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Apartment Building Recycling A Manual for Apartment Owners and Managers

*Prepared by the
Department of Environmental Protection
Division of Solid Waste Management*

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Introduction

Over the past five years, state and local officials have designed municipal recycling programs that have been directed at residential homeowners or businesses. Recycling coordinators and planners recently have begun to reconsider urban areas and think about how to incorporate apartment building recycling into suburban curbside programs. Significant numbers of people reside in urban areas where apartment buildings outnumber single home residents. In suburban areas, multi-resident dwellings may exist as well. When existing curbside recycling programs do not include apartments, they lose large quantities of potentially recyclable material.

Recycling can lower an apartment building's disposal costs. Before designing and implementing a recycling program in a large apartment building, condominium, or townhouse, apartment building owners and managers need to consider several issues and gather key information. Pertinent ideas and initiatives for setting up an apartment recycling program have been highlighted in this manual. Also included are descriptions of eight apartment recycling programs located in the United States and Canada.

For information regarding large scale municipal apartment recycling, a copy of the *Apartment Building Recycling Manual* may be obtained from the DEP's Division of Solid Waste Management (617) 292-5960. A list of other resources regarding apartment recycling programs have been included at the end of this document.

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Edited by Linda Domizio

Initial Considerations

Building owners or managers should consider the following issues as they commence research and design of an apartment recycling program:

- * *What materials the apartment would recycle*
- * *What companies manage recycling programs in that community*
- * *What method of collection would be used*
- * *Where the storage containers would be placed*
- * *How to motivate and educate the residents to increase participation.*

Researching A Program

Although a recycling program design may be dictated by the company that will collect the material, apartment building owners/managers need to gather general information from several sources to gain an understanding of the options that may be available to them. Consult the Yellow Pages, the Massachusetts Department of Environmental Protection's Division of Solid Waste Management (617) 292-5960 or your local town government for listings of resources such as these:

- * *Private waste management consulting firms*
- * *Local recycling businesses*
- * *Recycling coordinators (state, local government)*
- * *Solid waste haulers in the area*
- * *Massachusetts County cooperative extension offices*
- * *Processing facilities (Material Recovery Facilities)*
- * *Scrap yard dealers*

Designing a Program

The first priority for designing an apartment recycling program is setting up sites for collection of the material both inside and outside the complex. Locations may be determined by building constraints, community program design, or the waste hauler. Apartment buildings generally are not set up with large scale container storage space. The owner/superintendent must look at the complex as a whole to determine space availability for collection containers. Some suggested sites are:

- * *space in each apartment; storage closets on each floor*
- * *parking lots*
- * *grounds, shed space*
- * *basement, storage areas*
- * *laundry room*

Designing A Program *continued*

Owners must determine if they want to design a system where recyclable materials must be kept entirely separated from each other before collection (glass from metal from paper), or a system where glass and metal materials could be mixed together in one container and paper would be separated in another. This decision is usually dictated by the local haulers and/or processing facility. If the program design entails keeping all materials separate from each other, recycling containers can be located in either satellite areas (a container per floor) or central locations. If the program design entails mixing materials together, try to locate collection containers in central locations.

Collection containers do not have to be located at every convenient common area. Several pilot studies undertaken in Fitchburg, Wisconsin showed that the number of final collection points within a complex does not significantly affect the volume of recyclables collected.

Participation rates will be high if the recycling program is incorporated into the habits and daily lives of the residents. In individual apartments, residents can collect and store recyclables under the sink or somewhere out of main traffic areas. Linking the recycling collection system as closely as possible to the garbage collection system will be convenient for apartment residents. Collection locations must be accessible to residents on a 24 hour-a-day basis.

Contamination of refuse with recyclables is a large concern to haulers. Building management should seek to avoid designing a program where recycling bins are looked at as "just one more dumpster". The appearance of collection containers should be different from refuse containers in color and size. If they look the same, they will be mistaken for regular refuse containers.

Characteristics of the apartment community will drive, to some extent, the design of the recycling program. Consider the frequency of tenant turnover. Long term residents will be able to see a program's progress, which can help boost participation rates. With a short term resident situation, continuous education is needed to teach new residents about the program. When residents move in and out, they may take recycling containers with them, so the cost to replace lost containers must be factored into the program.

Ultimately, program compliance is the responsibility of the building owner/manager. They must provide containers, set up collection sites, and educate the residents. Whether recycling is mandatory or voluntary, setting up a recycling program will initially cost money. Keep in mind that the goal of an apartment recycling program is to save money on disposal costs over time. To accomplish this, one must set up a recycling program that works.

Public Education and Implementation

Once the building owners and managers have designed a workable recycling program, it is time to share the need to recycle with the residents. Education should start at least two months before the program actually begins. Flyers should be sent to residents and posted throughout the complex in areas of high visibility such as the laundry room, common areas, and bulletin boards. Information listed should describe the program's purpose as well as guidelines about the program so people know exactly what to expect and what to do. If a tenant newsletter is available, make use of this resource for advertising and general educational purposes.

Education should continue once the program is underway. Residents need feedback on how the program is progressing. Studies have shown that participation rates have increased when residents hear how much material is being collected, if money is being saved on disposal, and general updates on program management.

Building managers can utilize tenants as resources. If particular residents are committed to recycling, involve them in the program by having them be floor coordinators who can offer information and guidance to fellow residents.

Eight Apartment Building Recycling Programs

Listed below are eight successful or pilot apartment building recycling programs located in the United States and Canada. Information acquired by phone interview includes specific programmatic operations, equipment used in collection, tips from recycling coordinators and any problems the program encountered. Program design decisions appear to be determined by apartment building size, layout and stability of the rental population.

Several communities needed to reevaluate program design after encountering problems during implementation. Pilot studies seem to be an invaluable tool to use when considering any apartment recycling program. Problems encountered during a pilot study can be addressed and corrected before beginning the larger program.

Metro Toronto, Canada

Contacts: Kevin Wilye or Russ Nicolson (416) 392-1042

This is a cutting edge program which accepts commingling of recyclables and uses both blue boxes and blue polyethylene bags. Toronto planners designed a program using bags, which were easier for senior citizens to use than cumbersome containers. The bags also are substituted for boxes in buildings where participation rates are low. The blue bags, three to four times larger than grocery bags, are more convenient to carry than plastic boxes and can hang on closet or kitchen door knobs.

Four to five 90 gallon containers are placed in central locations for accepting commingled material. One 3.2 cubic yard back end load bin is used for newspapers. This accommodates up to 100 residential units a week. A satellite system (container per floor) gives better participation rates per building but they have found there is more cooperation from building management with central versus satellite location placement.

Tips from the Toronto planners:

- * Use the media (radio and newspapers) for educational promotion.
- * Get apartment building managers to call you versus you calling them.
- * Work directly with managers to set up building's program.
- * Design for a commingled system. There is less breakage of glass.

Mississauga, Canada

Contact: Diane Van Der Valk (416) 270-8170

Mississauga's apartment building program began in September 1988, four years after the residential curbside program was instituted. The curbside program is now into its sixth year. Mississauga has 110,000 apartment building units, and began designing the program by identifying the largest apartment buildings.

The recycling coordinator waits for apartment building owners or managers to call about the program. A staff member then goes out to help the superintendent set up the program and determine collection areas at the complex. The city also provides all posters and literature pertaining to recycling.

Presently, 185 buildings are recycling which is 25% or 25,000 units. Five apartment buildings use centralized disposal rooms for collection. The remainder use satellite locations on each floor.

Apartment buildings were provided with the following containers:

- * 90 gallon toter containers are used for mixed plastics.
Most Canadian plastic is processed into plastic wood with the plastics processing market located within Mississauga.
- * 32 gallon Rubbermaid garbage cans are used for collection metal and tin cans.
Building management also can use metal mesh top carts with wheels.
- * 20 gallon cans are used for glass collection.
Two color separation is required.

The city uses Labrie manual loading trucks for apartment buildings less than 75 units and hydraulic Labrie trucks for buildings with greater than 75 units.

Etobicoke, Canada

Contact: *Henry Mohlman (416) 394-8359*

This program is a voluntary one. For each apartment building location, the recycling coordinator meets with the superintendent, condo board member, or building owner. One or more collection access points in the building are identified. Floor space is allocated for storage bins that are nine feet square and four feet high. Apartment buildings need five or six 90 gallon containers per 100 units (OTTO containers used). The City of Etobicoke bought and supplied 90 gallon containers to apartments in the city. Residents transport recyclables to a central collection point and sort materials into bins and containers. The superintendent or building owner must allow 24 hour access to all garbage sort rooms. Commingling of recyclables is used for apartment building programs because their pilot study found this form of collection reduced breakage.

Etobicoke's waste hauler uses Labrie Trucks with 90 gallon lift wheel carts. One truck has the ability to pick up 30 separate apartment sites at an average size of 50-100 units per building.

Tips from the Etobicoke planners:

- * If a program is a voluntary one, the state or local agency running the program should advertise for building participation and work with apartment managers that respond.
- * Ongoing public education is essential to minimize vectors, especially when containers are stored inside dwellings until pick up day.
- * A full time staff person should be designated as the apartment building coordinator who could set up the program on a building by building basis.

Problems identified in the Etobicoke program:

- * Some apartment buildings have refused to participate in the program unless it becomes mandatory.
- * Participation rates at low income apartment buildings are 10% or less.

Rhode Island

Contacts: Susan Sklar or Ed Connolly (401) 831-4440

The curbside program has been in operation for two years with a pilot study still underway for apartment buildings. The pilot study began six months after the curbside program began. There are an estimated 80,000 apartment units in the state. Most apartment buildings in Rhode Island do not receive municipal services for waste disposal so the state created an incentive program to attract private hauler participation.

The State purchased 10,000 six gallon round pails for apartment building units where a hauler is able to set up a recycling pick up program. The apartment building owners must purchase the 95 gallon recycling containers necessary for placement in common areas. Private haulers are allowed to bring recycled material to the Rhode Island Materials Recovery Facility (MRF) at a special tip fee of \$13 per ton.

Problems encountered in the Rhode Island program:

- There is no enforcement procedures for non-compliance by apartment buildings.
- The state only purchased 10,000 pails. Once these run out, there is no money to purchase additional equipment.
- Rhode Island law requires apartment buildings to file a work plan with their Department of Environmental Management. There is some feeling among program coordinators that this may be disincentive to join the program.
- Most participation is through haulers who take advantage of obtaining the free equipment.
- Due to program design, there is no way of knowing how much recycled material is picked up by the hauler through private contracts and how much is picked up through municipal contracts. This becomes an issue when the trucks come into the MRF. Private haulers deposit all recyclables for free as municipal recycled waste. The state therefore, loses the \$13 tip fee per ton.

Brookline, Massachusetts

Contacts: Tom DeMaio, (617) 730-2156, Director of Highway and Sanitation

Roberta Shnore (617) 734-2713, Consultant

Suzanne Bryant (617) 739-1083, Coordinator, curbside program

Brookline initiated a mandatory curbside recycling program for all residential homes on October 1, 1990. Apartment buildings with fifteen units or less are included in the residential recycling program and are required to recycle glass, newspaper, metal and plastic. Brookline has 210 apartment buildings of 16 units or more. On November 15, 1990, Brookline instituted a mandatory apartment building newspaper recycling program for buildings that have municipal pickup. Before implementing a full scale mandatory apartment building recycling program on July 1, 1991, the town will run a six month pilot program in 2-3 apartment buildings. While the pilot program is in place, recyclable materials will be picked up from any apartment building in Brookline that voluntarily complies.

Brookline's waste hauler uses two manual side loading trucks. The company provided the twelve gallon blue curbside containers used in the residential recycling program. They are delivering glass, plastics, and metals to the Jet-A-Way mini-Materials Recovery Facility (MRF) in Roxbury, MA.

Problems identified in the Brookline program:

- * The hauler does not have hydraulic lifts on their trucks to lift the 90-95 gallon containers the town of Brookline would like to see incorporated into local apartment building programs.
- * Brookline would require building owners to provide the 90-95 gallon recycling containers because the hauler is not providing these.
- * Presently, all residents pay a \$150 per year for municipal waste disposal services. Building owners pass this fee on to each rental unit as a per unit charge. Town officials are considering instituting a disposal fee based on use versus a set fee. The "disposal use" fee would be based on the number of bags set out per week versus a flat yearly fee.

New York City

Contact: John Ruston, Environmental Defense Fund (212) 505-21001

The program for New York City (NYC) was initially designed and organized by the Environmental Action Coalition (EAC) in 1985-86 to prove to the City that urban recycling was possible. EAC worked directly with building superintendents. In 1990, the NYC Department of Public Works (DPW) expanded the program to include additional city neighborhoods. New York City handed out 32 gallon containers to apartment units for its city-wide curbside collection program. Commingled material is placed on the curb in 3 cubic yard containers.

Problems identified in the New York program:

- The NYC Department of Public Works has not provided adequate educational material to inform apartment dwellers when the program would begin, the type of material being recycled, and the condition recycled material should be in (cleaned, etc.) before they were placed in recycling bins.
- The building management was not instructed to provide 24 hour access to the recycling bins for residents.

Other Communities With Apartment Recycling Programs

Bergen County, New Jersey

Contact: Richard Wiernar, Bergen County Utility, recycling coordinator (201) 641-2552

Ottawa, Canada

Contact: Anna Bellanger, Recycling Coordinator, (416) 564-4486

Duncan Bury, Manager of Solid Waste Diversion, Environmental Services Dept., (613) 560-6050.

Resources

Resource Integration Systems

One Salmon Brook St.
Granby, CT 06035
Suzanne Cable (203) 653-5035

Biocycle (215) 967-4135

1. "Recycling in Multifamily Units", by Sherrie Gruder-Adams, Biocycle, August 1990. Prior to launching a mandatory program for apartment dwellers, a pilot project provides data on effectiveness of well-placed containers, bag distribution and outreach.
2. "Practical Approaches to Multifamily Recycling", by Mary TKach and Patricia Schoenecker, Biocycle, October 1990. An overview of the Saint Paul, Minnesota's multifamily recycling program implemented by the St. Paul Neighborhood Energy Consortium (NEC), a nonprofit, grassroots coalition of neighborhoods.

Resource Recycling (503) 227-1319 Meg Lynch

1. "An Experimental Apartment Recycling Program", by Jennifer Hyde, Resource Recycling, June 1990. A county in Maryland set up a multi-family recycling collection program with a pilot study that tests several variations.
2. "Commingled Recycling Tested in Apartments", by Craig Benton and Rebecca Fox, Resource Recycling, June 1990. A Puget Sound community tested commingled collection for multi-family housing complexes.
3. "Multi-Family Residential Recycling: Testing Collection Systems", by Kim Zarillo, Resource Recycling, September 1990.

Bergan County Apartment Recycling Manual, Bergan County Utilities Authority, 1988.
Foot of Mehrhof Rd.
Little Ferry, N.J. 07643
(201) 641-2552

Mississauga's Apartment Recycling Program, by Diane Van De Valk.
Public Works Department
City of Mississauga
300 City Centre Drive
Mississauga, Ontario L5B 3C1
(416) 896-5000

"Recycling: Ideas and Initiatives for Apartment Communities" Video.
Wisconsin Department of Natural Resources
P.O. Box 7921, Madison, WI 53707-7921

