



**AMERICAN
REF-FUEL**
COMPANY OF ESSEX COUNTY

If you have a question or concern about operation of our
Essex Facility you may reach our hotline answering
machine 24-hours-a-day by calling
201-817-7667
An appropriate Ref-Fuel representative will then respond.

Waste-to-Energy News

Tipping Floor Inspectors: The First Line of Defense

FALL 1996

Sifting through tons of garbage each day may seem tedious -- even unpleasant -- but it doesn't sound all that complicated.

"Wrong," said Bob Scotko, American Ref-Fuel plant services supervisor. "There's a technique to it, and it requires a great deal of concentration. Our tipping floor inspectors are the first line of defense to keep unauthorized or hazardous materials out of the plant."

Inspections of incoming trash have always been an important part of plant operations, Bob noted, but they have assumed a higher profile since the Essex County Utilities Authority, in a cost-cutting move, removed its inspectors from the plant in September. The tragic death of a New York sanitation worker who was killed when a garbage truck compressed a container of hydrofluoric acid has also brought the issue of hazardous materials to the forefront.

"Our procedures are very thorough, and very safe," Bob said. "First of all, nothing goes directly into the pit. Every incoming load of garbage is dumped out on the tipping floor." The tipping floor is a cavernous, 16-bay hall where trucks enter the plant.



A payload "rolls" a load of waste on the plant tipping room floor. This process causes non-permitted bulky objects to fall off to the side of a load.

"There are at least two men on the floor at all times, and they inspect each load, first visually," Bob explained. "If they suspect some non-permitted waste is in the load, they ask the payload operator to turn the load with its bucket. If the inspector wants to examine a load more closely, or if he suspects hazardous material, he can manually go through the load, using protective gloves and a fireman's hook."

Any load carrying unauthorized nonhazardous trash like construction debris is rejected, the inspector documents it in a written report and with Polaroid photographs, and it is sent back in the truck that brought it, Bob said.

"We have **never** had any hazardous waste come into the plant," Bob stated. "But if we did discover hazardous material, we have another set of procedures ready to kick in."

"We're considered 'first responders,'" he explained. "It's our job to spot hazardous waste if it's there, but it's not our job to dispose of it."

If hazardous material were ever spotted, that area of the floor would be evacuated and cordoned off with safety tape and traffic cones. Plant Environmental Engineer Marty Suchan would be notified, and he would notify the state Department of Environmental Protection (DEP) so they could make an inspection. At that point other authorities, such as the county hazardous materials (Hazmat) team or fire department, might be brought in, depending to what hazardous material was

discovered. There is a full set of protocols for any hazardous material that might turn up at the plant.

"We would try to continue operating if it could be done safely," Bob said, "but depending on what the hazardous material was and where it was located on the floor,



John Joyner, American Ref-Fuel Tech IV inspector, uses a fireman's hook to pull an office chair out of a load of waste. This load, which also contained bricks, building materials and a steel door, was rejected and sent back on the truck it came in.

we might have to stop trucks from entering the plant for a while."

Once a load passes inspection, the floor inspector gives the okay and the payload driver begins to "roll" the load toward the pit. The rolling causes bulky items to drop out to the side. Meanwhile, the driver is visually inspecting the load as it rolls. "Rolling will turn up heavy items, such as old propane cylinders, which can be very dangerous," Bob said.

After garbage is in the pit, crane operators also perform visual inspections as they prepare the garbage to be loaded into the burners, looking especially for bulky items, such as appliances.

Before a load of garbage enters the tipping hall, it goes through a preliminary screening at the scalehouse. Scale operators check the manifests against the truck's load to make sure that it contains "acceptable" waste. The scale also has a

Continued on page two

A New Era for Solid Waste Management

As the last issue of *Waste-to-Energy News* went to press, a federal court ruled that New Jersey's method of regulating waste in the state was unconstitutional. The judge gave the state two years to devise a new system and dismantle the old one.

Obviously, this court decision will affect our plant, the garbage industry, state regulators and many others who are involved in the pickup and disposal of the thousands of tons of trash New Jersey residents produce every day.

This decision now raises the issue of how it will affect you, the typical Essex County resident. The two most important questions for county residents are: "Will I be able to get rid of my garbage?" and "Will it cost me any more?"

The answer to the first question is "Yes." Your municipality or private hauler will continue to pick up your garbage and



Alan Iantosca

American Ref-Fuel will continue to provide a place where they can bring it. We're here to serve the citizens of Essex County and New Jersey, and we will continue to run our plant in the safest, most environmentally sound way possible.

We have operated the Essex plant successfully in New Jersey's regulated environment, and from our experience in other states, we know we can successfully operate in an open market situation.

The question on costs is more difficult to answer, since costs a few years down the road may be affected by events we can't predict today -- just as a few years ago no one could have foreseen that the courts would overturn flow control.

A simple answer is that the court ruling is not expected to affect the cost of garbage disposal in Essex County in the short term. It is also important to point out that other factors affect trash disposal costs, and those costs may vary between different haulers and different towns, regardless of the court action.

Meanwhile, state officials are beginning to take steps to provide a new system of waste collection and disposal. One bill has already been introduced. The sponsor has toured our plant and we will provide him with our input on the bill.

This is not the last word on the subject. There will almost certainly be other legislation introduced, and many people who are affected by it will have their say. We will continue to provide our input to legislators and regulators as they work to design New Jersey's waste disposal system for the next century.

And we'll keep you posted through this newsletter every step of the way.

Tipping Floor Inspectors: The Last Line of Defense

Continued from page one

truck's load to make sure it contains acceptable waste. The scale also has a radiation detector, which will indicate if there is radioactive waste in a load.

"It's very sensitive," Bob said. "And again, we've never had an incident where anything dangerous has been brought to the plant. One time, the alarm went off because somebody threw away an old watch with a radium dial. Another time, it was set off by a piece of cloth with some low-level radioactive residue from a medical procedure. In both cases, the truck never got into the plant and the county Hazmat team came and took care of the materials."

Inspectors are on duty whenever the plant is open to receive waste--that's 17 hours a day Monday through Friday and eight hours on Saturday.

"Hazardous materials are not much of a problem," Environmental Engineer Marty Suchan said. "The main reason we haven't had any problems with hazardous waste is our continuing education program for haulers. They know from the

beginning what we'll accept at the plant and what we won't. Our handbook on acceptable and unacceptable waste is updated annually and distributed to haulers. Educating them is important, and we've done a good job, because we've never had to implement our procedures for intercepting hazardous waste. Our typical rejected load is something like construction debris that somebody has brought in."

Can someone visually inspecting more than 2,500 tons of garbage a day really find things that don't belong there? "Our inspectors are very well trained in how to look and what to look for. They can see different characteristics in what appears to the average person to be just garbage," said Bob. "We even have a pretty good track record finding small objects that people want to retrieve after accidentally throwing them away. Over the years, we've rescued a lady's bridal veil, a boy's pee-wee football uniform and even a wedding ring. I think that shows how thoroughly we can screen incoming trash."

Ten Month Results

In calendar year 1996, through October 31, the American Ref-Fuel Essex County Resource Recovery Facility:

- Processed 771,414 tons of waste--enough to fill 96,000 standard "packer" trucks that pick up residential garbage.
- Produced more than 378,387 megawatt hours of electricity, enough to power 50,000 homes.
- Recovered and recycled 17,707 tons of ferrous metal (iron and steel), about 80 times the weight of the Statue of Liberty.

Holiday Trash Tips: Recycle, Reuse

Before you bag those disposable holiday items to throw them out with the next trash pickup, stop. They may have a longer life than you think.

"We can all cut down on the household waste we generate at holiday time if we take a minute to think whether something can be re-used or recycled," says Marty Suchan, environmental engineer for American Ref-Fuel. Marty offers the following tips:

- Christmas trees cannot be put in regular household waste collections. Many towns will pick the trees up and recycle them into mulch. In some municipalities, you can bring your tree in to be chipped and have the mulch returned to you for use in your own garden. Check with your town's solid waste coordinator as to how to dispose of trees where you live.

- You can set your old tree up in your yard and use it to attract birds for food and shelter. Hang small pieces of suet or pine cones rolled in peanut butter and bird seed in it.

- You may be able to donate cards, gift decorations and ribbon for use in arts and crafts projects at a school or day care center.

- Save as much wrapping paper from larger items, bows and especially boxes as you can and store them for re-use next year, rather than buying these items new.

- Mixed paper is now being collected in many towns for recycling. Be sure to remove ribbon and tape before you put old wrapping paper out for recycling.



Marty Suchan

- If you do throw away boxes, remember to separate corrugated cardboard cartons for recycling.

- In the rush of holiday entertaining, don't forget to separate glass bottles and aluminum cans for recycling.

- You may find you have extra food in the house during the holidays. Consider donating some to a food pantry or shelter.

- You can donate items of clothing you can't use or exchange -- or old clothing that's been replaced by new gifts -- to charities.

- Remember to separate batteries from cameras, new toys and other battery-powered gifts and hold them for the next county household hazardous waste collection.

- Also remember if you get a new wireless appliance, such as a cordless phone or power tool, the old one probably has a built-in battery, and should be separated from household garbage and also held for household hazardous waste collection.

"Ask yourself the question: Is this something that can be put to a good use?" Marty said. "Re-use and recycle as much as you can, separate batteries and other household hazardous waste, and put the rest out with your regular household trash for collection."

The Plume is Back

Every year at this time a white "plume" begins to appear above our plant stack. Tour visitors and other people passing our plant site often wonder what it is.

"Water vapor," responds Environmental Engineer Marty Suchan, "and it's there all the time. You just don't see it in the summer because the outside air is warmer."

Water is produced in the form of steam when garbage is burned in the plant at temperatures near 2000 degrees Fahrenheit. The steam and other flue gases go through our environmental control system and eventually out the stack. At that point they have cooled to about 300 degrees.

In warmer weather, because there is less of a difference with outside air temperature, you can't see the steam leaving the stack. "When the temperature drops to about 40 degrees or below, the steam forms white water vapor when it hits the cold air," Marty said. "The colder the air, the bigger the plume. It's no different than the 'steam' you see coming out of the teakettle on your stove."

Where to Get Recycling Information

Recycling programs vary greatly among Essex County municipalities. While virtually all offer curbside recycling, schedules, materials collected and separation requirements differ from town to town. Some municipalities also have drop-off centers.

You can get general information about recycling and solid waste management in Essex County by calling the Essex County Utilities Authority: **201-857-2350**

For information about recycling in specific communities, call the municipal recycling coordinator:

Belleville	201-450-3414	Millburn	201-564-7058
Bloomfield	201-680-4009	Montclair	201-783-5600
Caldwell	201-403-4640	Newark	201-733-6683
Cedar Grove	201-239-1410	North Caldwell	201-228-6413
East Orange	201-266-5337	Nutley	201-284-4958
Essex Falls	201-226-3400	Orange	201-266-4033
Fairfield	201-882-2725	Roseland	201-226-6565
Glen Ridge	201-748-8400	South Orange	201-378-7741
Irvington	201-399-6690	Verona	201-857-4803
Livingston	201-535-7973	West Caldwell	201-226-2301
Maplewood	201-762-1175	West Orange	201-325-4159

Korean Masks Highlight Tour Gift Display

American Ref-Fuel received a pair of ceramic ceremonial masks recently from a group of Korean government officials visiting the plant for a tour.

Foreign tour groups frequently present gifts to American Ref-Fuel. Our collection of these unusual treasures from around the world is on display in our conference room, where all tours begin. Our "International Display" also contains a collection of miniature flags representing countries from which visitors have come to tour the plant.

While many countries are represented, Korean gifts dominate the display. The two full sized masks were presented to Ref-Fuel by members of the Dae Jun city council, who visited the facility in August. The masks, whose origin dates back to the Koryo Dynasty, portray different facial expressions that represent the feelings of the wearers. They are used for ceremonies and celebrations, and certain masks are even believed to help drive out devils.

The masks are a very traditional and popular gift item for Koreans. A group of councilmen from Ku Mu City presented

the plant a collection of four miniature masks and representatives of the industrial technology department of South Korea's capital, Seoul, gave a framed nine mask miniature collection.

Another unique gift from Korea is a pair of decorative hanging tassels, also presented by the group from Seoul. The tassels, one red and one blue, are considered good luck charms and are traditionally presented to a bride and groom as a wedding gift and hung in the couple's home or business.



Tour coordinator Liz Howard displays two Korean ceremonial masks presented to American Ref-Fuel by the Dae Jun city council during a recent visit.

Plant tours are a very popular activity with civic organizations, scouts and other youth groups, and schools. The program -- which is free of charge -- includes a video explaining the waste-to-energy process and a walking tour of the plant. Tours take about an hour and are geared to the level of understanding of the members of the group.

Groups that have recently toured the plant include:

N.J. Institute of Technology; Cook College (Rutgers) Recycling Class; Lincoln School (Kearny); Governor School of the Environment; Bergen Co. Utilities Auth.; Summer Camp; Washington School (Summit); Roosevelt Middle School (West Orange); Somerset Hills Garden Club; Montclair Cooperative School; NJIT Academic/Soccer Camp; Cub Pack #10 (South Orange); Extended Day Program; Polish Boy Scouts; Dae Jun City (So. Korea) Council; Sungtan City (So. Korea) Council; So. Korean Local Council Secretariat; Goo Mi City (So. Korea) delegation; So. Korean Industrial Groups (5); and Environmental and Occupational Health Resources Inst. (Piscataway).

To arrange a tour, call Liz Howard at (201) 817-8307.

Ref-Fuel Expands NJIT Soccer Camp Sponsorship

This past summer, American Ref-Fuel expanded its name sponsorship participation in the Youth Academic and Soccer Camp at New Jersey Institute of Technology.

"We've enjoyed a rewarding association with NJIT in bringing this fine program to urban youngsters," said Plant Controller Tim McEvoy. "We're proud to be able to expand our sponsorship role this year so four more students can benefit from this wonderful opportunity."

The camp attracts high school-age inner city youngsters who might not otherwise be able to attend a summer camp. Morning



Instructor Paul Cudano illustrates a math concept for (from left) Jason Gibbs, Stanley Fleurissant and Mauricio LeMarie.



American Ref-Fuel Controller Tim McEvoy is an interested spectator as Marcel Lormil and Claudio Barbaran (kicking) improve their soccer techniques under the guidance of NJIT Head Coach Dan Kilday.

sessions, conducted by certified teachers, help them improve their academic skills. Afternoon sessions on soccer skills are conducted by NJIT head soccer coach Dan Kilday and an experienced staff. The day ends with a dip in the university pool. An afternoon tour of the Ref-Fuel plant is a highlight of the week's program.

Some 44 youngsters from Newark, Irvington and East Orange participated in this year's camp under Ref-Fuel's expanded sponsorship.