

## Seminar Highlights

This issue of *NYCWasteLe\$\$* is dedicated to sharing the practical, innovative ideas presented by speakers from across the country at the *NYCWasteLe\$\$* seminar for Stadium, Arena, and Convention Center managers and event planners. The seminar speakers shared experiences and offered insight on an array of topics, including waste prevention and recycling tips for the facilities side of the operation, tips for event and meeting planners to help them ask for "green" services, and lighting and energy innovations to help improve facility efficiencies. Seminar speakers enthusiastically share their knowledge and welcome any questions you may have about their presentations. For more information about *NYCWasteLe\$\$*, and for additional tips and case studies featuring waste prevention, recycling and energy conservation efforts, visit our website at [www.nycwasteless.com](http://www.nycwasteless.com). For more information about New York City's Department of Sanitation, visit [www.ci.nyc.nyu/strongest](http://www.ci.nyc.nyu/strongest). ■

## Recycling with the Nittany Lions



The Boy Scouts play an important role in the recycling program at Penn State's Beaver Stadium, and the Nittany Lion mascot pitches in too.

## Stop, Look and Calculate: It May Be Time to Rebid

You may find money hidden in your trash compactor or dumpster if you have not reviewed your waste carting invoices recently. Although exorbitant waste carting costs were reduced and capped when the New York City Trade Waste Commission (TWC) established the "Carting Customer's Bill of Rights," there may be opportunities for you to reduce your costs further, says Eugene DiToro, an Inspector with the TWC.



What would your waste carter charge you for this container of waste?

Simply analyzing your invoices and observing occasional pick-ups may highlight the fact that you are paying more than necessary to have your waste collected. By ensuring that you are charged

only for the quantity of waste and recyclables that you put out for collection, waste prevention efforts that decrease the quantity of materials generated will pay off by reducing your carting costs.

During a *NYCWasteLe\$\$* seminar, Inspector DiToro offered tips for working with waste carters. He stressed that the key to successful waste management is to review your waste carting contract to ensure that your trash is being collected in the most economical way to best suit your operation. If you are paying a flat fee, take a look at the number of pick-ups and determine if a "per pull" system might be more economical.

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Al Matyasovsky, Supervisor of Central Support Services at Penn State University, shows tremendous team spirit as he describes Penn State's Special Events Recycling Program at the *NYCWasteLe\$\$* seminar. The program, which began in 1995 at Beaver Stadium, improved upon an existing recycling program at the football stadium that experienced low participation rates and high contamination rates. By creating a program that combined public, private, and volunteer efforts to showcase recycling efforts at the stadium and campuswide, recycling became a winner at Penn State.

Mr. Matyasovsky has overseen the program since its inception and works with a team of people who help to implement it. At the seminar, he explained that the program's success was the result of careful planning and implementation. He presented the program's stages, which included creating a team to "own" the process, delegating responsibilities, conducting an audit, and identifying the most effective and appropriate volunteers to carry out a successful program.

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## Spotlight On: Seminar Summary

**FEEDBACK** ... Tell Us What's On Your Mind. We would like to hear from you. Please take a few minutes to let us know: (1) if you find the information provided in *NYC WasteLe\$\$* useful, (2) what waste prevention, recycling, and energy efficiency topics you would like to learn more about, and (3) any other thoughts and comments, including your own waste prevention, recycling, and energy conservation success stories. Simply write to us at *NYC WasteLe\$\$*, NYC Department of Sanitation, 44 Beaver Street, 6th Floor, New York, NY 10004, or you may fax information and comments to us at (212) 837-8255 (attention: *NYC WasteLe\$\$*). Thank you for your input.

## Spotlight on Lighting

When Doug Sheppard breaks out his sample products, he is in the spotlight, quite literally. Nothing makes a stronger impression than seeing a new product in action. Sheppard, President of Advanced Energy & Lighting, Inc. in New York City, presented the newest in lighting technologies at a *NYC WasteLe\$\$* seminar for New York City stadium, arena, and convention center managers. He demonstrated each lamp's light quality and explained the cost and energy savings to be gained by considering different types of lighting in a facility.

Sheppard's company, Advanced Energy & Lighting, specializes in delivering energy efficient system designs that are reliable and affordable. He works with individual businesses and organizations to redesign lighting systems, often improving the quality of light, while reducing costs. "Customers are always amazed that they often have more light when the retrofit is complete, but the overall wattage of the fixtures is less," says Sheppard.

Among Sheppard's samples were LED exit signs, several small compact fluorescent lamps, and an induction lamp that can last up to 30 years. This lamp gives off 6,000 lumens using only 85 watts. He described the additional benefit with many of the new fixtures in that most manufacturers offer a two-year maintenance warranty on lamps and ballasts.



Doug Sheppard of Advanced Energy & Lighting, Inc., demonstrates several new lighting technologies at a *NYC WasteLe\$\$* seminar.

Many seminar attendees were most interested in learning about fixtures that can maintain the desired atmosphere in their businesses through lighting techniques. Several fluorescent biax lamps that Sheppard had on hand were able to dim to five percent of their maximum light output. Sheppard also explained that today's full spectrum fluorescent lamps allow you to choose the level of warmth or coolness you would like from the lamp's lighting color.

Lamps are available in a wide array of light colors to suit any setting, from offices and meetings space to exhibit and performance areas.

Other attendees were interested in lighting for large areas. Sheppard pointed to several successful projects. A project at the City of New York Board of Trade used compact fluorescent lamps and reflectors to increase the amount of light significantly on the trading floor while reducing energy costs. A lighting retrofit at the Jacob K. Javits Convention Center reduced energy needs by 50 percent by installing metal halide lamps with reflectors in several hundred square feet of exhibit hall space (see article in the *NYC WasteLe\$\$* Energy issue for details about the Javits Center retrofit).

In addition to the nuts and bolts of lamps and fixtures, Sheppard also described studies conducted by the U.S. Department of Energy and the Rocky Mountain Institute that found by improving lighting, workers are more comfortable and more productive. According to the Rocky Mountain Institute, an increase of one percent in productivity can provide savings to a company that exceed its entire energy bill. He offered a report that documents eight cases in which efficient lighting, heating, and cooling have measurably increased worker productivity, decreased absenteeism, and improved the quality of work performed.

Wal-Mart opened a prototype store in 1993 that experimented with energy efficient features. Skylights were installed on half of the roof, leaving one half with-

out direct sunlight. An energy management system monitored the daylight to adjust energy efficient lighting as necessary. Sales per square foot were significantly higher on the side of the store with daylighting and higher than similar departments in other stores.

The Main Post Office in Reno, Nevada, became the most productive of all sorting facilities in the western U.S., with the lowest error rate for mail sorting, all as an extra benefit of a money-saving lighting retrofit. The facility was redesigned to include a lowered, sloped ceiling in the sorting area and longer-lasting lamps providing a better quality of light. The lower ceiling made the area easier to heat and cool, improved acoustics, and enhanced indirect lighting. Besides combined energy and maintenance savings of about \$50,000 — a six-year payback — the post office estimates that its productivity gains were worth \$400,000 to \$500,000 per year. The six to eight percent increase in productivity gained by providing a quieter, more comfortably lit work environment, paid for the entire renovation in less than one year.

For more information about increasing productivity through energy efficient design, contact the Rocky Mountain Institute at (970) 927-3851, and ask for *Greening the Building and the Bottom Line*. For more information about lighting options for New York City businesses, contact Doug Sheppard of Advanced Energy & Lighting, Inc. at (212) 589-4313. ■

### Nittany Lions continued from page 1

The Boy Scouts and Girl Scouts have participated for several years as volunteers, passing out recycling bags to tailgaters and staffing recycling stations in the parking lots. Scouts encourage recycling by acting as a very visible reminder to game-goers. They wear Scout uniforms and white "Penn State Recycles" hats to interact with fans.

To help guide fans to recycle, recycling stations throughout the parking lots and near the stadium are marked with posters and helium balloons. In addition, a roving recycling-mobile golf cart spreads the word about recycling before each game and helps to ensure that recycling collection is going smoothly. During the game, a tally of the quantities recycled is displayed on the electronic board in the stadium to make fans aware of the results of their efforts.

Another important feature of the Penn State program is its collaboration with the United Way. All proceeds from recycling go to benefit the United Way, a nonprofit organization. In the past four years, recycling at Beaver Stadium has earned the United Way \$37,000. Those fans who may not be inspired by the act of recycling alone often make an effort to recycle because they know they are donating money to a good cause, says Matyasovsky.

Recycling outreach doesn't stop on game day. Every season ticket holder receives a brochure of information that includes recycling instructions for the games. Other outreach efforts have included radio spots read by the University's football coach, in an effort to appeal to the public. The University's recycling program is publicized across campus in the form of hats, posters, mouse pads, stickers, and informational brochures.

The result of the program has been money raised for the United Way, positive public recognition for the stadium and the University, and cost savings in stadium clean-up. In fact, the clean-up costs have been down seven percent since the recycling program began. Staff and volunteers have found that people are more willing to bring trash to a trash bin if they are headed that way to recycle anyway.

Mr. Matyasovsky is so proud of the recycling successes at Penn State that he is even sharing some of his secrets with Big Ten rival, the University of Michigan, as well as other university and professional football facilities in Pennsylvania.

For more information about the Penn State's recycling program, contact Al Matyasovsky at (814) 863-4719. ■

# How Electric Energy Market Deregulation Affects Your Business

Following in the footsteps of the telecommunications industry and the telephone company, the electric utility industry in New York, and specifically Con Edison, will undergo a deregulation process over the next few years. At a *NYC WasteLeSS* seminar, Ron Slosberg, of SAIC Energy Solutions Division, explained the impact that these changes will have on facility managers in the City. In New York City, Con Edison is implementing a phased approach to deregulation. Phase III of the deregulation process is in effect as of April 2000 and systemwide by the end of 2001. Resulting from this change, energy service companies (ESCOs) will emerge and customers will have the option of selecting an electricity commodity provider or remaining with Con Edison.

Slosberg assured public assembly facility managers that energy deregulation will not affect the energy system's reliability, but it will provide customers with an opportunity to save money. The first step to getting the best energy deal for your business is to select an ESCO and negotiate an agreement that will reduce your electricity costs. The ESCO will be responsible for providing electricity to Con Edison who in turn delivers the electricity to you.

As a customer, you will receive a bill from Con Edison and your selected ESCO. Whether or not you will save money depends on the ESCO price ver-

sus "shopping credit" or commodity component. Rate reductions apply to all customers. An ESCO offer may include other services that will benefit your business, such as completion of an energy audit to identify cost reduction opportunities, bill aggregation, and energy project implementation assistance.

Numerous public programs are available to encourage consumers to implement energy efficiency in their facilities. These programs provide technical assistance and financial incentives to help customers identify and install energy efficient equipment. The New York State Energy Research and Development Authority (NYSERDA) has developed various Energy Smart Programs. These include the Flexible Technical Assistance, New Construction, Standard Performance Contract, and Building Commissioning programs. In addition, NYSERDA funds a variety of technology research and development projects. All of these programs are focused on reducing energy consumption while improving the operation of energy systems. For more information regarding these programs visit [www.nyserd.org/engyser.html](http://www.nyserd.org/engyser.html).

Energy customers who decide to buy energy on the open market from a service provider may want to do some research prior to selecting a supplier. Consider the company's background and shop around to compare prices and services of various ESCOs. Also, consider the terms of agreement, available customer service features, and the billing and payment options provided by each potential supplier.

Con Edison's new role begins to moves the company out of the electric generation business and into delivering electricity supplied by the ESCOs. One important note, Con Edison will continue to provide and maintain transmission and delivery services and systems and will respond to emergencies.

Smaller facilities that don't consume significant electricity may find the greatest savings by joining forces with other businesses to purchase electricity in greater amounts. Slosberg suggested that businesses join together and identify an aggregator to help them save money as a result of increased buying power. The aggregator's role will be to organize group of electricity customers, enroll group members through an ESCO and leverage the groups buying power. Check with your local development corporation, trade association or business organizations to determine if there is an effort underway to join together to purchase electricity.

For further information or assistance, contact NYSERDA at (518) 862-1090 or your local Con Edison utility representative. ■

## Waste Reduction Is No Gamble at Mohegan Sun

At the Mohegan Sun Casino and Resort in Connecticut, waste prevention and recycling initiatives have really paid off. At a *NYC WasteLeSS* seminar, Dr. Norman Richards, the Tribe's Director of Environmental Management, discussed the successful integrated waste management, sustainable energy and pollution prevention programs developed for Mohegan Tribal operations with support from the U.S. Environmental Protection Agency and the U.S. Department of Energy.

According to Dr. Richards, the Tribe's and the Casino's integrated waste management hierarchy progresses from prevention, minimization, recycling, and the use of alternative products, to mitigation and co-generation before any safe disposal options are considered as a last resort. The Mohegan Tribe has achieved a 44 percent recycling rate, twice the average recycling rate for communities in Connecticut and higher than the State's overall recycling goal, says Dr. Richards.

Waste prevention programs are initiated by a Pollution Prevention Team composed of Mohegan Sun staff, consultants, the Mohegan Tribal Council, building maintenance personnel, state employees, university scientists, architects, engineers, gaming interests, transportation and facility managers, food service operators, and health service sanitarians. Environmental initiatives are monitored by the

Mohegan Environmental Management Division (EMD).

EMD also oversees education and outreach and a certification program. During their orientation, all new Casino employees are introduced to the waste management hierarchy and told that all employees are responsible for carrying out the Casino's environmental policies. EMD uses bulletin boards, including electronic bulletin boards, to post waste management information and program achievements. Weekly employee newsletters and the Tribal newspaper also provide regular updates on environmental issues.

The Casino has established a comprehensive certification program for its solid waste contractors. To become certified, contractors must attend pollution prevention training, agree to characterize the Casino's waste streams, and allow EMD to conduct site visits of their facilities to ensure compliance with environmental policies. The Mohegan Tribe uses total cost assessment and materials balance to monitor waste quantities and costs. They also keep a close watch on purchasing and hauling records.

Specific environmental initiatives underway at the Casino include: increasing "green" purchasing, reducing office paper use, monitoring air emissions, and improving indoor air quality. Staff is evaluating the performance and compostability of biodegradable substitutes for plastic dinnerware, cups, straws, and bowls. Vendors deliver to the Casino in reusable transport

packaging manufactured from recycled plastic. Fabric wall coverings reduce the need to repaint, minimizing labor, purchase and use of paint, and air emissions.

To achieve its high recycling rate, the casino recycles corrugated cardboard, glass, metal and plastic containers, office paper, spent cooking oil and food. Food scraps from the preparation of, and leftover from, the more than 30,000 meals served at the casino each day are sold to a pig farm for feed. The high quality hog meat is then used by the Mohegan Sun Casino. Dr. Richards stated that about 37 barrels of food scraps per day are sent to the pig farm, resulting in a significant reduction in solid waste disposal costs for the Casino.

Through the Casino's comprehensive pollution prevention program, Dr. Richards estimates that a 90 percent recycling rate is achievable. He continues to identify innovative ways to reinvent the program and reach this goal. He says, "Based on our pollution prevention experience, I can see potential for similar facilities to develop related programs that would save money, reduce waste storage space, minimize potential for vermin and the need for pesticide use, reduce human health risks, protect environmental values, benefit from positive public relations, and instill program pride in employees."

For more information about the recycling and waste prevention programs underway at the Mohegan Tribe, contact Dr. Norman Richards at (860) 204-6112. ■

## Stop, Look & Calculate continued from page 1

If you are currently charged on a per pull basis, check to see that you are not paying for com-

### Six Simple Steps That Can Save You Money

- Ensure that your compactor is operational, has working gauges, and that staff checks gauges prior to pulls to make sure compactors and dumpsters are full.
- Confirm that your trash bills comply with the TWC's maximum legal rates for removal of waste.
- Request a waste stream survey by your carter to help you establish a baseline waste generation rate.
- Monitor your containers to ensure that recyclables are not being discarded with general trash.
- Reduce the frequency of pick-ups as recycling and waste prevention activities reduce the quantity of waste discarded.
- Ensure that your carter has not incorrectly classified your open dumpsters as construction and demolition (C&D) debris, for which there are no maximum rates. Waste from normal daily activities should not be considered C&D waste.

packors and containers to be removed when they are less than full. Your waste prevention efforts will only pay off financially if you reduce the cost of waste disposal by reducing the number of pulls you pay for.

If you have a trash compactor, you are paying the higher rate charged for compacted waste. Consider what type of waste you discard in your compactor. Is it waste that can be compacted? For some materials that can be compacted significantly, a compactor may be much more economical than a dumpster, but many businesses find that they are paying for a compaction ratio that is not possible to achieve. For example, food waste is not easily compacted. Therefore, collecting food waste in a dumpster instead of a compactor may be less expensive. However, you also must consider the odor and vector problems caused by food waste and weigh the advantages and disadvantages of collecting in an open container versus a sealed compactor.

One New York City business recently switched from a flat fee to a "per pull" system and discovered that its carter was billing based on loose waste prices. However, the business had both compactors and open-top dumpsters. To make the billing

uniform, the carter elected to charge the loose waste price by converting the compacted waste volumes to a loose waste volume using a conversion ratio. Not only did these converted volumes create a higher price, but the carter used conversion ratios that were unreasonable (2:1 or 3:1 are standard), making the volumes and, therefore, the price even higher. Using the business's waste volumes and TWC's maximum prices as an example, the business estimated that they were being overcharged almost \$10,000 per month — a significant cost to the company.

### TRADE WASTE COMMISSION MAXIMUM RATES

Rate	Weight (by volume)
\$30.19 →	per cubic yard for compacted trash
\$12.20 →	per cubic yard for loose trash
\$ 2.66 →	for 55-gallon trash bags > 80% full
\$ 1.45 →	for 30-gallon trash bags > 80% full

For more information, contact the New York City Trade Waste Commission at (212) 676-6275. ■

## A Hooray for Green Meetings

Patricia Griffin is a self-proclaimed cheerleader for green meetings. She even brought pom-poms to the *NYC WasteLe\$\$* seminar to cheer those who have incorporated money-saving, waste-reducing practices into the daily activities at meeting facilities.

What are Green Meetings? As President of the "Green" Hotels Association, Ms. Griffin has spent the past six years working with hoteliers, meeting planners, travel agents, tour guides, business travelers, and government agencies to explain and encourage green meeting practices, such as considering recycling, using reusable products, conserving energy, and reducing waste through a variety of thoughtful decisions and choices.

Griffin explained to a group of facility managers and meeting planners from New York City that making meetings green involves knowing what services are available and taking advantage of them, as well as asking for certain products and services. From the facility's perspective, it means providing the services that planners and the general public want.

For example, implementing or participating in a recycling program is a good place to start. Other green activities include considering the use of durables over disposables in food service, purchasing or requesting recycled-content products, and requesting smaller food portions to avoid food waste.

Some basic tips:

- Use overhead projectors with erasable acetates rather than flip charts or handouts to conserve paper.
- Double-side any necessary handouts.
- Offer reusable serving items for food and beverages.
- Serve food buffet-style so attendees can take only

what they want or serve smaller portions to reduce food waste.

- Serve condiments in bulk instead of in individual packets to save money and reduce packaging waste.
- Donate edible leftover food to local food rescue organizations.

"Use your voice and your influence and your dollars to encourage any meeting-related facility to 'green up,'" Griffin offered to attendees.

To assist meeting planners, the association has developed a "green" meetings questionnaire. The two-page questionnaire, which can be found at [www.greenhotels.com](http://www.greenhotels.com), asks 36 pertinent questions that will reveal the greenness of a hotel or convention center. The questionnaire focuses on recycling, purchasing recycled or recyclable items, food and beverage service, bottle deposits, leftover food, meeting materials, guestroom amenities and services, and water and energy conservation.

"A very important question is the one that asks if the facility will commit to seeing that items are actually recycled. Many facilities are willing to set up bins to collect items, and then will pour it all in the dumpster," warns Griffin.

The association also has conducted research and developed a catalogue of energy- and water-saving products, and offers pest control and landscaping tips.

For more information or for a copy of the green meetings questionnaire or Catalog of Environmental Products for the Lodging Industry, contact Patricia Griffin at the "Green" Hotels Association in Houston, Texas, at (713) 789-8889. ■



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