

**J**OE Geist follows the scrap paper markets. A property manager at Commerce Square, twin office towers in downtown Philadelphia, Geist views the contents of the complex's trash cans — which are mostly paper — as a commodity. When scrap prices go up in value, as they did in 1994, he was able to negotiate a 50 percent decrease in refuse collection fees, saving \$38,000 a year.

His refuse/recycling contractor currently sorts out contaminants and bales the rest — 60 to 70 percent of the total — as mixed paper, which at the start of November was commanding \$75/ton. “When the price triples, I want to share in those revenues, or at least reduce the overall expenditures for waste management,” Geist says. Commerce Square is instituting changes that will boost the complex's recovery rate to 80 percent or more, he adds. The 44 tenants of the two million square foot office complex have been asked to use three colors of bags, one for paper, one for bottles and cans, and the third for “wet” waste (food scraps and soiled paper). If the system works as designed, it could lead to further waste management cost savings, Geist believes.

Although it is unusual for property managers of office buildings to follow scrap paper markets, Geist exemplifies a shift in attitude that Philadelphia officials hope will catch on throughout the city. Philadelphia recently implemented a mandatory recycling ordinance for all properties served by private refuse haulers. A similar ordinance is scheduled to go into effect January 1, 1995, in Chicago. These ordinances come at a good time, because the value of scrap materials is at a high point, shortening the payback period for start-up expenditures for recycling. The potential impact on collection is significant, particularly if property managers try to maximize the economic benefits.

In Philadelphia, the ordinance regulates a private sector waste stream of approximately one million tons annually, according to David Biddle, the city's commercial recycling coordinator. About 35,000 property owners are affected, with 100,000 buildings housing 600,000 workers and 125,000 multifamily dwelling units. Chicago's law covers an estimated three million tons of MSW/year generated by businesses and multifamily units.

#### THE NEW YORK EXPERIENCE

One way to gauge the impact of the laws in Chicago and Philadelphia is to look at New York City. The city's commercial sector



has been required to recycle certain materials (the list varies according to business sector) since September, 1993. Richard Fuller, president of Great Forest Inc., has a first hand view of how the city has fared under the law. Great Forest performs waste stream analyses and explores opportunities for sorting and recycling. The company recently opened offices in Philadelphia and Chicago.

In New York, where waste hauling fees are as high as \$250/ton, most of Great Forest's clients have cut their



*New ordinances in Philadelphia and Chicago require businesses and multifamily dwellings served by private haulers to implement recycling programs.*

**Commercial sector recycling activity is heating up in downtown Philadelphia, as more haulers are making regular pickups of separated materials.**

waste hauling charges by 50 percent, Fuller says. Two “huge” property owners are saving a million dollars annually, he claims. “We’re using the fact that the law is going into effect to wake the property managers up and say ‘hey, guys, you can do a better job at managing your waste.’ We keep one eye on meeting the regulations, and the other on what is most cost-effective.”

Aside from Great Forest's direct experiences with implementing recycling in 200-plus office towers and 35 hotels, Fuller sees evidence of an increase in recovery citywide “that is quite enormous.” The biggest indicator is the increased recycling capacity at a half dozen trash transfer stations throughout New York City. “Before they couldn't be bothered with recycling and they treated the material as trash, and now they are managing it as recyclables,” says Fuller. A key part of the process has been

educating property managers, who are starting to realize that recycling can be less expensive than disposal, and haulers, who are recognizing recycling possibilities. Overall, he believes there is widespread compliance with New York's ordinance, at least among medium and large businesses. The small shops, he adds, generally have not implemented recycling programs, and will not until the city begins to seriously enforce the law.

#### PHILADELPHIA'S LAW

Philadelphia is requiring that every commercial/multifamily property owner submit a recycling plan to the city. So far, of the 35,000 affected owners, 6,000 plans have been submitted — a measure of how much work is ahead to achieve compliance with the law. About \$500,000 are earmarked for Philadelphia's commercial recycling program in the first year, including enforcement, education and technical assistance. Enforcement is not scheduled to begin in earnest until late spring, 1995. Three or four staff members will be assigned enforcement duties, Biddle says. The city plans to implement a random inspection system, putting all types of firms on notice that their recycling program could be examined.

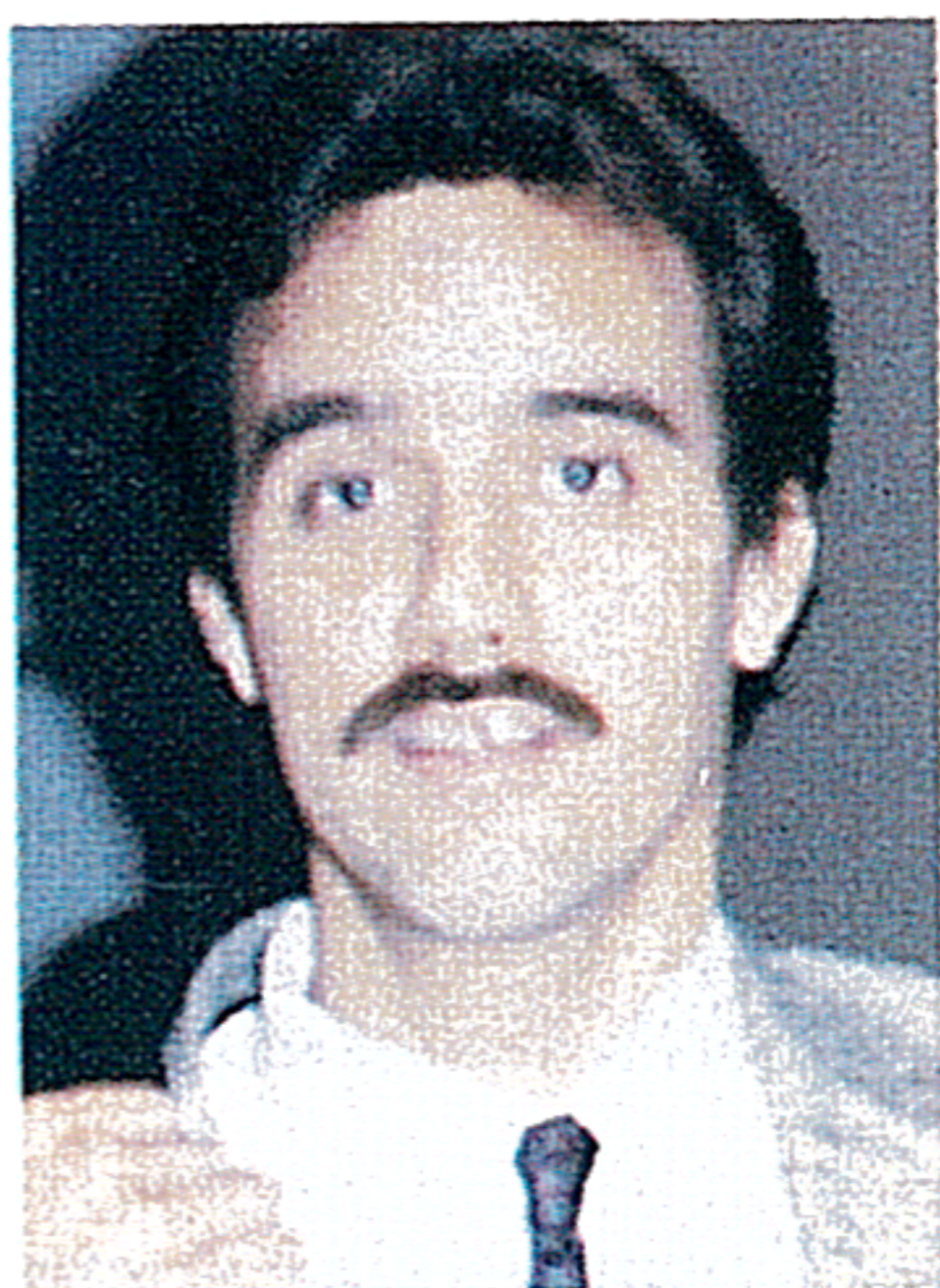
The Philadelphia Recycling Office has hired outside contractors to help with program implementation. Roy F. Weston Inc. will develop a database from the recycling plans submitted to the city. Officials will be able to determine what property owners have not submitted plans, and put them on notice. Among those that submit plans, the city will get an idea of what sectors should be targeted for public education. "If 93 percent of the plans from restaurants show a lack of understanding of the waste stream, then I will need to go back to the industry and do some education," Biddle says.

Collaborations Inc. has been hired to do media outreach and education. A subcontractor to Collaborations is the Pennsylvania Resources Council, which is staffing a recycling hotline and operating a facsimile line to send out information on the ordinance and available recycling contractors. Finally, Great Forest has been hired to implement programs in all of the city-owned properties — including an airport, convention center, sports complex, parks, city housing, libraries and municipal offices.

#### IMPLEMENTATION TIME FRAME

Most haulers and recyclers in Philadelphia agree that it is going to take a long time to achieve compliance. "There are a lot of facility managers out there who are still wondering what to do about the new law," says Lee Cornell, of Browning-Ferris Industries (BFI). He estimates that it will take a year

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Businesses can "sign a multiyear contract for trash and recycling and reduce overall waste disposal costs," says David Biddle, Philadelphia commercial recycling coordinator.

to 18 months before a substantial number of the buildings are in compliance.

BFI, which operates a materials recovery facility (MRF) about five miles outside of Philadelphia in King of Prussia, is an example of a company that is using this window of opportunity to seek new recycling customers. Some haulers and recyclers argue that most of what is economically recoverable from the commercial sector is already being captured, but that has not been BFI's experience in Philadelphia. The company is working with businesses, both existing and new accounts, to set up recycling programs. In many cases, collection programs are already in place for corrugated cardboard and aluminum cans, but lacking for other materials. "Some locations are missing office paper recovery entirely," says Cornell. "We're able to put a bin at each desk and add a centralized container and get very good recovery from these generators."

Two Philadelphia firms that are seeking new recycling clients are AAA Disposal and AAA Recycling. The former handles hauling operations, and the latter (a sister company) offers recycling services. Both operate out of the Philadelphia Recycling & Transfer Station in the southwest section of the city. AAA (referring to both companies) services Geist's building, Commerce Square, in addition to 50 or 60 other high rises. The two companies have a total of 1,500 clients, all of which are being brought into compliance with the ordinance, says Judith Ward, president of AAA Recycling.

AAA is an example of the aggressive competition that is starting to emerge in Philadelphia, which Biddle credits both to the recycling ordinance and to the improved markets for recovered materials. None of the company's clients, are receiving a rate hike for new recycling programs. The collection schedule is twice a week for corrugated, six times a week for food scraps (which go to pig farmers) and daily for trash. Many of AAA's large office clients are getting substantial rate reductions, Ward says. "I don't want to lose the material, particularly from office buildings." The company asks that office buildings separate out wet waste, which is about 10 percent of their MSW, and the rest is processed at the recycling facility.

AAA currently processes recyclables in an old lumber mill that is two football fields long, where two picking lines process and bale about 200 tons/day corrugated, newsprint and office paper. The company has built a new, adjacent processing plant with the capacity to handle 150 to 200 tons/day of mixed office paper. The new line is scheduled to be operational shortly, and AAA is finding clients to supply throughput.

The new plant will have better lighting and enable more materials to be pulled from mixed office waste for recycling — such as glass, steel, plastic and corrugated. It will feature an initial sorting section, a large trommel to remove contaminants, and a final sort. The line is designed to produce a

grade of sorted office pack that is selling for \$150/ton, about double the price AAA currently receives for its office mix. Even if markets decline, the higher grade product always will have a market, Ward says.

The eight-year old hauling company has been expanding its recycling operations for the last three years. Dropping disposal tipping fees nearly put the company out of business in the early 1990s, and recycling seemed like the only option, says Ward. A little bit of luck, in the form of improved markets for recycled paper, helped strengthen the bottom line. "Recycling saved us," she says. "We had no way of knowing that the markets would improve as much as they have. We were in the right place at the right time." The two companies employ about 120 people, including 45 processing recyclables. An additional 20 people will be hired for the new line.

### MAKING IT LEGAL

Chicago is planning a less aggressive approach to enforcement than Philadelphia. Property managers, for example, are supposed to draw up a recycling plan, but it does not have to be submitted to the city. "The city reserves the right to inspect the plans, but this will be driven by complaints more than anything," says Ken Davis, a city spokesman. "For many of the buildings this will not be much of a problem, because there is tremendous pressure by tenants to have recycling programs. All this does is make it legal." Chicago is asking that at least two materials be sorted for recycling in the first year, with businesses given the choice of adding a third material or adopting source reduction measures in 1996.

Although numerous businesses and multifamily buildings are recycling, many property managers are taking a wait and see approach. "My phone is not ringing off the hook with people who want to set up recycling programs," says Michael Finn, vice president of Recycling Services Inc., a hauler and processor of recyclables. "People are generally aware of the ordinance and looking at what they need to do to comply. Many of the small generators are waiting to see how the market will respond, and what options are available."

Recycling Services, a 10-year-old company, operates a 40,000 square foot recycling facility with two sorting lines for paper. Finn has seen a steady increase in commercial sector recycling in the city in recent years. More material is now sorted for recycling at refuse transfer stations, which has resulted in a 20 to 30 percent drop in charges for waste hauling in large office buildings, he says. "Recycling is definitely on the upswing, but it is difficult to put a number on it."

Similar to New York and Philadelphia, Chicago finds the major challenge will be getting recycling programs in place at smaller businesses where, traditionally, it did not pay for recyclers to collect materials. According to Bill Abolt, the director of Chicago's commercial recycling program, "in the



**Recycling Services, a 10-year-old Chicago company, is gearing up its collection of recyclables, particularly paper.**

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last few months, the recycling industry has been creaming the easy accounts from the top, and now they are doing some hard thinking about how to provide the services to other customers."

As recovered paper prices go up, however, it becomes more attractive to collect smaller amounts of materials and bring them to market, Finn says. Recycling Services is working with haulers to set up collection routes for smaller generators — perhaps 50 customers per route. "We're currently targeting small manufacturers, small offices and retailers to set up programs," he notes.

In Chicago, where there are 600,000 apartments and condominiums, getting that sector on line is a significant challenge for the haulers, says Abolt. Many are opting for the simplest program, which is to offer blue bag recycling, cocollecting materials from multifamily units. That will dovetail with the city's blue bag curbside program, which is scheduled to go into effect later in 1995. Other haulers are installing automated chute systems for recycling, or dropoff boxes outside buildings.

For recycling officials, the mandatory ordinances couldn't have come at a better time in terms of markets. Although there still might be some resistance on the part of the haulers and building managers, the current prices for recycled paper make the transition easier, because the possibility of savings are real. Biddle counsels property managers to use the opportunity to lock in savings for several years. "I tell businesses that if they can make money by selling materials, fine," he says. "But the best thing they can do is to sign a multiyear contract for trash and recycling and try to reduce overall waste disposal costs." Haulers are waking up to the improved economics of recovering recyclables, as well, says Biddle. "When they start crunching the numbers, they are realizing their profit margins are going up." — R.S. ■