

# Waste Reduction and Recycling

## A Report on the Wyndham Anatole Hotel

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Presented by  
The  
Texas  
Natural  
Resource  
Conservation  
Commission  
January 1998



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## EXECUTIVE SUMMARY

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Over the past few years, solid waste disposal costs have more than tripled. As these costs have increased, alternative waste management strategies like recycling and source reduction have become more attractive, particularly in the private sector where the resulting cost savings improve the bottom line. In addition, companies that publicly demonstrate a commitment to the environment enjoy increased approval from their customers, prestige in their communities, and productivity in their employees.

The considerable number of properties owned and/or managed by Wyndham Hotels represent important opportunities for substantial waste reduction, and for providing crucial leadership for the hotel industry by modeling successful waste reduction and recycling practices.

The Texas Natural Resource Conservation Commission (TNRCC) conducted a waste audit of the Wyndham Anatole Hotel in Dallas to answer a number of questions, including:

- What waste materials are being generated in each department of the hotel?
- How are waste materials being handled currently from the point of generation to disposal or recycling?
- What procedures are working well, and what procedures need improving?
- What markets are available for the recyclable materials?
- What are the alternatives for handling waste materials?
- What savings in disposal costs might be realized and how?

Each of these questions was answered by investigating operations and auditing waste. This report tells management which hotel practices are effective and recommends others that are economically and environmentally sound. While this summary provides an overview of the entire report, each of the following topics will be addressed fully in the report starting on page 1.

### CHARACTERIZATION OF WASTE STREAM

The hotel's waste stream is made up of a number of materials, but three primary materials make up the bulk of the total waste stream. Paper is about 40% of the total, food waste is approximately 30%, and organics from grounds maintenance is nearly 25%. Food waste and paper are generated at a fairly steady flow throughout the year, but organics generation increases from November to April during the rapid growth cycle of winter rye grass, and once yearly when trees are trimmed.

The primary recommendation for improvement of an existing procedure is in the area of office paper recycling. We discovered that few employees knew that a recycling program was in place, and deskside trash containers were filled almost exclusively with recyclable paper rather than true waste. Education will be the key to diverting this paper to recycling so the hotel can experience the associated savings. Total savings through reduced disposal costs will depend on the education of employees, the degree of management support, and management commitment to the goals of the program.

## **CONCLUSIONS**

Recyclable materials are not waste, they're commodities, and like any commodity, prices rise and fall based on supply and demand. An over saturated market almost three years ago caused demand for paper to fall, but many recycling professionals believe prices were artificially inflated during that time anyway. Prices have remained relatively stable for the last eighteen months for mixed office paper at \$10-\$30 per ton, and many experts expect prices to remain stable or rise slightly.

The fact is, no waste reduction and recycling program should focus on income from recyclables, but rather on cost savings from diverting materials from disposal. Fortunately, the Dallas area offers steady markets for paper and a number of other materials being generated at the Anatole, including corrugated cardboard, aluminum, steel cans, other scrap metals, and organics.

The recommendations contained in the following report, if implemented and sustained properly, will bring real cost savings to the Wyndham Anatole Hotel. We estimate that somewhere between 75-90 percent of the hotel's total waste stream can be diverted from disposal to some form of recycling or reuse, cutting disposal expenses by more than half. The key factor to experiencing substantial savings will be your willingness to support the successful implementation of a comprehensive waste reduction and recycling program

Above and beyond being good for the bottom line and smart for the environment, we believe that implementation of these recommendations could bring the hotel into a leadership position in the industry. Environmental stewardship is on the upswing as a global issue, and travelers will increasingly demand sound environmental practices. Hotels on the leading edge of that movement will benefit from increases in operational efficiencies, improvements to their bottom lines, and enhancement of their public images. We'd like to see Wyndham step forward and take the lead in the upscale hotel marketplace.

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The Wyndham Anatole is currently generating approximately 180,000 to 290,000 pounds of food waste each year and 100,000 pounds of grass clippings (though much of this is left on the grounds). Annual tree trimmings fill 15-20 open top containers that each hold 40 cubic yards of material. Lastly, based on consumption, the hotel is generating as much as 125,000 pounds of office paper waste each year from hotel operations. The weight of waste office paper generated by the various tenants is difficult to quantify. An indeterminate amount of cardboard, bathroom paper waste, and food-related and packaging paper waste is being generated. Add to that newspapers and the number will rise substantially.

### **RECOVERY AND REDUCTION**

Office paper and cardboard are probably the easiest materials to manage, in terms of both waste reduction and recycling. Reducing paper consumption can be a simple matter of educating employees to make better use of their paper resources, and recycling the remainder is fairly straightforward. Collection of these two items is uncomplicated, markets are steady, and the material's quality and quantity are high.

While more sophisticated strategies may be required for the other two materials--food waste and yard trimmings (organics), the potential for reducing the cost of disposal is tremendous. Some recommendations for handling food waste and organics may even provide a unique vehicle for enhanced customer and community relations.

### **CURRENT PRACTICES**

Overall, the waste audit team was impressed with the current operations at the Wyndham Anatole. Obvious thought has been given to streamlining and reducing consumption, the Earth Smart floor indicates a proactive approach to environmental issues, the receiving dock has implemented a successful take-back program for pallets, and almost every department had some type of waste reduction practice already in place. The management of the hotel should be applauded for its excellent attention to details.

### **POSSIBLE IMPROVEMENTS**

Expansion of the Earth Smart rooms could bring substantial savings to the hotel through reduced labor costs and decreased laundry costs. We also believe that the Earth Smart rooms represent an important and timely marketing message that will be appreciated now and fully expected in the future.

## **WASTE AUDIT REPORT AND RECOMMENDATIONS**

### **HOUSEKEEPING:**

Overall, the housekeeping staff appears to be successfully addressing a great many efficiency and environmental opportunities. There is very little use of aerosols which can be as much as 70-80% propellant, and the chemical system allows the staff to minimize storage space needs while controlling the flow of chemicals.

- We suggest that you check the recommended formulas for the hotel's cleaning needs and adjust formulas to the lowest possible level of chemicals. The vendor's job is to sell as much product as possible, but effective cleaning might still be achieved using a lower ratio of noxious chemicals.

### **Earth Smart Floor**

We found the dispensers in the rooms to be very attractive, and, frankly, more upscale than the bottles of bath gel and glycerine soaps you use in the VIP rooms. The cards explaining your program are attractive and easy to understand. The addition of an air purifier is a nice touch, and the recycling bin was easily accessible. All in all, the Earth Smart rooms represent a job well done.

- Your care for the "spaceship Earth" is a marketing tool that you are missing out on. Increasingly, environmentalism is a banner that corporations are flying proudly.
- You might want to begin your marketing strategies by conducting some simple market research. You could choose two reservationists per shift to ask callers if they would like to choose an environmental friendly room. Have the reservationists record or jot down the responses they receive for two weeks. What is the public telling you about their interest in environmentally sound practices?

Your director of housekeeping estimated that only about 30% of your guests staying in the Earth Smart rooms participated in the towels and sheets program. She may consider that low, but imagine the savings you might enjoy if laundry costs for the entire hotel experienced a 30% reduction and the labor savings if maids could eliminate changing linens in 30% of the rooms.

- In addition to studying potential savings in the laundry, we recommend a time and motion study on the Earth Smart rooms to determine actual savings in labor costs.
- Begin studying ways to separate trash from recyclables on the cart. A guest may

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- We applaud the hotel for the use of concentrated chemicals for cleaning. The director of purchasing stated that the chemical system was faster, safer and easier to use. If your dispensers will allow you to adjust the amount of concentrate dispensed, we recommend that you experiment with smaller amounts to see if they may not be just as effective as the prescribed amounts. Very often, half as much will get the job done.

We were informed that the hotel plans to deliver a morning newspaper to every occupied room in the hotel. While finding a paper at your door is a thoughtful amenity, a full house will generate over 1,600 newspapers for the hotel to disposal of or divert to recycling. Because you have a policy that room attendants cannot reach into a trash can, which we believe is where the majority will end up, you will likely increase your disposal tonnages significantly.

- We understand that this amenity is already promised in your marketing materials, necessitating continuance of the amenity. But at your next printing of those materials, we feel you might consider changing this practice.
- It is our opinion, through our business and personal travel, that most guests don't have time to read a paper anyway. There are meetings to make and conference sessions to attend. But for those who want and expect a paper, why not use an attractive door hanger (sized and/or shaped differently from the Do Not Disturb-type hangers) to serve as a request for a paper the next morning. Another way to supply that service to only those guests who really want it is to ask at the time of check-in if they'd like one, code it in their portfolio, and supply staff with a list each morning for delivery.

### **Public areas**

All public areas were clean and well maintained (as were all back-of-the-house areas--remarkably so). Some of the toilet paper rolls that were changed out too soon came from the public areas, however.

- We recommend that you investigate public area recycling bins, attractive and clearly marked. As a conference and convention hotel, you will be asked more and more often if you provide recycling services for meetings and conferences. Be prepared to say, "Certainly."

### **Waste Sorts**

We conducted waste sorts on bags of trash coming from three different areas of the housekeeping responsibility. Sample bags of typical trash were brought to housekeeping from Tower rooms, Atrium rooms and public areas. We estimated their weight, emptied out the contents, separated the trash into broad categories, recorded approximate percentages and listed what we found. Here are the results:

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notice that you are combining waste and recyclables and become incensed. Don't think this won't happen. Property managers in Trammell Crow office towers hear it from tenants quite often.

- When you do expand your Earth Smart rooms, consider the ProHost carts, which would conceal everything on the cart and can be adapted to accommodate recycling.
- We recommend you choose a name brand soap and shampoo for the dispensers and somehow label or advertise it as such. (I personally found the liquid hand soap to have an unpleasant, medicinal scent.) Then we recommend that you stay ever mindful of the fact that you will never please everyone. Fragrances are much too subjective a topic.
- As much as possible, assign the same room attendants to the Earth Smart floor and train them well. We were offered a bar of soap when we noted that a soap dispenser was empty.

### **Guest Rooms**

In housekeeping, approximately half of your staff are long-term employees. The other half, the half that turns over completely each year, creates a challenge for the Anatole, as it does for most hotels. We recommend that you train, train and re-train to keep staff aware of your environmental policies and practices.

An amazing number of resources leave the hotel each day as waste. We found a significant amount of toilet paper in the trash. Toilet paper rolls were being replaced long before it was necessary. Often there was as much as half a roll being discarded.

Additionally, you are currently purchasing 260,000 little plastic bottles a year for shampoo, lotion, and shower gel. Each of these items gets used once or twice and still contains a good bit of product. But bottles that don't go home with guests, end up in the trash can, and almost all of your bar soap as well. There are alternatives to little plastic bottles and to disposing of the soaps.

- We recommend expanding the hotel's use of dispensers in the guest rooms. With the right brand, the right dispenser and the right accompanying message, the change can be seen as another example of doing things "The right way. The Wyndham way."
- We recommend that you be creative in finding ways to encourage room attendants to feel ownership for the recycling program.
- Discarded shampoos, lotions, bar soaps and toilet paper can be donated to women's shelters or homeless shelters. This could be a project of the housekeeping staff. The room attendants could feel they are doing something for others.

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- would eliminate the cost of purchasing paper placemats.
- Some hotels use unacceptable tablecloths to make kitchen aprons.
- If we could think of a way to keep guests from stealing your towels, we'd all be rich.

As in any hotel, the laundry operation is a substantial expense. The price tag reported to the team for washing sheets and towels last year was \$662,476, including water, chemicals and salaries. If the cost is divided equally by 1620 rooms, the hotel spent \$408.94 per room to keep towels and linens changed and cleaned, or \$1.12 per day. Remembering the director of housekeeping's comment that only about 30% of the Earth Smart rooms participate in the sheets and towels re-use program and assuming 100% annual occupancy with an average stay of two nights, you can make some very loose projections.

- The current Earth Smart floor with approximately 9 rooms participating (30% of 30 rooms) would generate half as much need for changing and laundering towels and sheets--an annual laundry and labor savings of approximately \$1,835.  
(9 rooms x \$1.12 per day x 364 days per year x  $\frac{1}{2}$  as many laundry days = \$1,834.56)
- Under the same scenario, ten Earth Smart floors operating at a 30 percent participation rate would save approximately \$18,346 annually.
- If the entire hotel converted to Earth Smart rooms at a 30 percent participation rate, over \$99,000 could be saved each year on laundry.
- Consider the possible savings if the participation rate were 40, 50, or 60 percent.

Other recommendations:

- When you receive shipments of new linens and towels, train staff to remove the plastic before taking the cardboard box to the recycling compactor. The plastic can be included in the compactor; but separation is preferable for the highest dollar value of your recyclable. Also, train staff to break down the boxes, store them on a flat dolly, and wait until the pile is high before taking the boxes to the recycling compactor. We observed multiple trips being made with whole boxes when flattened boxes would have required fewer trips.
- Check to see if the amount of laundry chemicals being dispersed can be controlled on your system. Often, the vendor is suggesting much more than is necessary. Some hotels have been able to reduce the recommended amounts by as much as three quarters.

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### Waste Sort - Tower Rooms

Paper products	45%
Food related waste	25%
Bathroom waste	20%
Other	5%
Approx. weight	23 lbs.

### Also found:

*1 Coffee maker  
1 pillow case  
1 bar key  
2 room keys*

### Waste Sort - Atrium Rooms

Paper products	40%
Food related waste	30%
Bathroom waste	25%
Other	5%
Approx. weight	20 lbs.

### Also found:

*2 bar keys  
1 room key*

### Waste Sort - Public Area

Paper products	45%
Food related waste	40%
Bathroom/Cleaning	10%
Other	5%
Approx. weight	15 lbs

### Also found:

*1 fork  
1 pillow case  
1 cup*

We had requested a trash bag from the Earth Smart floor in the Tower, but what we received probably did not come from that floor as it contained soaps, shampoo bottles, etc. While we can only speculate about the possibilities, we predict the difference in the volume of waste coming from Earth Smart rooms would only be slightly lower. However, a large percentage of the waste paper generated in guest rooms would be separated at the source and diverted to recycling--a cheaper way to handle the materials. And increasing the number of Earth Smart rooms would likely bring a significant savings in labor and laundry costs due to the re-use of sheets and towels.

## **LAUNDRY**

The Anatole is doing a good job with “reuse” of items from the laundry. Not only are bedspreads donated to charity (150 were donated in March ‘97), but each year 6,000-7,000 torn sheets are donated as well. Approximately 5,000 towels need replacing each month because of stains or tears, with 25% used as rags within the hotel and 75% being “walk offs.”

Other considerations of re-use of linens might include:

- Use old bedspreads to make hot pads, urn covers, silver service covers, etc. Only a few bedspreads would be needed, and the rest could continue to go to local shelters or other charitable operations.
- Investigate cost of replacing paper placemats on room service trays with reusable linens. The linen placemats could be made from tablecloths that have a small stain or tear. The tray would be a little more elegant, less paper would be disposed, and it

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- There may exist a number of entrepreneurs in the Dallas area who have an on-site wood chipping service. Chipped pallets make excellent mulch to retain moisture and reduce weed growth around trees.

## **PURCHASING**

We were particularly interested in finding out how many recycled-content products the hotel is currently purchasing, and were somewhat disappointed in what we found. Aside from recycled-content toilet paper and hand towels, the only other recycled-content purchases were in copier paper, and only the green paper, at that. Recycled-content equipment, supplies and consumable commodities now compete successfully in the marketplace, meeting or exceeding the performance specifications of their virgin-content counterparts, at equal or lower costs. Likewise, consumers' attitudes toward these products have steadily evolved from skepticism to acceptance to preference. To keep pace with these trends, Office Depot has a 50-page catalog featuring recycled office products exclusively. Carpeting and construction materials are increasingly available in recycled content, and old scrap tires are finding new life in a number of innovative products.

But managers will have to become more proactive in their purchases. The laws of supply and demand are at work in recycled product markets, like any other. Unless we purchase the products manufactured from the materials we're collecting, recycling becomes a dead end. Information on how to start and sustain a comprehensive Buy Recycled program will be provided during the training phase of this project.

In the meantime, the following is a list of the types of recycled-content products that can be found in today's marketplace.

### **Office Products:**

writing paper  
copier paper  
computer paper  
post-it notes  
labels  
adding machine rolls  
envelopes

file folders  
hanging files  
notebooks  
three-ring binders  
clipboards  
desk accessories  
shelves

erasable boards  
pens and pencils  
rulers  
recycling bins  
waste containers  
toner cartridges  
computer disks

## **LOADING DOCKS**

### **Food Service Dock**

This was a very smooth and impressive operation. We weren't on the dock when the deliveries were made, but the team observed an excellent system for receiving, storing and handling supplies for the various food operations.

We were particularly pleased with what we call "Pallet Control." As we travel around the state, one of the most troublesome materials we hear about are pallets. The hotel's system of requiring or allowing (depending on your point of view) suppliers to take an equal number of pallets to those they are delivering keeps your pallets under control. We have touted your system to other businesses in Texas.

- We recommend that you consider signage for the food dock area that clearly states your policy--Five Pallets IN = Five Pallets OUT! This will make sure the policy is known by all incoming drivers even when hotel staff is not available to enforce.
- We understand that in the area of produce and certain other foods, the balance of power sometimes lies in the vendors' hands. Nonetheless, we recommend that you be proactive when dealing with suppliers to reduce the amount of waste they bring into your establishment. Where possible, request or require that vendors reduce their packaging. For instance, instead of ordering items in six 100-count boxes, ask the supplier if he carries that item in one 600-count box. Remember, YOU have to pay for the disposal of the boxes.

### **Exhibitor Dock**

Again, this dock seemed well-run, but we did not observe a conference or trade show in progress. However, having been told that the hotel had just disposed of 30 pallets left by exhibitors the week before, we were surprised to hear from an employee that the hotel "always needs some more pallets." At any rate, we observed a number of good hardwood pallets, but the majority were soft woods and poorly built.

- Investigate the possibility of charging the conference for any pallets left behind. If conference planners know of this policy beforehand, they will be more conscientious in reminding exhibitors not to leave them behind for the hotel to deal with. The conference planners may even be able to pass the charge through to the exhibitor.
- Train dock personnel in the policy on pallets and how to explain the policy to exhibitors.
- Again, appropriate signage would be beneficial in this area as well. Be sure to include a description of fees charged for leaving pallets on the hotel's property.

## FOOD AND BEVERAGE

### Food Waste

As we toured the main kitchen, banquet kitchen, pastry kitchen, butcher shop, and the Veranda, La Esquina and Nana Grill kitchens, it became obvious that the second largest volume of waste material for the hotel is food waste. In most hotels, food comprises approximately 20%-25% of the total waste stream. At the Wyndham Anatole, food waste makes up about 30% of your total. Any plan to reduce waste and lower your disposal costs will have to take food waste into consideration.

We characterized hotel food waste in three categories: (1) plate scraps, which are scraped off guests plates into a trash can and deposited in the trash compactor; (2) prep scraps, which are unusable portions of fruits and vegetables dropped into a tub and occasionally picked up by a local pig farmer, and (3) banquet scraps, which are leftovers from client functions that go to the employee cafeteria or occasionally to a food shelter.

At the Anatole, plate scraps are all waste and are disposed of in your 42 cubic yard trash compactor; grew scraps are primarily disposed the same way as plate scraps because the pig farmer doesn't come everyday; and disposal amounts for banquet scraps are difficult to measure. Our best estimate is that these three categories represent an average of almost 500-800 pounds of food waste a day, filling up a trash compactor about every 2-4 days. On an annual basis, this is equivalent to 90 to 150 tons a year, or \$26,000 to \$41,500 a year in disposal costs. You pay roughly \$1,000 just to throw away the 50,000 pounds of coffee grounds you buy each year. You pay a premium to have the food delivered, then you pay another premium to have it hauled away. We think there is a better way to deal with food waste.

- We'd like to assist you in exploring the best alternative for diverting your food and organics waste into compost; either by composting it on-property or sending it to a commercial composter.
- We'd also like to help you explore the economics of purchasing an in-vessel composter for food waste and other organics the hotel generates like grass clippings, leaves, tree trimmings, ground up wooden pallets, paper, cardboard, etc. The in-vessel composter will turn waste into nutrient rich compost in approximately 28 days and can eliminate your current expense for fertilizer, compost and mulch. Not to mention, greatly reducing your cost for disposal. The capital outlay for this equipment would likely see less than a two year return on investment.
- We see tremendous potential in this area to interest the media and promote public awareness of your environmental leadership.

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### **Food Service:**

napkins  
paper towels  
paper plates  
plastic plates

trays  
trash bags  
trash cans  
floor safety mats

dust pans  
egg cartons  
glass containers

### **Building and Construction:**

carpet  
carpet pads  
flourescent bulbs  
plate (flat) glass  
plastic lumber  
fence posts  
plastic pipe  
pipe fittings  
cement and concrete  
insulation

paint  
ceiling tiles  
flooring  
wallboard  
wallpaper  
roofing  
structural fiberboard  
laminated paperboard  
patio blocks

custom molded products  
cylinder molds  
drums  
restroom partitions  
vanities  
boardwalks  
bridges  
portable walkways  
wire and cable

### **Automotive and Maintenance:**

motor oil and oil filters  
anti-freeze

retread tires  
batteries

squeegees  
mud flaps

### **Landscaping and Recreation:**

hydraulic mulch  
hydroseeding mulch  
composted organics  
planters

landscape timbers  
playground equipment  
playground surfaces  
exercise mats

running tracks  
park benches  
picnic tables

### **Others:**

bicycle racks  
bird houses  
traffic cones  
parking stops  
pallets  
T-shirts  
sweatshirts

uniforms  
golf shirts  
slacks  
shorts  
baseball caps  
blue jeans

corrugated cardboard  
geotextiles  
newsprint  
plastic film  
thermometers  
packaging materials

## **OFFICES**

The various office operations, both the hotel's and those of tenants, are generating a great deal of office paper. In fact, all types of paper represents the largest single waste material the hotel generates, approximately 40% of your total waste stream. Office paper and cardboard will play a key role in your waste reduction and recycling program, offering the biggest "bang for the buck." Reducing the use of paper and recycling what paper is generated will be the easiest segment of your program to implement. But the cornerstone of any successful recycling program is dependent on effective employee/tenant education.

Though we found many innovative and effective operations at the hotel, the office recycling program represents the greatest need for improvement. While a recycling program has been in place for several years, the program has not been properly sustained. There are no desk-side containers for recycling, so everything goes into the trash. When asked, many employees didn't even know there was a recycling program.

As we toured the offices, we made a point to look inside each trash can. What we observed was, except for the occasional chip bag or Coke can, paper, paper and more paper. Recyclable paper. However, the only recycling bins are the 24 gallon containers located in copier areas. That is good placement for these large bins, but few employees are going to take the time to dump their own recyclables in containers that are in another room.

- We recommend that you either purchase desk-side recycling bins or convert your current trash containers into clearly marked recycling bins. If the latter is implemented, choose a number of centralized areas for trash containers. You are likely to find that the trash containers are rarely filled, but that the recycling bins will need to be emptied each day.
- When we conduct training classes at the hotel, we suggest that you allow as many office operation employees to attend as possible, and that you invite tenants to also attend. There is tremendous opportunity to reduce your disposal costs by refining your office paper recycling program. These folks need a refresher course to make your efforts successful.
- Appoint a recycling coordinator for the hotel. Ideally, this person will be a "cheerleader" for the cause of recycling. Consider someone from the marketing department who can produce creative employee and tenant education materials and can track and publicize results.
- Many businesses, including hotels, have recycling committees made up of representatives from each department. This recycling TEAM should feel ownership for the program and be involved from the very beginning in planning and implementing the "new and improved waste reduction and recycling program." It's important you

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### **Steel Cans**

We asked for figures from purchasing on the number of steel cans the hotel purchases each year. We were attempting to explore the volume of waste the cans might represent in order to determine the appropriateness of including them in the recycling program. You generate more than 13,000 #10 steel cans (mostly tomato products) annually. At three quarters of a pound per can, you're throwing away about 9,750 pounds of steel each year that could be recycled. However, the annual cost of disposing of them is only about \$427, while the cost of the labor required to rinse, collect and recycle them might be higher. The low volume would bring very little in the way of payment. Steel prices vary, but are currently running at \$0.02 to \$0.03 per pound, making your 9,750 pounds worth approximately \$243.75. Obviously the current cost of disposal and the potential cost avoidance and revenue from steel is mere pocket change within your annual budget.

- Taken alone, we would not recommend that you recycle steel cans as a way to increase your bottom line, but you might choose to recycle them to reduce your environmental impact and to increase your total waste diversion numbers, as you reach for that goal of 75-90 percent reduction in waste.
- Recycling steel cans would be as simple as rinsing and tossing them in the gondola with the cardboard. Your vendor will allow their inclusion in the recycling compactor. The Steel Recycling Institute has offered free training to kitchen staff in recycling steel cans.

Overall, the hotel's food operations are professionally run with an obvious eye toward reducing waste. We applaud your current waste reduction practices, including buying in bulk, planning meals with little waste, buying unprocessed or uncut foods, using some of your banquet leftovers for employees, donating food to charity, recycling grease, using filters in deep fryers, limiting the use of disposables like paper napkins and cups, limiting the use of individually packaged foods like sugar and ketchup, and using old linens for rags. A few things we'd like the hotel to consider include:

- Buy locally grown food when possible to reduce transportation and the associated air pollution
- Offer guests a half-portion on entrees
- Ask the wait staff to help determine portion sizes by telling chefs when portions are left uneaten
- Ask suppliers to ship products in returnable containers
- Discontinue the use of individually packaged condiments in the Terrace Cafe and Atrium kiosk
- Use washable hats and aprons instead of disposable ones
- Explore a way to safely allow staff to retrieve flatware, cups, etc. from trash cans. Look into rotary magnet systems for flatware retrieval.
- Create a laminated, reusable guest ticket that can be circulated from the customer to the cashier and back again for buffets where meals are set prices.

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Brenda, in the executive offices, reported to us that a number of daily reports are also generated. A couple of them are short reports, but the GRC is approximately 40 pages and is distributed to 70+ people (equivalent to 19,600 sheets or 39.2 reams of paper waste a week). A 36-page weekly report is distributed to approximately 100 employees (3,600 sheets or 7.2 reams a week), and a Monday Morning report of varying length is distributed to approximately 40 managers each week.

Your executive chef receives a daily punch report from payroll, a daily revenue report from accounting, a daily MOD shift report, and yet another daily report from payroll. Check to see if he truly needs and uses all these reports.

- We recommend that you survey employees once again and that you continue to survey them at regular intervals. Make sure that those receiving reports truly need and use the information. In some cases, you may be able to include only information that is pertinent to the recipient, or route the same report to several people.
- Continue to reduce printed reports by putting them on-line.
- For reports where printing is necessary, train staff to practice duplex (2-sided) copying. You'll use half as much paper.

## **PAINT DEPARTMENT**

We were pleased to learn that all paint purchases are now latex, and that only a small amount of oil-based paints remain on the property. There also appeared to be little or no waste, as paints were used over and over until they were gone.

A double-rinse method is currently in place to deal with brushes used with oil-based paints. The brushes are bathed in a vat of solvent (paint thinner) for the initial rinse, then bathed again in a second vat of solvent for the final rinse. When the vat used for the first rinse has outlived its usefulness, the second vat becomes the first and a chemical disposal company removes the old solvent. We noticed that the two vats were separate from each other, that there was no cover on the second vat, and that there was no observable vents to the outside.

- Consider a three-rinse system with all three vats of solvent next to each other. You will greatly reduce the frequency with which you need to dispose of the final rinse.
- Allow solid materials to settle in the vat, then strain and dispose of sediment.
- Be sure there is ventilation to the outside in the room where the solvents.

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have input from those who will actually handle the paper from deskside to the recycling compactor.

- Once the new program is up and running, continue to get the message out to employees and tenants. Reinforcing the new recycling habit is extremely important. Continual reminders will keep participation high and minimize problems. Consider developing a logo and/or slogan for your recycling program, and put up posters to remind everyone of your recycling guidelines.
- Some things you can include in follow-up newsletters, memos, or bulletins:
  - List the total quantity of paper recycled by your program over a period of time
  - List the savings from the program and note where any proceeds are going
  - Provide on-going education and information to keep quantity and quality high
  - Encourage employees to recycle at home
- Create incentives to promote employee participation, such as:
  - Give engraved plaques as awards to divisions with the highest participation
  - Donate cost savings to employees' favorite charitable organization(s)
  - Establish a scholarship fund for employees' children
  - Designate the savings for an employee fund for parties
  - Use proceeds to purchase employee mugs, etc.

### **Reports as a Source Reduction Initiative:**

At the time that Wyndham took over the Anatole, employees were surveyed about the reports they receive and the usefulness of those reports. As a result, the number of hard copies was reduced, distribution streamlined, and in some cases, reports were made available on-line or eliminated altogether. In one year's time, the hotel purchased 480 fewer cases of paper and saved about \$8,500 in reduced paper consumption. The audit of reports was a factor in this waste reduction savings.

Currently, the largest report the hotel generates is the MIS report showing month-to-date purchases. The document is so unwieldy that the director of purchasing doesn't run it in its entirety, but only runs certain sections on an as-needed basis. All of the information is available to him on-line, but his computer is too slow (it takes up to 30 minutes to bring the report up) for on-line access to be particularly efficient. He's much more likely to continue to run sections of the report.

- We recommend that a faster computer with more memory be secured for Jim to make information about monthly and year-to-date purchases more accessible. It will save both time and paper resources.

## **CONCLUSION**

The three largest materials generated at the Wyndham Anatole, paper, food waste and organics, are the obvious materials to tackle for waste reduction and recycling. Add to that effort, expansion in the number of Earth Smart rooms, and the hotel could expect tremendous savings in labor, disposal and laundry costs. What savings and reductions the hotel actually experiences will be dependent on the feasibility of recommendations, management commitment, proper implementation, employee participation, and corporate support.

While we don't expect that every recommendation will be implemented, we encourage you to consider each with an open mind, to be creative in developing your own initiatives, and to include as many employees in the process as possible. Giving your staff ownership and buy-in to new ideas will greatly improve your chances for success.

Finally, the staff of the Texas Natural Resource Conservation Commission is always available to explore waste reduction and recycling ideas with the Wyndham Anatole Hotel, and likewise, for any Trammell Crow-associated business concern.

## **LANDSCAPE DEPARTMENT**

The Wyndham Anatole's 56 acres of grounds are a credit to the landscaping staff's expertise and hard work. And maintaining the Anatole grounds results in substantial organics generation. While the hotel currently treats these organics as "waste," organics are increasingly being considered a valuable commodity. The number of commercial compost operations is beginning to multiply, and the value of organics is expected to multiply as well.

The hotel's winter rye provides the beauty of summer year-round, but mowing the 15 acres of grass increases from once a week to 2-3 times a week during its 6-month growing season (November to April). Most of the time, grass clippings are left on your grounds as a beneficial amendment, but during the peak mowing season, leaving that much of it on the ground is not possible. At that time, as many as 60 bags of grass clippings weighing 25 pounds each (totaling 1500 pounds) are disposed.

Additionally, the landscape department conducts annual tree trimmings that generate enough organics to fill 15-20 open top 40 cubic yard containers. Twice yearly, the landscaping staff discards approximately 12,000 four inch pots of plants. In the public areas inside the hotel, up to 750 six inch pots of plants are discarded every three weeks.

- We have already been contacted by commercial compost operators who are interested in the hotel's organics. There is not likely to be payment for the organics but it would eliminate the need to pay for disposal of 1500 pounds worth of materials each time grass clippings are collected. Not to mention the tree trimmings and interior and exterior potted plants
- We would like to assist in exploring all options for organics from your grounds maintenance and food waste from your kitchens as compostable materials. We recommend that together we fully investigate the potential benefits of either on-property composting or composting through a commercial operation. We believe that a number of benefits could be realized including impressive savings on disposal; savings on the purchase of fertilizers, compost, and mulch; reductions in harmful chemicals found in fertilizers and pesticides; lower water requirements for grounds; enhanced customer, employee and community relations; and improved top soil conditions. As we stated earlier under "Food and Beverage," we'd like to help you explore in-vessel composting as well.
- We recommend that consideration be given to using a portion of the hotel's vast grounds for gardening. An herb garden can be attractive to the eye and pleasing to the senses of park strollers, while providing fresh and flavorful ingredients for the kitchen. Consider having all personnel tending the garden or reaping its rewards wear something like a chef's hat or apron to indicate to guests the freshness of ingredients used in the Wyndham Anatole Hotel's kitchens.

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The following charts can be used to estimate waste generation and to project possible savings through diversion.

TYPICAL DAILY SOLID WASTE GENERATION	
Cafeteria	1 lb. per meal served
Restaurant	1.5 lbs. per meal served
Office	1 lb. per 100 sq. ft., or 0.5-2.0 lbs. per day per person
Warehouse	1 lb. per 100 square feet
Source: Environmental Industries Association	

COMMERCIAL GARBAGE COMPOSITION (%)					
	Paper	Cardboard	Plastic	Metals	Other
Office	65	15	6	2	12
Warehouse & Distribution	25	32	25	7	11
Retail	35	42	8	1	16
Source: Malcom Pirnie, Resource Recovery					