers New York, New Jersey, Puerto Rico, and the Virgin Islands) is implementing federal procurement guidelines by buying recycled copier paper, letterhead, and interoffice memo paper. Desmond Baumann, a member of the Regional Recycling Committee, researched sources of recycled copier paper with the help of Susan Becker, RCRA Environmental Scientist. Paper samples from several vendors were obtained and tested on copiers for static, moisture content, and dust. All of the samples were found to be satisfactory.

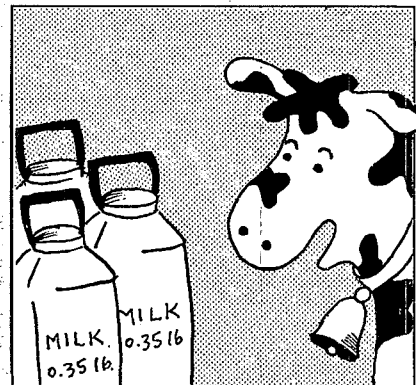
The office obtained a waiver from the General Services Administration

(GSA), which sets federal acquisition requirements, to order 2,800 cases of high-speed copier paper with a recovered material content of 50 percent (90 percent of this amount is pre-consumer waste and 10 percent post-consumer waste). The GSA waiver requires the office to monitor and report the effectiveness of the recycled paper, and so far there have been no complaints.

The office has also arranged to buy recycled letterhead and memo paper through the Government Printing Office. In addition, it produces interoffice memo paper by cutting in half paper that has been copied on only one side.

A final element of this recycling and reuse effort is a new program for recycling aluminum cans. There are now eight drop-off points for cans throughout employees' offices. The cans are donated to "We Can," an organization that uses the proceeds from aluminum can recycling to assist the needy.

The Mathematics of Waste Savings



Programs like Schroeder's can have a tremendous impact on the amount of waste generated. Consider this example of the waste produced by two families who consume the same amount of milk. One family uses Schroeder's reusable 1/2 gallon HDPE containers weighing 0.35 pounds each; the other uses typical disposable HDPE jugs weighing 0.11 pounds each. For every 25 gallons of milk consumed, the first family produces just 0.35 pounds of waste, whereas the other family throws away 50 milk jugs and generates 5 pounds of waste.

If consumers buy 250,000 units of milk in reusable containers each month, the savings increase exponentially. If these were all single-use containers, 27,500 pounds of HDPE waste would be generated. Instead, waste from these returnable containers is only 1,750 pounds. This is a reduction of waste at the source of over 25,000 pounds per month! Over 150 tons per year! These figures don't even account for the fact that many of the reusables are actually full gallon containers, resulting in bigger net waste reductions.

Putting Our Agenda into Action: *Source Reduction and Recycling*

Source reduction and recycling help prevent many of the problems associated with municipal solid waste, including the pressing need to site new landfills and combustors. Source reduction involves reducing the amount of trash produced, reducing the toxicity of waste, or providing a longer useful life of products. Recycling involves not only collecting and separating recyclable materials, but ensuring that these materials are processed into new goods, marketed, and reused by consumers.

In the **Agenda for Action**, EPA set a goal for the nation to reduce and recycle 25 percent of our garbage by 1992. To help the nation meet this goal, the Municipal Solid Waste Program is undertaking a number of projects, including:

- Issuing grants to the Coalition of Northeastern Governors and the Conservation Foundation which will be used to evaluate source reduction opportunities in the nation.
- Holding annual household hazardous waste conferences to promote source reduction and proper collection

and handling of these wastes, including reuse where feasible.

- Preparing reports examining possible economic incentives for source reduction, such as volume- or weight-based fees and taxes.
- Identifying toxic substances entering the waste stream, and exploring potential substitutes. A report entitled **Characterization of Products Containing Lead and Cadmium in Municipal Solid Waste in the United States** was released last year.
- Developing outreach documents, such as brochures related to environmental shopping, and fact sheets on diapers and disposable plastics.
- Expanding EPA's program to encourage federal procurement of goods made with recycled materials. EPA has established a procurement hotline, conducted outreach to federal agencies and vendors of recycled products, and plans to conduct a national series of workshops on the procurement program.

- Establishing the Recycling Advisory Council, which is being organized by the National Recycling Coalition. The Council will explore various recycling and marketing issues.
- Preparing market development studies for aluminum, glass, paper, tires, and compost, which will provide a base of information for understanding market fluctuations, as well as for expanding and improving these markets.
- Supporting various groups (including the Environmental Defense Fund, the U.S. Forest Service, and the U.S. Conference of Mayors) in using radio, television, and print advertising to foster recycling.
- Developing manuals, training materials, videos, and other tools that federal agencies, and ultimately state and local agencies, could use to promote and effectively conduct office paper and other commodity recycling.

Junk Your Junk Mail

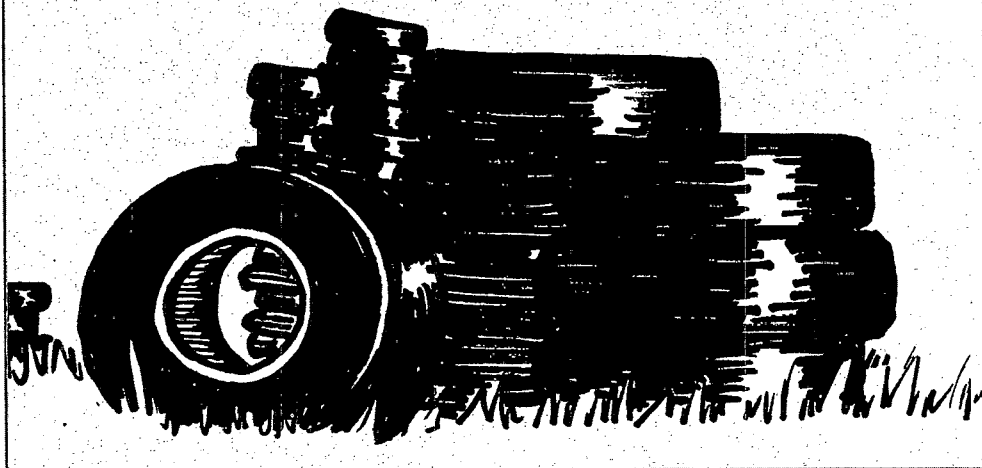
The daily delivery of "junk mail" can fill up home and office waste baskets at an astounding rate. If you have made just one mail order purchase, chances are your name is being added to computerized mailing lists at businesses and organizations around the country. By contacting the Direct Marketing Association and informing them that you would like to remove your name from such mailing lists, you may reduce the amount of junk mail you receive by up to 50 percent. Send requests to:

Direct Marketing Association
Mail Preference Service
11 West 42nd Street, P.O. Box 3861
New York, NY 10163

Or, call the Mail Preference Service at (212)768-7277. You can also write directly to the companies sending the material to remove your name from their existing lists.

Did You Know...

Americans discard roughly 240 million tires annually, approximately one per person per year. And, since there is no easy way to dispose of them, an estimated 2 to 3 billion used tires are currently stockpiled in the United States.



Kids Keep America Beautiful

Thanks to over 50 fourth graders, the neighborhoods near Farmington Woods Elementary School in Cary, North Carolina, are virtually litter-free and recycling fever is spreading through the town. With the help of two teachers, the students launched a successful recycling and litter prevention program that went on to win a national Keep America Beautiful Award. Their efforts will be acknowledged at the first U.S. Municipal Solid Waste Management Conference this June. The pilot program is being continued in this year's fourth grade and is serving as a model for other schools.

Simple in concept, the program does not require much money to operate, and relies on voluntary participation by students, teachers, and parents. Every week, each student picks up litter in the area, and goes to 10 homes, collecting recyclables from residents. The recyclables are then gathered together and sold to a recycler.

The program has helped raise environmental consciousness in both the school and the community. With the recycling proceeds, last year's class joined environmental organizations, adopted whales and manatees, and purchased classroom supplies. As a result of the class project, the community's attitudes about the problems of solid waste changed from "there's nothing you can do about it" to "there's something we all can do."

THE FIRST UNITED STATES CONFERENCE ON

This conference is for people who make things happen in solid waste management. Local, regional, state and international participants will share their experiences and successes. Major conference topic areas are:

- ◆ Integrated Solid Waste Planning
- ◆ Source Reduction and Reuse
- ◆ Recycling and Composting
- ◆ Combustion
- ◆ Land Disposal
- ◆ Public Involvement and Education
- ◆ Special Wastes

To be a speaker or participant contact: First U.S. Conference on Municipal Solid Waste Management, c/o GRCD, P.O. Box 7219, Silver Spring, MD 20910, 800/456-4723 (Lynda Cook), FAX 301-589-7068.



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