

Strategies/Planning:

Carbon Offset Credit
Hurdles for MSW Projects

Page 24.

Lighting:

The T12 is Sent
Packing by the DOE

Page 28.

Waste-by-Rail:

Requirements of
Hauling Waste

Page 35.

SHOP AT THE
ADVANTAGE MARKETPLACE!
PAGE 59

www.wasteadvantagemag.com June 2012 Vol.3, No.6

WasteAdvantage

The Advantage in the Waste Industry

magazine

AMERICAN WASTE CONTROL:
**NO SIGNS OF
SLOWING DOWN**

Preventing Heat-
Related Illnesses

PLUS:
Recycling/Transfer Stations/
Landfills Section Page 47



HOLTZ



INDUSTRIES, INC.

**CALL TO PLACE
YOUR ORDER TODAY!**

1-800-535-0104



REEVING SYSTEMS *IN STOCK!*

**WE SELL
CABLES AND
ROLL-OFF
CABLES TOO!**



**WINCHES AVAILABLE IN
8,000 & 12,000 ILBS.**



**FILTERS AND
FILTER CARTS**

**WE STOCK A
VARIETY OF PANELS!
CALL TODAY**



**REPLACEMENT LIDS
AND CONTAINER PARTS**



**WASH OUT TANK KITS
ALUMINUM & STEEL AVAILABLE**



**NEED JUST
THE BODY?
WE CAN DO
THAT TOO!**



**CONTAINER CARRIERS AND
ROTATOR ATTACHMENTS**



ROLL-OFF HOIST BODIES



**VARIOUS BRANDS OF
REAR-LOAD PACKER BODIES**



**HOOK-LIFT
HOIST BODIES**

One Stop Shopping For Your Replacement Parts

REPLACEMENT PARTS SOLD FOR: HEIL • LEACH • EZ-PACK • MCNEILUS • DEMPSTER • PAK-MOR • GALBREATH • G&H • KPAC • CRANE CARRIER • WAYNE • LOADMASTER • NEW WAY • LABRIE • MARATHON • ACCURATE • PIONEER • O'BRIAN • BAYNE • PERKINS • SLENDERLINE • AND MUCH MORE!!

1-800-535-0104 | (740) 366-4002 | WWW.HOLTZINDUSTRIES.COM



PUMPS



HYCO



AIR CONTROLS



LIGHTING

RayView®
Camera Systems



CAMERA SYSTEMS



WE OFFER:

- REAR LOAD CONTAINERS
- CARTS AVAILABLE IN 68 AND 95 GALLON IN STOCK READY FOR IMMEDIATE DELIVERY!
- CART LIFTERS ALWAYS IN STOCK!



CHECK OUT OUR ADS ON PAGES 84-87!



CLICK HERE FOR MORE INFORMATION!

Editor's Note



THE WASTE EXPO WAS A SMASHING SUCCESS! A PACKED EXHIBIT HALL AND

crowded floor events provided a great networking venue for people to meet, see old friends and do business. *Waste Advantage Magazine's* booth had a steady flow of people signing up for the magazine, coming to say hello and meet with us. Many exhibitors unveiled new products, technologies and ideas to crowds that were eager to learn the next big thing. We saw some interesting and innovative new technologies down every aisle and were even witness to a couple married on the show floor by an Elvis impersonator. Overall, it was a great opportunity to meet waste experts and talk with them about how they thought their particular innovations would help the waste industry move forward. We look forward to being a part of the next waste industry event.

We have a great June issue for you featuring a spotlight on American Waste Control (page 14). Not only is on the list of the top 50 companies in the waste industry, but it also has taken advantage of the down economy to grow through aggressive strategies and innovative projects. Also, be sure to take a look at "The Heat is On: Preventing Heat-Related Illnesses" (page 19), especially as we get into the summer months and the temperatures and humidity reach uncomfortable levels, which gives tips on keeping cool during the hot weather. And "The End of an Era: The T12 is Sent Packing by the DOE" (page 28) discusses the changes in lighting regulations for waste facilities and urges readers to take advantage of the rebates that are available for a short time.

Thanks to everyone who stopped by Waste Advantage Magazine's booth at the Waste Expo. We truly enjoyed speaking with all of you and appreciate the input and suggestions you gave us concerning future issues. In the meantime, feel free to contact me with any comments, questions, etc. We always look forward to hearing from you.

Best Regards,

Angelina Ruiz
Editorial Director
angelina@wasteadvantagemag.com



Read On-line!

Rick Eggleton
Human Resources
Universal Waste Systems (Santa Fe Springs, CA)

Sal Tagliavia
President
Sanitation Repairs Inc. (Brooklyn, NY)

Ralph Velocci
President
Rav-Enviro Consultants (Miami, FL)

Bob Wallace
Principal and VP of Client Solutions
WIH Resource Group (Phoenix, AZ)

Drew Weil
Account Representative
Sunbelt Hydraulics (Pompano Beach, FL)

PUBLISHER
Gary Orfe
gary@wasteadvantagemag.com
(800) 358-2873 Ext. 2

EDITORIAL
Editorial Director
Angelina Ruiz
angelina@wasteadvantagemag.com
(800) 358-2873 Ext. 7

Associate Editor
Meghan Pirone

ART/PRODUCTION
Director of Production/Design
Heidi Jensen
heidi@wasteadvantagemag.com
(800) 358-2873 Ext. 8

CIRCULATION
Circulation
Candace Schmitt
circulation@wasteadvantagemag.com
(800) 358-2873 Ext. 6

SALES
Sales Manager
Noreen Cocron
(800) 358-2873 Ext. 1
noreen@wasteadvantagemag.com

Account Executive
Marcus Rubio
(800) 358-2873 Ext. 3
marcus@wasteadvantagemag.com

ACCOUNTING
Accounting Manager
Elisa Weil
elisa@wasteadvantagemag.com
(800) 358-2873 Ext. 5

WASTE ADVANTAGE, LLC.
PO BOX 30126
PALM BEACH GARDENS, FLORIDA 33420-0126
TEL: (800) 358-2873 • FAX: (888) 871-4515

Waste Advantage Magazine (ISSN # 2150-8429) is published 12 times per year, January, February, March, April, May, June, July, August, September, October, November and December.

A controlled circulation publication, *Waste Advantage Magazine* is distributed without charge to 25,000 qualified subscribers in the United States and Canada. Non-qualified subscription rates in the United States and Canada: \$48.00 per year. All other countries: \$200.00 per year payable in U.S. funds. Single copies \$15.00 per issue in the United States and Canada. All other countries \$18.00 per issue.

©Entire contents copyright 2012. No portion of this publication may be reproduced in any form without written permission from the publisher. Views expressed by the bylined contributors should not be construed as a reflection of the opinion of this publication. Publication of product/service information should not be deemed as a recommendation by the publisher.

Editorial contributions are accepted from the waste industry. Contact the editor for details. Product/service information should be submitted in accordance with guidelines available from the editor. Advertising close is 30 days prior to the month of publication.

CHANGE OF ADDRESS REQUESTS MAIL TO:
Waste Advantage Magazine, Attn: Circulation,
PO BOX 30126, PALM BEACH GARDENS, FLORIDA 33420-0126
PRINTED IN THE U.S.A.





NOW FULLY INTEGRATED AT THE OEM LEVEL

The Automated Front Loader

The AFL is the full integration between a front loader and a detachable automated loading device through a seamless interface. Until this point the Curotto-Can had functioned as an attachment for commercial front loaders. However, the full integration at OEM level of the Curotto-Can with a residential front loader - including an autodump function and a dedicated-function dual vane hydraulic pump - heralds the advent of something quite new and revolutionary - the AFL or Automated Front Loader. To find out more call us and we will send you our new fact-filled brochure and DVD package which details all the advantages of the Curotto-Can AFL system.

THE **Curotto-Can**

(707) 939-2802
thecurottocan.com



**CLICK HERE FOR
MORE INFORMATION!**

In This Issue

June 2012 Volume 3, Number 6

14 In the Spotlight

American Waste Control: No Signs of Slowing Down

Reacting proactively to a struggling economy by improving efficiencies in their operations and looking for new opportunities, American Waste Control has ensured strong company growth and a positive path

19 Safety: The Heat Is On

Be alert and be prepared. Heat-related illnesses are preventable.

JIM OLSON, JERRY FLOWER AND WILL FLOWER

24 Strategies/Planning: Carbon Offset Credit Hurdles for Municipal Solid Waste Projects

Municipalities interested in pursuing carbon offset credits in conjunction with the GCCS operation should thoroughly evaluate their current operation practices, along with staff capability to properly implement the protocol requirements.

CAMIVAN ABEL

28 Lighting

The End of an Era: The T12 is Sent Packing by the DOE

Gone is the era of the T12. Now, stop donating to your local utility, start saving energy and use those rebates.

SARAH K. STEELE

33 Fluids: Environmentally Safe Bio-Hydraulic Fluid for Compactors on Refuse Trucks

Given the higher lubricity, better performance issues and today's extremely high cost of petroleum, the price is right for America to change to an environmentally friendly, toxicologically safe bio-hydraulic fluid.

IRA PIERCE

35 Waste-by-Rail

Railroads: Requirements of Hauling Waste

Railroad requirements seem tough but generally are limited to a shipper's compliance to a set of Federal, State, local and railroad rules and regulations. Becoming educated on rules, regulations and processes ahead of time will ensure that your experience moving waste in bulk is a successful one.

DARELL LUTHER

39 Zero Accident Culture

Waste and Recycling Report Card: Mid-term Review

Successful companies have 20/20 vision in regards to past and potential future incidents. Goal setting and measuring is vital to continue on a productive path towards zero accidents and zero tolerance for unsafe habits.

JOHN WAYHART

41 Tires Case Study

DuraSeal Technology Tires Helps Construction Waste Hauler Reduce Downtime Due to Flat Tires by 90 Percent

Since switching to DuraSeal, Cragco Inc. can now measure tire life by miles instead of months.



On the Cover:

Mr. Murph picks on one of American Waste Control's hybrid sorting lines.

Photo courtesy of American Waste Control (Tulsa, OK).

In Every Issue:

4 Editor's Note

8 Trash Talk

10 Mark Your Calendar

12 Government Gossip

44 Breakthroughs and Innovations

47 R/T/L Section

99 Ad Index

59 ADVANTAGE MARKETPLACE

The place for ONE-STOP-SHOPPING TO FIND ANY EQUIPMENT to fit your needs. Turn to this featured section to discover who is selling what in the solid waste industry today.

Photos courtesy of Goodyear Commercial Tire, Tealinc, and Clearspan Fabric Structures.



MAMMOTH OF STEEL



FAST DUMP CYCLE

The 12 second cycle time keeps your efficiency on track. Because every second counts.



STRENGTH

10,000 Lb. loading power at your fingertips. This is force you can feel.



HIGH COMPACTION

153,000 lbs of packing force. This hydraulic compactor has the highest packing capability in the industry.



DEPENDABILITY

Learn why New Way loyalty is second to none. Less maintenance. More road time.



PACKED WITH SUPERPOWERS

The latest Mammoth from New Way brings incredible feats of strength to your fleet. From colossal compaction to superhuman speed and invulnerable dependability, the fearless Mammoth is born to defeat the villains of downtime. It's time to become the grime-fighting hero your city deserves. Uncover your true identity at newwaytrucks.com/supermammoth



NEW WAY
Driving The Difference.

101 State Street • Scranton, IA 51462 • T 800 831 1858 • F 712 652 3399
www.newwaytrucks.com • Proudly USA Made

2589-07



**CLICK HERE FOR
MORE INFORMATION!**



Waste Haulers to Benefit from Natural Synergies Between E-Z Pack and Navistar

E-Z PACK MANUFACTURING (Cynthiana, KY) announces that certain assets, including intellectual property, of the company are being acquired by Navistar, Inc. E-Z Pack President Greg Podell said that he expects E-Z Pack to continue to operate in a normal business manner throughout the transition period. "We will continue to build, market, sell and support our traditional chassis-agnostic product lines, including our full line of quality Hercules front loaders and automated side loaders, and our Goliath rear loaders. We will also support the integrated cab-chassis-body product line from Navistar."

Says Jack Allen, President of Navistar's North American truck group, "The addition of integrated refuse bodies to our lineup gives us another opportunity to provide an integrated, one-stop shop for waste haulers and helps expand Navistar's industry-leading portfolio of purpose-built products."

For more information, call (800) 331-0136 or visit www.ezpacktrucks.com.

Wayne Engineering Promotes Scott Kanne to Executive Vice President

WAYNE ENGINEERING (Cedar Fall, IA) announces the promotion of Scott Kanne to Executive Vice President. Kanne is an industry veteran with more than 15 years of experience. He previously served as vice president of EZ Pack and also of Scranton Mfg - New Way. Kanne is now responsible for profits and

losses and strategic planning. These duties come in addition to his current role as head of marketing and sales.

For more information, contact Scott Kanne at (712) 790-4955 or e-mail skanne@wayneusa.com.

Alliance Refuse Trucks Moves Into New Facility

ALLIANCE REFUSE TRUCKS recently completed its biggest expansion yet, moving into a new 6.5 acre paved facility in Gilbert, AZ, complete with modern offices, state-of-the-art paint facilities, a new warehouse and a 10-bay workshop. Principals Aidan Warrington, President, and Keith Alexander, VP Sales, have more than 50 years combined experience in waste collection and heavy truck repairs. That experience has served them well, as they counsel waste haulers on the proper equipment needed to service their routes, building a growing clientele of repeat customers in the U.S. and abroad. "It's because of our relationship with our customers that we have continued to grow," Warrington says. "Now we operate from this pristine facility on the outskirts of Phoenix, because of those loyal customers. We proudly stand behind every truck we sell, knowing that we're saving our customers thousands of dollars in the process."

For more information, call (602) 721-1264 or visit www.alliancetruks.com.



We'll Prove That Cost-effective Business Insurance Isn't a lot of Rubbish.



SPECIALIZING IN REFUSE AND RECYCLING COMPANIES



COMMERCIAL & RESIDENTIAL REFUSE HAULERS • TRANSFER STATIONS & HAULERS • MATERIAL RECOVERY FACILITIES
• RECYCLING • SWEEPING • COMPOSTING • LANDFILLS • PORTABLE SANITATION COMPANIES • SITE CLEAN-UP COMPANIES

Waste Haulers Insurance Program

ALLIANT SPECIALTY INSURANCE SERVICES

Alliant and WHIP team has focused on providing insurance and risk management services to the refuse industry for more than 20 years. It is because of this expertise that Wesco Insurance Company, a member of AmTrust Group, has partnered with ASIS to insure the refuse industry nationally.

Co-Broker Distribution

ASIS partners with independent agencies nationwide that specialize in serving the refuse industry. By making our program available to a limited number of well-qualified co-broker partners, we can ensure that program participants receive a high level of service.

For more information contact:
Marc Bergman (949) 660-5961
mbergman@alliantinsurance.com
www.alliantspecialty.com

PROPERTY • GENERAL LIABILITY • AUTOMOBILE • UMBRELLA • WORKERS COMPENSATION • INLAND MARINE • POLLUTION • BONDS



D-Lux Takes Part in Waste Expo 2012

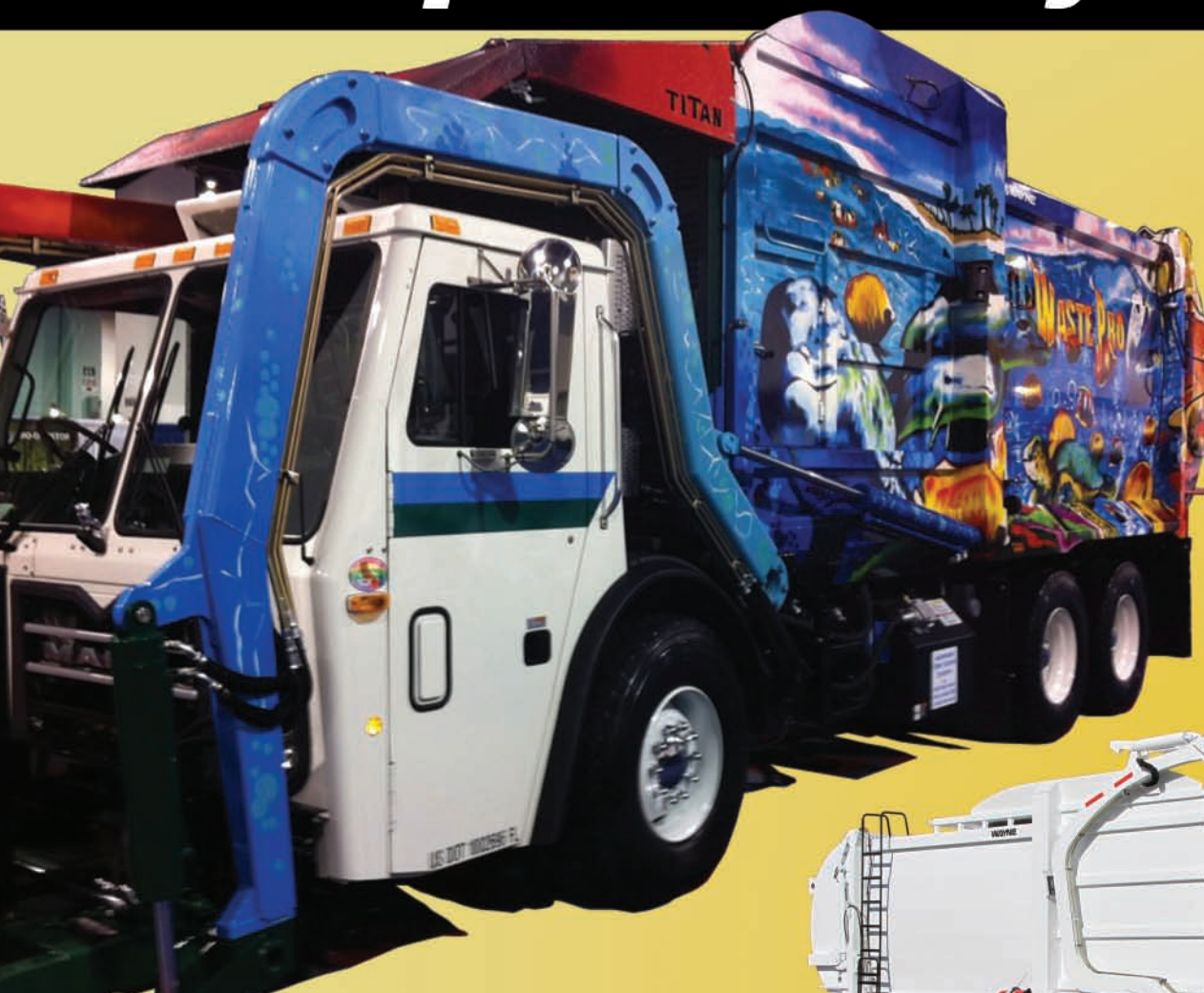
D-LUX SCREEN PRINTING (Holmen, WI) was proud to take part in their very first industry trade show at the Waste Expo 2012 in Las Vegas, NV in May. Participating in the successful three-day exhibition, D-Lux met with many new, potential customers, as well as existing clients. They are looking forward to participating in the next industry event in the near future.

For more information, call (800) 331-9061 or visit www.wastestickers.com.



CLICK HERE FOR
MORE INFORMATION!

Unique in Every Way.



**THANK YOU
WASTE PRO FOR
PURCHASING THE
MOST UNIQUE TRUCK
TO EVER BE IN THE
WASTE EXPO!**

TITAN

ENGINEERED FOR PERFORMANCE



The Best Value in a Commercial and Residential Front Loader.

HARDOX 450 STEEL CONSTRUCTION

OPERATE AT IDLE FUEL SAVINGS TECHNOLOGY OPTION

THE INDUSTRY'S FIRST FULLY INTEGRATED CUROTTO CAN AFL

SCRAPER TECHNOLOGY ON PACKER, ARMS & FORK CYLINDERS

ENGINEERED FOR OPTIMUM WEIGHT DISTRIBUTION FOR LEGAL PAYLOADS



WAYNE
ENGINEERING

**Tollfree: 888-66WAYNE
www.wayneUSA.com**



**CLICK HERE FOR
MORE INFORMATION!**

701 Performance Drive, Cedar Falls, IA 50613 • Phone: (319) 266-1721 • Fax: (319) 266-8207

Mark Your Calendar



JUNE 2012

19 – 20: Biogas USA East and Midwest

The Mid-America Club
Chicago, IL
www.greenpowerconferences.com

19 – 22: Air & Waste Management Association 105th Annual Conference and Exhibition

San Antonio Convention Center
San Antonio, TX
www.fivesenses.com/ee6

21: NSWMA Indiana Chapter 17th Annual Trash Can Open

Twin Bridges Golf Club
Danville, IN
www.environmentalistseveryday.org

24 – 26: 2012 Summer Conference

Sawgrass Marriott
Ponte Verde Beach, FL
www.swanafl.org

JULY 2012

1 – 4: CleanEnviro Summit Singapore

Sands Expo and Convention Center
Marina Bay Sands, Singapore
www.cleanenvirosummit.sg

13 – 17: National Association of Counties (NACo) Annual Conference and Exposition

David L. Lawrence Convention Center
Pittsburgh, PA
www.naco.org

17: Carolinas Chapter Meeting

Mid Pines Inn and Golf Club
Southern Pines, NC
www.environmentalistseveryday.org

18: Carolinas Golf Tournament

Mid Pines Inn and Golf Club
Southern Pines, NC
www.environmentalistseveryday.org

25 – 27: Pennsylvania State Recycling Association's 22nd Annual Conference

Lancaster Convention Center
Lancaster, PA
www.proprecycles.org

AUGUST 2012

14 – 16: WASTECON 2012

Gaylord National Resort and Convention Center
Washington, DC
www.wastecon.org

26 – 29: APWA International Public Works Congress & Exposition

Anaheim Convention Center
Anaheim, CA
www.apwa.net

27 – 29: Resource Recycling Conference

Hilton Austin
Austin, TX
www.resource-recycling.com/rr_conference/index.html

SEPTEMBER 2012

11 – 12: 2012 NSWMA Southeast Annual Conference

Renaissance World Golf Village Resort
St. Augustine, FL
www.environmentalistseveryday.org

16 – 18: Waste-to-Fuels Conference & Trade Show

The Mystic Marriott Hotel & Spa
Mystic, CT
www.waste-to-fuels.org

17 – 19: The IWSA World Solid Waste Congress 2012

Florence Congress Center
Florence, Italy
www.iswa2012.org

Contain Yourself.

/ Finally a container solution that meets your
needs and your quality standards. //



CCS - a quality manufacturer of custom and standard steel roll off containers, serving the environmental, construction, energy, waste and recycling industries. // Lewisburg, PA / 570-524-7835 // customcontainersolutions.com



**CLICK HERE FOR
MORE INFORMATION!**



WasteStickers.com

Print Solutions for Waste and Refuse Management

Decals!

Decals - Stickers - Labels

Same Day Shipping
on Hundreds of Products!

www.WasteStickers.com

800.331.9061

Custom Decals

**ABC
WASTE
777-7777**

250 Custom 2 Color Decals 18 x 24" \$443.00!
500 Custom 2 Color Decals 12 x 18" \$433.00!

Please call for a custom quote!

Circle Recycling Decals



WS6X6101 6 X 6" .59 each
WS8X8101 8 X 8" .69 each
WS12I101 12 X 12" .79 each
WS18I101 18 X 18" 1.79 each

Roll Off Containers
Top Sellers

Caution/Notice Combo Decal



WD514101
Size: 5 X 14" Price: .69 each

MAXIMUM LOADING LEVEL

WS336102

MAXIMUM LOADING LEVEL

9 x 12" Recycling & Container Decals

WS912104

Price: .59 each

**Commingled
Recyclables**

• Aluminum Cans
• Glass Bottles & Jars
(Green, Brown, Clear)
• Metal Cans
• Plastic Beverage
Containers

ONLY

WS91213



**RECYCLABLE
ITEMS
ONLY**

WS912101

**ALL CANS AND BOTTLES
MUST BE
EMPTIED AND RINSED
BEFORE PLACING IN
RECYCLING CONTAINERS**

WS912102

**CARDBOARD
ONLY
BREAKDOWN
BOXES**

WS912122



WS912110

**Mixed Paper
Recyclable Products
Only**

• Corrugated
Cardboard
• Computer Paper
• Newsprint
• Office Paper
• Spiral Notebooks
• Phone Books

Caution, Notice, & Danger Decals Size: 5 X 7" Price: .38 each

WDNOT101



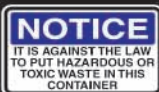
WDNOT109



WDNOT103



WDNOT112



WDNOT113



WDNOT106



WDNOT116



WDCAU101



WDCAU106



WDCAU111



WDCAU114



WDCAU115



WDCAU116



WDCAU122



WDDAN103



WDDAN102



WDDAN104



WDDAN105



WDDAN107



WDDAN112



WDDAN115



Recycling Message Decals Size: 3 X 18" Price: .49 each

WD318107

ALUMINUM CANS ONLY

WD318117

**CANS, PLASTICS &
BOTTLES ONLY**

WD318118

CARDBOARD ONLY

WD318131

FLATTEN BOXES

WD318132

GARBAGE ONLY

WD318133

GLASS ONLY

WD318134

**GLASS, PLASTIC,
ALUMINUM**

WD318140

MIXED PAPER ONLY

WD318150

PAPER ONLY

WD318159

PLASTICS ONLY

WD318160

RECYCLE

WD318165

TRASH ONLY

800.331.9061



CLICK HERE FOR
MORE INFORMATION!

www.WasteStickers.com



NSWMA Applauds New Florida Law Impacting Solid Waste

The Florida Chapter of the NSWMA applauded Florida Governor Rick Scott's decision to sign into law a bill that doubles the permit terms for solid waste facilities. The legislation extends the permit term for a solid waste management facility with a leachate collection system to 20 years from 10. Facilities without leachate collection systems can extend the term to 10 years from 5. NSWMA Florida Chapter Chair John Clifford stated, "The new law will save the industry millions of dollars. The language in this bill will help companies of all sizes in Florida; from the small business to the large international companies. The money saved with the extension of the permit renewal can be used by NSWMA members to invest in equipment, upgrade facilities and increase the workforce. This legislation maintains environmental protection, but does so without needless burdensome regulation. It is really a win-win for all involved."

NSWMA Florida Chapter Lobbyist Keyna Cory added, "The bill was a top priority for the region and the industry when it passed the state legislature in March. NSWMA worked with the Florida Department of Environmental Protection on the proposed language and they have been supportive of our efforts to extend the permit renewal timeline." The law will take effect July 1. The bill was sponsored by Florida Rep. Jimmy Patronis of Panama City.

For more information, visit www.environmentalistseveryday.org.

Don't Dump Yard Waste

Led by the U.S. Composting Council, the Sierra Club-Michigan, the Natural Resources Defense Council, Friends of the Earth and 12 other organizations sent a letter to Michigan's State Senators urging them to reject legislation (HB 4265 and 4266) that would effectively end one of Michigan's most important recycling laws. In the early 1990s, Michigan, along with 21 other states, banned grass clippings, leaves

and brush from landfills. These laws, said Michigan Recycling Coalition director, Kerrin O'Brien, have been responsible for more than one-third of what America successfully recycles, have preserved landfill space, reduced greenhouse gas emissions, restored fertility to our depleted soils, and helped create a sustainable composting industry. Composting a ton of yard trimmings, as compared to dumping grass and leaves in landfills, will, according to an EPA letter to the Michigan Department of Environmental Quality in 2010, generate five times as many jobs at recycling firms which pay their employees \$1,500 more each year in wages. Institute for Local Self Reliance, Co-Director, Brenda Platt said, "It would be utter folly to favor polluting landfills over compost manufacturing, an expanding industry and job sector in Michigan."

Michael Virga, Executive Director of the US Composting Council, said that the 16 member national coalition had organized to draw public attention to the serious threat to America's recycling success story that is posed by these bills. JD Lindeberg, PE and President of Ann Arbor-based Resource Recycling Systems refuted waste industry claims that it was more beneficial to landfill organics in order to generate electricity from the methane gas produced in landfills. Lindeberg pointed out that, "Yard waste disposed in landfills will not have a measurable effect on the generation of renewable energy because most of these materials decay before landfill gas collection systems have been fully implemented." EPA's letter also rejected the waste industry claims that landfilling was better than composting, stating: "reversing landscape waste bans would increase the amount of methane entering the atmosphere."

For more information, visit www.michiganrecycles.org.

A \$50,000 EPA Environmental Education Grant Will Teach Students to Convert Cooking Oil to Fuel

The Gulfsouth Youth Biodiesel Project is training 70 out-of-school youths to collect and recycle used cooking oil into biodiesel fuel. Operation REACH, Inc. is receiving \$50,000 from the EPA's Environmental Education Grants program to introduce students to opportunities in the Green Collar workforce. The participants will learn about diesel engines and the process of converting used cooking oil and raw feedstock into biodiesel fuel. Operation Reach has commitments from Zeon Global Energy and the Goshen Energy Initiatives to employ graduates, and is partnering with several local restaurants and industrial kitchens across Jefferson and Orleans parishes to collect used cooking oil.

For more information, visit www.epa.gov/education/grants.html.

Insurance Is All About Getting What You Pay For

Euclid Insurance Agencies offers you more value for your insurance dollar. We write Nationwide.

- Competitive Pricing
- Responsive Service
- Broad Coverage
- Choice of Markets
- Aggressive Claims Handling



Take advantage of our two decades of experience as an insurance broker to the Waste and Recycling Industries. Contact Euclid Insurance Agencies today to find out how we can help you get more insurance value for your money. Call toll free: **800.407.4077** or visit our website for more information: www.euclidinsuranceagencies.com



OFFERING A FULL RANGE OF INSURANCE PRODUCTS FOR:

- Commercial/Residential Waste
- Recyclers
- Construction Debris Haulers
- Material Recovery Operations
- Medical Waste Transporters
- Landfills
- Transfer Stations
- And Much More!!



CLICK HERE FOR MORE INFORMATION!

TOUGH. DEPENDABLE.

SIDE-LOAD REFUSE BODIES

Large Selection of
Refuse Equipment!

New and Used Trucks,
Parts & Service.

Refuse Equipment
& Parts

Containers
& Parts

Hydraulic
Cylinders

Equipment
Services &
Repairs



CHAMPION™
CHALLENGER™

PROUD MANUFACTURER AND DISTRIBUTOR OF THE SEC CHAMPION AND SEC CHALLENGER SIDE-LOAD REFUSE BODIES.



P.O. DRAWER 219 • FM 1384 & HWY 156
JUSTIN TX 76247

800-886-7932

www.southwesterntrucks.com

INDUSTRY PROVEN SALES AND SERVICE SINCE 1987



CLICK HERE FOR MORE INFORMATION!



American Waste Control: No Signs of Slowing Down

Reacting proactively to a struggling economy by IMPROVING EFFICIENCIES IN THEIR OPERATIONS AND LOOKING FOR NEW OPPORTUNITIES, American Waste Control has ensured strong company growth and a positive path.

RANKED AS ONE OF THE TOP 50 COMPANIES IN the U.S.¹, Kenneth Burkett started American Waste Control (Tulsa, OK), a solid waste commercial collection company, with only a single truck and one route after selling his residential hauling company in 1980. In 1987 he opened Tulsa Recycle and Transfer—the first permitted transfer station and recycling center in Tulsa. In 2000 he opened American Environmental Landfill, specializing in solid, liquid and special waste, to complete an integrated waste solution for his customer base.

Now, as a locally owned company with 190 employees, 80 trucks, 10,000 plus customers and revenue of more than \$40 million, American Waste Control has been able to gain market share even when competing with the big national waste companies by tailoring their services to each customer's individual needs and responding to them

quickly and efficiently. Says Tom Hill, CEO, "Our ranking as one of the top 50 companies in the U.S. is a result of our dedicated employees, our complete commitment to customer service, and our efforts to provide the best in clean and environmentally friendly operations." Although they cover areas in Arkansas, Texas and Kansas, 80 percent of American Waste Control's business comes from Northeast Oklahoma.

Weathering the Recession Storm

Although American Waste Control had a definite slowdown in growth after 2008, Oklahoma was lucky enough to not experience the large bubble burst that many States encountered due to the nationwide stagnant economy. "As a company, we've made a concerted choice to react proactively to the downturn by improving efficiencies in our



Recycling center with FEL truck.
Photos courtesy of
American Waste Control.






ZR
zero radius

Demand the ZERO

The McNeilus ZR-Series full-eject, automated side loader puts the power and simplicity of the most straightforward automated arm in the hands of your operators, increasing your route efficiencies almost immediately. With its zero-radius, side-loading arm, narrow streets and alleys are no longer an issue. You can also easily handle up to 1,500 containers per day with minimal maintenance and reduced cost of ownership.

mcneilusrefuse.com • 507.374.6321

Follow us on:   

McNeilus

An Oshkosh Corporation Company



© 2010 McNeilus Truck and Manufacturing Inc. McNeilus, the McNeilus logo, and ZR are registered trademarks of McNeilus Truck and Manufacturing Inc., Dodge Center, MN, USA. Oshkosh is a registered trademark of Oshkosh Corporation, Oshkosh WI, USA. All other designated trademarks are the property of their respective owners.

CLICK HERE FOR MORE INFORMATION!

**POWER
OF
zero**

American Waste Control: No Signs of Slowing Down



Tulsa Recycle and Transfer 8-acre facility.

operations and looking for new opportunities to capture more market share. The resulting investments we've made have ensured a strong economic foothold and put us on a positive path toward solid company growth," says Hill.

In the last few years, American Waste Control has been able to successfully weather the economic downturn and even position themselves for new growth as they await a surging nationwide recovery. The time has been used to design and implement a new \$6 million Materials Recovery Facility (Mr. Murph) that has helped position American Waste Control as an undisputed leader in the Tulsa recycling market. "Our Mr. Murph is a complete branding program that includes a Web site and an innovative school curriculum," says Hill. "It helps us educate businesses and families about waste recycling and how the MRF technology works to positively impact the environment." Hill believes this success has effectively positioned the company to compete and gain the 10-year recycling contract recently awarded for the entire residential community for the City of Tulsa.

In addition, Hill points out that the recent recession also meant American Waste Control was able to secure superior contractors often not available during robust economic times. "We took advantage of this by building new cells, a scale house, roads and solidification processes at our sub-title D landfill. We even developed new innovations, such as our process for capturing methane gas from drilled wells in our landfill, converting it into electricity to power over 4,000 homes."

Equipment also came at a more reasonable price for the company due to the economic downturn. They were able to purchase used equipment (pre-crusher, compactors, containers, trucks) at prices far below market value and upgrade customer sites or stockpile the equipment until demand rose. "These upgrades have helped us solidify current customer contracts and provide further incentives for contract extensions," explains Hill.

He also points out, "I am thankful that our company's owner, Kenneth Burkett, understands that the majority of revenue must be re-invested into a company in order to strengthen its base and give it a competitive edge. Now that the economy is recovering, we are in a position to capture additional market share with increased capacity, new processing facilities and pricing below the competition based on prudent purchasing."

Giving Back to the Community

With increased profitability, American Waste Control has found new opportunities to give back to the community they serve. Over the last five years the

company has donated more than \$3 million dollars to the American Therapeutic Riding Center (www.ATRCOK.org) located outside of Tulsa by Sand Springs. It is a non-profit organization, founded by the company's owner and his wife in 2007, that provides help for the physically and emotionally challenged in Oklahoma through licensed riding therapy and other learning opportunities. Accepting people of all ages, the riding center has touched and changed lives of numerous children and adults. "We've seen people go from wheelchair bound to assisted walking by strengthening their core through therapy. Hundreds have gone through this therapeutic program with successful results," says Hill. "Many of our employees have also invested thousands of hours into this incredible organization to help touch those struggling with the difficulties of life."

In addition, American Waste Control participates in almost every one of their community events, from sponsoring golf tournaments and participating in walk/runs to donating funds to organizations like the Tulsa Food Pantry, or events like the Rooster Days Festival, etc. Not only have they provided uniforms for little league softball, baseball and football, as well as equipment and uniforms for the grade schools, but they have also built entire walking trails for schools and put in playground equipment. American Waste Control is also one of the main sponsors to provide a donation for the annual 4th of July fireworks display as well as tenting and waste disposal. "In the last year, we've developed a program called 'Trash to Cash', where non-profit organizations can place a free container called a Mr. Murph at their location. Every time we empty it for them we pay \$5 into their organization. Through this program, we have given \$400 to \$500 a month to numerous organizations, whether it be schools, churches, Boy Scout events or the Tulsa Teacher's Credit Union," says Hill.

American Waste Control also does a lot of public education and tours as well. When the company started the Mr. Murph program, they put up 15 billboards that said all of the public schools could have free tours to their facilities. The company would pay for the buses, the drivers, the teachers and the volunteers. The first steps to arranging a tour is for the school to download the appropriate lessons plans from www.feedmrmurph.com, which introduce the children to recycling, its benefits, etc. Then, the kids are brought to the recycling center where they get a tour of the facility, see an MRF in progress, meet Mr. Murph and bring recyclables from home that will go through the MRF. Afterwards, they go back to school and discuss in small groups what they saw and develop and implement some type of recycling program for that particular school or

district. "This is our way of bringing up new recyclers from the ground up and it has been very successful," says Hill. He goes on to point out that the company also has brought in clients, potential and current customers to show them how a recycling program can reduce trash costs, help the environment and how the participating company can get recognition by being a certified Mr. Murph recycler.

Training and Safety

Realizing they didn't do safety well in-house since people tend to get busy and it gets neglected, American Waste Control has been contracting its safety training to an outside organization since 2009. "When you get into all the safety resources that are out there, the training tools, all the things that can be done, we don't do it in-house well," says Hill. "We find that we get busy and it gets put off. It is not our area of expertise. On the other hand, the safety trainer that we work with is a risk auditor, an insurance writer, a safety coordinator—he does this for a living so he's got more resources available. He comes in four times a month and not only does he writes lesson plans, but we also get powerpoint presentations, videos and toolbox meetings, taking safety training to a whole new level. The best part is he only gets paid when he is actively involved. He's better than anyone that I could have internally."

When it comes to new employee training, American Waste Control takes it very seriously by using a buddy system where your trainer is your lifeline. By putting new hires with skilled experienced, safety minded individuals that will teach them the techniques, the company guarantees that they are trained in the proper way of doing things. "They get reviews from their supervisor, manager, get their sign off sheets from their buddy and that gives us a better feel when that person is cut loose to go off to operate equipment on their own. Every person is different and we rate them by their showing proficiency within the category not time within the grade," stresses Hill.

He continues, "If you treat your people right, your people will be right by you. This company was built through quality people. Until you understand the value of your employees, you will never understand how valuable that person is to you in building your company. If you compensate them according to their value and treat them with respect, your company will grow beyond you and that's what's happened here."

A Changing Industry

Some challenges that American Waste Control has faced are weights and, of course, the tighter regulation from government agencies. Hill also stresses that they are finding the fact that companies are touting "zero landfill" a little concerning because while they are reducing MSW by incinerating it and you are collecting energy, a third by volume of what goes in the front door still goes out the back door.



Mr. Murph workers inside the recycling center.

An advertisement for ABUTECH, Advanced Burner Technologies. The background features large industrial storage tanks and a blue truck. The text includes the company logo, name, and contact information.

ABUTECH™ Advanced Burner Technologies

ENCLOSED, LOW EMISSION, LANDFILL GAS FLARES

- Proven and Tested DRE's above 99.996%
- Complete Systems with Blower Skid, Controls, Datalogging, Etc.
- Site Installation, Testing, and Maintenance Available

ABUTECH™
Advanced Burner Technologies
2959 Cherokee Street, Suite 101
Kennesaw, GA 30144
Phone: 770.846.0155
Fax: 770.499.7455
www.abutech.com

American Waste Control: No Signs of Slowing Down



TRC Arena and therapy barns with landfill in far background.

Hill does point out that because the waste industry is an ever-changing market, American Waste Control is seeing more recycling. However, in Oklahoma, which is one of the last places in the U.S. to stress recycling, Hill explains that it was a big challenge to meet their goals. Not only does the State have plenty of land for landfills, the landfill tipping fees are far less than the normal of \$60 to \$80 per ton on the coasts. "What pushes recycling to being profitable is when you can save \$60 on a ton of trash. When you are on the coasts and you can collect the recyclables and drive them a mile down the street to a manufacturer that will use the material, there are no transportation costs. However, when you are in Oklahoma and you have to ship the recyclables to the coasts, there went all your profit in transportation," says Hill. "So, first we need to teach the people to recycle, second, we are fighting the transportation costs to a facility that will reuse the recycling materials, and, finally, we are fighting the implementation costs of the recycling center. We have positioned ourselves

at the leading edge of a developing market ... but today it is still a struggle."


For now, American Waste Control is finishing up their expansion of the MRF and is in the process of opening another recycling and transfer station across the metropolitan area. Says Hill, "While it's true no one wants an economic slowdown, companies can use the time to position themselves effectively with proper planning and attitude. American Waste Control is in an excellent position financially because of this and is stronger today due to our willingness to take advantage of opportunities and pursue innovation even when others we're scaling back and retreating." | **WA**

For more information about American Waste Control, contact Tom Hill, CEO, at (918) 446-0023.

Note

1. The 2011 Waste Age 100.

Software For Residential, Commercial, and Roll-Off Customers!



- Customer Service
- Optimized Routing
- Visual Dispatch
- Asset Management
- Disposal Tracking
- Customer Billing

A Complete Software Solution
Please contact us to schedule a live Internet demo.

www.routeoptix.com
(866) 926-7849

info@routeoptix.com
(519) 896-9433

SHOP!
CLICK HERE FOR MORE INFORMATION!



The Heat Is On

Jim Olson, Jerry Flower and Will Flower

Be alert and be prepared. HEAT-RELATED ILLNESSES ARE PREVENTABLE.

SUMMERS ARE NOTORIOUS FOR BEING HOT AND

humid and each year thousands of workers become sick from exposure to heat. Some even die. Sanitation workers, including drivers, heavy equipment operators and laborers, are highly susceptible to heat-related illness because they spend a significant portion of their workday outdoors where they are engaged in physically demanding jobs. Additionally, mechanics and welders can also be at risk because they frequently work near hot machinery and wear heavy protective clothing.

Fortunately, heat-related illness is preventable. With education, training and following some simple tips, workers can be protected. In 2011, the Labor Department launched a nationwide campaign to protect

workers from heat-related illness. The message was very simple—water, rest and shade. Secretary of Labor, Hilda L. Solis, stated, “If you’re working outdoors, you’re at risk for heat-related illnesses that can cause serious medical problems and even death. But heat illness can be prevented.”

NSWMA also reminds its members of the dangers of heat stroke. “As we move into the summer months, it is very important for workers and employers to take the steps necessary to stay safe in extreme heat,” said David Biderman, director of NSWMA’s safety programs. “Drinking water often, taking breaks and limiting time in the heat are simple, effective ways to prevent heat illness.”



Available Resources to Help Keep Employees Safe

The Heat Watch Web Page

The National Oceanic and Atmospheric Administration (NOAA) is a federal agency focused on the condition of the oceans and the atmosphere. They have an excellent Web page to help employers and workers forecast extreme temperatures that can lead to heat related illness. The Heat Watch Web page is available at www.noaawatch.gov/themes/heat.php.

Free Worker Education Resources

The Occupational Safety and Health Administration (OSHA) has excellent educational resources available to help keep workers safe during the summer heat. There are also training tools for employers to use and posters to display at their worksites. Many of the new resources target vulnerable workers with limited reading skills or who do not speak English as a first language.

OSHA has also developed a Web page to provide workers and employers with useful, up-to-date information on occupational heat exposure. Visit the following Web site to get information on heat illness—including how to prevent it and what to do in case of an emergency—for workers and employers: www.osha.gov/SLTC/heatillness/index.html.

OSHA provides a free onsite consultation for small businesses with fewer than 250 workers at a site (and no more than 500 employees nationwide). Onsite consultation services are separate from enforcement and do not result in penalties or citations. To locate the OSHA Consultation Office nearest you, call (800) 321-6742 or visit www.osha.gov.

The Heat Is On

How the Body Keeps You Cool

When a person works in a hot environment, the body regulates its temperature by getting rid of excess heat to maintain a stable internal temperature. It typically expels heat primarily through circulating blood close to the skin and through sweating. During hot weather, especially in climates with high humidity, sweating may not be enough. When the air temperature is close to or warmer than normal body temperature, cooling of the body becomes more difficult. If blood circulating near the skin cannot lose its heat, sweating becomes the main way the body cools off. But sweating is effective only if the humidity level is low enough to allow evaporation and if the fluids and salts that are lost are adequately replaced.

When the body cannot get rid of excess heat, it begins to store the heat and the body's core temperature increases. The heart may start to pump faster as it attempts to keep blood moving near the skin giving an individual a flushed red appearance. As the body continues to store heat, the core temperature rises and the person may begin to lose concentration and have difficulty focusing on a task, may become irritable or sick, and often lose the desire to drink. At this point, medical attention may be needed to help the victim and prevent a more serious illness. If not treated, a worker may experience heat stroke, will stop sweating and may faint or pass out as the body attempts to slow down. Once a victim reaches this stage, emergency medical intervention is needed to help save the victim's life.

Take Precautions

As we get into the hotter months, workers and supervisors need to be aware that extreme heat can lead to serious health problems. It is important to prepare for the heat and guard against injury. Employers and supervisors should educate workers about the dangers of heat and train them to notice the signs of heat stress. Injury by heat illness can be prevented by remembering three simple words: water, rest, shade. These simple guidelines will greatly reduce risk to heat illnesses for workers in the waste and recycling industry. Employees and workers should engage in the following activities and follow simple tips to protect those workers who are at risk:

- Training employees—Employers should include training on both the precautions and symptoms of heat illness at all safety briefings before and during the summer months.
- Allow workers to get acclimated to heat—Workers who are suddenly exposed to working in

a hot environment face additional and generally avoidable hazards to their safety and health. New workers and those returning from vacation or time away from their jobs are especially vulnerable. Workers should gradually build up their tolerance to heat over five to seven days (may take up to one to two weeks). Workers who are new to working outdoors in the heat or have been away from work for a week or more may need special reminders about the prevention of injury from heat. Allowing for more frequent breaks helps new workers, and those returning to a job after time away, build up a tolerance for hot conditions.

- Take breaks—Employers should encourage workers to take more frequent breaks during extremely high temperatures. Employers who fail to provide such breaks may be seriously endangering the safety of their workers.

- Stay hydrated—Drinking enough water is critical. In the course of a day's work in the heat, a worker may produce as much as 2 to 3 gallons of sweat. To avoid dehydration, make sure a worker's water intake during the workday is about equal to the amount of sweat produced. Most workers exposed to hot conditions drink fewer fluids than needed because they're just not thirsty. Workers in extreme heat should drink 5 to 7 ounces of fluids every 15 to 20 minutes to replenish the necessary fluids in their bodies. Do not drink alcohol or energy drinks (highly caffeinated drinks), which can make heat illness worse.

- Avoid overexertion—During periods of extreme heat, workers need to pace themselves and their workload. Avoid exertion during the hottest parts of the day. Employers need to understand that during extreme temperatures a route may take a little longer to complete due to workers' need for more breaks.

- Find shade—Workers who work in the direct sun such as employees at a landfill where there are no trees or shade can be at risk to heat illness. Getting out of direct sunlight and finding some shade can be very helpful in allowing the body to regulate itself.

- Keep an eye on the weather—Employers and employees should listen to weather reports and pay attention to the Heat Index which tells how hot it feels in the shade when relative humidity combines with the air temperature. Employers and employees should be extra careful when the heat index is 90 degrees or above. They should also pay attention to rising temperatures, increasing humidity, strong sun and no air movement. These natural conditions can contribute to heat stress among workers.

Severe Duty Reliability... Dragon Delivers

Single
Container
Trailers

Two
Container
Trailers

Roll-Off Boxes

Roll-Off Hoist

Find out why so
many customers
have relied on our
products to deliver
load after load.

At Dragon...
we make it happen.



**CLICK HERE FOR
MORE INFORMATION!**



DRAGON

Make it happen.

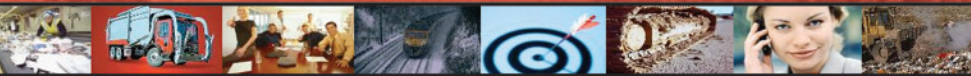
U.S. owned and operated. Founded in 1963.

1-800-231-8198

www.dragonproductsltd.com

WIH RESOURCE GROUP

Environmental & Logistical Solutions™



Services and Solutions for Better Business.

- Solid Waste Management Planning Solutions
- Transportation & Logistics - Railroad, Trucking and Tug & Barge
- Operational Performance Assessments (OPAs) - MRFs & Transfer Stations
- Vehicle Routing Software and GPS Integration Fleet Management
- Solid Waste and Environmental Expert Witness Testimony
- Waste Diversion (disposal cost avoidance) & Material Recovery
- Transporting Waste-By-Rail
- Strategic Business Program Development and Implementation
- Equipment Sales and Leasing
- Effective Cost Control Management Systems
- Start Up Business Solutions - Business Plans, Financial Management and Sales & Marketing

Equipment Sales & Leasing

We have access to a wide range of solid waste equipment including: railroad equipment, railcars, intermodal containers, container handling equipment, trailer tippers, refuse trailers, scales and a wide assortment of other equipment available for leasing or outright purchase.

Waste by Rail Solutions

We find a creative, innovative, practical transportation and disposal solution across the United States and in Canada. We have extensive experience in Waste-by-rail offers to cities, counties, states, companies, manufacturers and others dealing with everything from landfill closures to toxic waste spills.

Services & Solutions

We provide client-specific solutions in environmental, recycling, sustainable development, transportation, logistics and solid waste management for a range of clients, whether a municipality, publicly traded or privately held organization.

Waste Business Solutions

We offer a range of waste management business solutions to commercial and industrial waste generators as well as counties, cities and other municipalities looking to optimize their solid waste management. We evaluate your current operations, assess your needs, help identify goals in critical areas and develop a plan to reach the new goals and assist in the implementation.

Mergers & Acquisitions (M&A) Services

WIH Resource Group, Inc. is a diversified consulting firm providing, among other service offerings, full service mergers and acquisitions consulting that specializes in business valuations, due diligence, appraisals, transaction support, post transaction completion support services, strategic business planning, implementation and other management consulting services.

WIH RESOURCE GROUP
Environmental & Logistical Solutions™

www.wihrg.com | (480) 241-9994 | admin@wihrg.com



CLICK HERE FOR MORE INFORMATION!

The Heat Is On

• Pay attention to clothing and work conditions—Workers and supervisors should also be alert when protective clothing or gear is worn, work is strenuous and when there are no controls, such as fans, being used to reduce the impacts of equipment that radiates heat.

• Eat Right—Avoid heavy meals. Light meals, which include fruits and vegetables, will benefit workers.

• Be mindful of hours of service—Workers who are logging long work hours in extreme heat and high humidity can be especially at risk of heat related illnesses. Carefully monitoring workers' hours of service can help identify potential problems related to exposure to extreme conditions.

Stages of Heat Related Illness

There are three stages of heat related illness:

1. Heat cramps often happen due to drinking large quantities of water. Heavy sweating combines the loss of water and salts in the body. You will get muscle cramps, the skin will be moist and warm and breathing heavy. Watch your exertion and hydrating with sports drinks can help, just watch how much you consume. Again, avoid highly caffeinated energy drinks. Workers should try to replenish liquids with the same amount that they sweat out.

2. Heat exhaustion is a form of shock, and is the next phase the body goes into. Breathing will be rapid and shallow; the skin will be cold and clammy. It is important to cool the person down and get fluids in a conscious person. Never try to give fluids to an unconscious person.

3. Heat stroke is a true emergency and medical support must be provided ASAP. Breathing will be deep and then shallow, the skin will be hot and dry, and no sweating; many times the person will become unconscious. Cool the person as rapidly as possible and get immediate medical help.

Know the Signs

It's important to know and look out for the symptoms of heat related illness. Employees must be aware of the symptoms for themselves and need to keep a careful watch on their fellow workers during hot weather. The following is a list of warning signs that employers, supervisors and employees should watch for as an indication of potential injury from heat:

- Extremely red skin
- Pale skin
- Muscle cramps
- Weakness
- Dizziness or stumbling
- Sweating profusely
- Rapid pulse
- Fast, shallow breathing

An employee experiencing any of these symptoms may be experiencing heat illness and should take immediate action to

get out of the heat quickly and rest in a cool, shady place. If the symptoms persist and an employee does not feel better within 30 minutes, contact an experienced health care provider.

If heat exhaustion isn't treated, it can progress to heat stroke. The first sign of heat stroke can be no or limited sweating. In these cases, immediate and emergency actions are required to save the victim's life. If any of the following conditions exist, immediate medical treatment must be provided:

- Skin that feels hot and dry, but not sweaty
- Confusion or loss of consciousness
- Severe headache
- Nausea or frequent vomiting
- Shortness of breath or trouble breathing

Heat stroke is much more serious than heat exhaustion. People with heat stroke may have seizures or go into a coma. If you suspect heat stroke, call 9-1-1 immediately.

Move the victim to a cooler location, remove heavy clothing, fan the body and wet it down with a cool sponge or cloth, and encourage the individual to drink cool fluids. At the hospital, the victim probably will be given fluids intravenously. Having heat exhaustion or heat stroke makes you more sensitive to heat illness for about a week afterwards.

People taking certain medications may also be at greater risk to heat related industry. There are many medications that can also put you in danger of heat stroke including:

- Allergy medicines
- Cough and cold medicines
- Some blood pressure and heart medicines
- Diet pills (amphetamines)
- Irritable bladder and irritable bowel medicines
- Laxatives
- Some mental health medicines
- Seizure medicines
- Thyroid pills
- Water pills

Employees should always talk with their doctor about what medicines they are taking. He or she can tell you if your medicine puts you at risk for heat stroke.

Heat related illness is a serious matter especially in the summer months. Taking precautions, knowing the signs to watch for and planning for an emergency situation can save lives. | **WA**

Jim Olson is the Vice President of Safety and Environmental Compliance for Republic Services, Inc. (Phoenix, AZ). He is responsible for all of the safety programs which affect 30,000 employees at Republic Services, Inc. Jim can be reached at jolson@republicservices.com

Jerry Flower is a certified Emergency Medical Technician, firefighter and former fire chief. He currently serves as a Fire Marshal in Nassau County, NY in the Hazardous Materials Division.

Will Flower has 28 years of experience in the field of environmental protection. He has worked at the Illinois Environmental Protection Agency, Waste Management and Republic Services. Will can be reached through his Web site at www.willflower.com.

Stop Wasting Your Insurance Dollars.



IOA's Environmental Division specializes in insurance for:
HAULERS (Residential or Commercial) • RECYCLING OPERATIONS
MRF'S/ TRANSFER STATIONS/ LANDFILLS • LOGISTIC COMPANIES
DEMOLITION CONTRACTORS • And Much More

Worker's Comp, Auto, GL, Pollution, Umbrella, Captives,
Property, Bonds, Health Insurance, 401(k)

Contact:
Nathan Brainard
Vice President
Environmental Division

We Write Insurance in All 50 States!

1-800-243-6899 EXT: 15287
Nathan.brainard@ioausa.com
www.nathanbrainard.ioausa.info



CLICK HERE FOR MORE INFORMATION!

TRUX

Route Management Systems Inc.

Haul-IT

Software for Waste Hauling

Weigh-IT

Software for Facility Operations

Maintain-IT

Software for Asset Maintenance

free
demo



Visit us at **www.trux.com**

Or Call 1-866-TRY-TRUX
879-8789

Our Best Technology Goes to Waste



CLICK HERE FOR MORE INFORMATION!



Carbon Offset Credit Hurdles for Municipal Solid Waste Projects

Cami Van Abel

Municipalities interested in pursuing carbon offset credits in conjunction with the GCCS operation SHOULD THOROUGHLY EVALUATE THEIR CURRENT OPERATION PRACTICES, ALONG WITH STAFF CAPABILITY to properly implement the protocol requirements.

MUNICIPALITIES PLANNING FOR SOLID WASTE

carbon offset credit projects may think the biggest hurdles end with system construction. However, several factors, which may be expected or unexpected, can potentially throw obstacles up during the process of carbon offset credit verification. This hindrance can be especially problematic for projects with a planned revenue stream from carbon offset credits for construction capital paybacks and/or system upkeep and maintenance. This article describes hurdles that have occurred with recent municipal solid waste carbon offset credit projects, along with issues that typically come up during the project verification.

As of late, one of the biggest concerns with carbon offset credits are the voluntary market conditions and the role solid waste projects play in the market. Regulatory volatility, along with a saturation of landfill gas collection and control projects, have led to a decrease in the value of carbon offset credits from these types of projects. From an operational standpoint, site-specific conditions may not conform to sector-based performance standards and protocols. Being pro-active about checking current protocols and performance standards

against project construction specifications (if applicable) or current site conditions will likely alleviate potential problems that could arise during project verification.

Another important aspect of municipal solid waste carbon offset projects is monitoring and data collection. Engineering consultants can provide vital technical guidance, but most likely municipality staff will perform the system monitoring and data collection. Strong oversight of the data collection procedures and monitoring results may be necessary in the beginning of the project to ensure the data is accurate and site specific.

Program Goals and Protocol Development

For the discussion of issues that may arise with the project verification, it is important to understand the goals of the carbon offset credit program your project will be registered and verified with. The Climate Action Reserve (Reserve), a highly regarded national carbon offsets program, is a common choice for potential carbon offset project developers. The Reserve's core objective is to develop standardized approaches for industries to

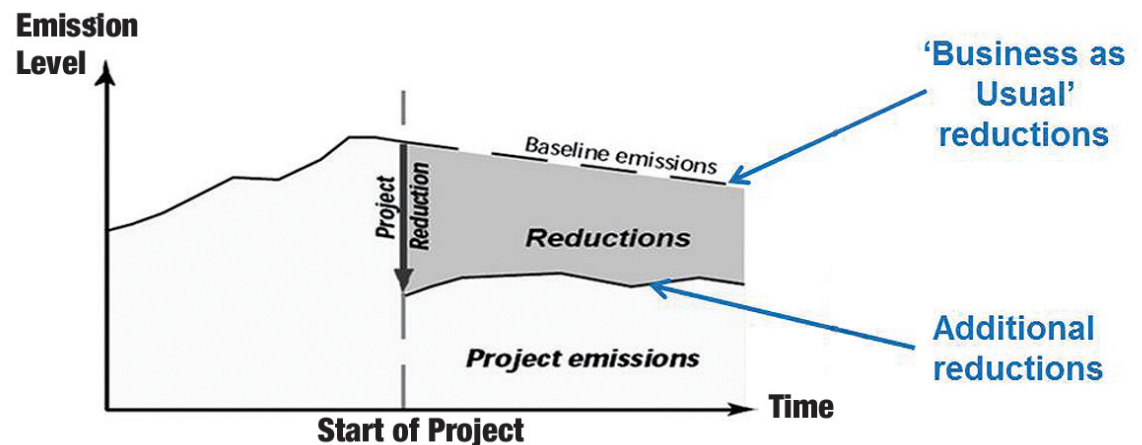


Figure 1: Additionality of emission reductions. Image courtesy of SAIC.

SANITATION GRAPHICS .com

LOW COST
HIGH QUALITY
FAST TURNAROUND
ScreenTech
IMAGING
a division of Roeda Signs, Inc.



- Container Decals
- Portable Toilet Decals
- Recycling Decals
- Safety Decals
- Single Stream Decals
- Conspicuity Tape
- 1000s of Stock Decals

MAXIMUM LOADING LEVEL

MAXIMUM LOADING LEVEL



Stock up for 4th of July!
Visit our webstore for all flag decals available



*Promotion valid thru June 30, 2012



CLICK HERE FOR MORE INFORMATION!

www.sanitationgraphics.com

800.829.3021

POWERED BY **ScreenTech**
IMAGING
a division of Roeda Signs, Inc.

comply with in order to attain greenhouse gas (GHG) emission reductions. The principles the Reserve has developed in their approach to standardizing offset crediting include:

- Determining the eligibility and additionality of projects using standard criteria
- Quantifying the GHG emission reductions using standard baseline assumptions, emission factors and monitoring methodology

The concept of “additionality” is an important one within the standardized protocol program of the Reserve. The reduction of GHG emissions associated with the project must be additional to what would normally occur. Therefore, not only are regulatory standards (i.e., whether the project is voluntary or required by a regulation) important, but also equally important are current common practice standards within the industry. Baseline emissions or “business as usual” emissions are developed and used to quantify the emission reductions achieved through the implementation of the project. This concept is depicted in **Figure 1, page 24**.

Therefore, in order for the project to be eligible to receive offset credit for GHG reductions through the Reserve, it must not be required by federal, State or local regulations, and it must meet a performance threshold that has been developed by the Reserve. The project standards are issued by the Reserve by sector-based protocols.

Landfill Project Protocol Compliance

Municipalities installing landfill gas collection and control systems (GCCS) with the intention of obtaining carbon offset credit revenue should review and be familiar with the Reserve Landfill Project Protocol (Protocol) prior to operation. Equipment standards, monitoring and calibration practices are described within the Protocol and may not readily conform to the capabilities and schedule of the staff responsible for the system operation and monitoring. It is important to keep in mind the goals and intent of the Reserve standardized protocol approach when developing the monitoring, record-keeping, calibration and maintenance manual for the site's GCCS to ensure that the emission reductions are conservative, accurate, transparent and additional. A thorough review of the Protocol before the GCCS is installed will help municipalities obtain the most carbon offset credits they can if they comply with all aspects of the Protocol requirements. A discussion of the common issues that have resulted in a reduction in the amount of credits allotted to GCCS projects follows.

Record-keeping

To comply with the Reserve's principles of crediting emission reductions that are real and verifiable, record-keeping of the GCCS monitoring and operation are very important. Without proper, tangible documentation, the Reserve will not be able to verify that the emission reductions have occurred. It is crucial for facilities to maintain monitoring records, equipment calibration certifications, GCCS operation records and equipment manuals to provide evidence that the GCCS has been managed in accordance with the Protocol. There are opportunities to deviate from the Protocol, with the Reserve's approval, for record-keeping procedures, but they are reviewed on a case-by-case basis and may result in a discount factor being applied to the emission reduction credits for the period where the Protocol deviation occurred. In order for projects to obtain the maximum amount of emission reduction credits, it is important to understand and comply with the record-keeping procedures described in the Protocol.

Equipment Inspection and Calibration

The current version of the Protocol involves a more risk-based approach to ensuring that the monitoring equipment is calibrated to the appropriate standards and reads the flow data accurately. However, it is good practice to inspect and verify the monitoring equipment quarterly (and provide for offsite calibration if measuring outside the 5 percent margin of error) to ensure the accuracy of the equipment. Records of field checks should also be maintained to show the good-faith effort of the facility to ensure the accuracy of their monitoring equipment. Equipment manuals describe best-practice operation and recommended maintenance and calibration procedures. Staff involved with the GCCS monitoring and operation should be familiar with the guidelines included in these manuals.

Equipment Standards

The standard conditions of the monitoring equipment should be reviewed prior to the GCCS startup. In the emission reduction calculations, the Reserve uses a standard temperature of 520 degrees Rankin and a standard pressure of 1 atmosphere. Monitoring equipment standard temperature may vary (though typically most equipment uses a standard pressure of 1 atmosphere) and emission reduction calculations will require a conversion if the monitoring equipment is not calibrated to this standard. Though it is not necessary to specify that the equipment is laboratory calibrated to this standard, it is important to be aware of the equipment operating standards to ensure proper accounting of emission reductions.

Another important aspect of equipment standards is reviewing the GCCS flare operating parameters. The minimum temperature of the flare at which methane destruction occurs should be reviewed and compared with the flare operating records. There may be a calibration error in the tracking equipment, and if the records show an operating temperature below the minimum methane destruction temperature listed in the flare equipment manual, the facility may not be able to claim credits for this operating period. In general, the monitoring data should be reviewed against the equipment operation parameters to ensure the data is reliable.

Multiple Destruction Devices

Facilities may use more than one equipment destruction device to combust the collected methane. The facility may use a landfill gas (LFG) fueled engine to generate electricity and use a flare for backup, or may divert a small portion of the collected methane for onsite use. No matter what the GCCS destruction device setup is, it is important to have some type of monitoring device on each individual destruction device. Current Protocol allows for flow and methane quantity tracking to encompass all site destruction devices under specific circumstances, but the project developer must have documentation in instances of downtime for one of the destruction devices and assurance that the flow previously sent to the down destruction device is captured and destroyed. The project developer should evaluate their current plan for operating the destruction devices and whether it makes sense to track the flow and methane content separately (and subsequently calibrate and maintain the monitoring equipment) for each onsite destruction device to ensure that they are maximizing the verifiable credits that may be obtainable for the project.

Pre-Project Qualifying Destruction Device

As discussed in the previous section, the Reserve goals include the development for “business as usual” or baseline emissions. This comes into play for facilities that implemented some type of methane destruction prior to

implementing a GCCS. This may have been the use of passive flare vents for LFG management or odor control, or diverting the gas for some type of onsite use such as leachate evaporation. In this instance, the Reserve typically requires a quantification of the emission reductions associated with this activity as a baseline emission, and deducting the emission reductions from the amount credited to the Protocol eligible project. This requirement ensures that the Protocol eligible project is providing emission reductions that are additional to what the facility's baseline emission reductions were. Typically, facilities may not have the proper documentation of this pre-project operation, and therefore the Reserve has typically required that the maximum operation values for the destruction equipment be used to determine these baseline emission reductions in an effort to be conservative in the emission reduction credits allotted to the Protocol eligible project. If the facility has proper documentation for these pre-project devices, it is prudent to use these values to calculate the baseline emissions to provide for a more accurate quantification.

Credit Purchaser Standards

Beyond complying with carbon offset program protocols and verification standards, current voluntary carbon offset credit market conditions indicate that it is a "buyer's market". Although most voluntary carbon offset verification programs offer highly credible verification standards, purchasers of carbon offset credits for non-compliance purposes have the luxury of evaluating the project beyond the measures laid out for project applicability in a carbon

offset program. In other words, although the voluntary GCCS project may be accepted and verified in a carbon offset program, the purchaser may wish to see efforts undertaken by the project developer outside the voluntary GCCS. For example, ensuring an effective recycling program is in place or the pursuit of a landfill gas-to-energy project is underway. Non-compliance purchasers of carbon offset credits are in a position where they may wish to purchase credits from a project showing environmental stewardship above and beyond carbon management.

Evaluate Your Current Operation Practices

Municipalities interested in implementing a voluntary GCCS that are also interested in pursuing carbon offset credits in conjunction with the GCCS operation should thoroughly evaluate their current operation practices, along with staff capability to properly implement the Protocol requirements. A pro-active approach will ensure that the municipality is able to obtain the maximum amount of offset credits for the project. | **WA**

Cami Van Abel, P.E. is an environmental engineer with the solid waste section for SAIC in St. Paul, MN. She has more than 10 years of experience as an environmental consultant. Her experience in the solid waste industry includes providing design and regulatory compliance assistance for landfills and landfill support systems. Cami may be reached at (651) 994-8415 or by via e-mail at Cami.A.Van.Abel@saic.com.

Reprinted with permission. All rights reserved. From WASTECON® 2011 Proceedings. Published by the Solid Waste Association of North America, 2011.



ROLLING ROOF BOX

The Original
No Center Cross Member



Self Sealing Lids

New HD
Lid Roller Design



- Sludge
- Drill Turnings
- Contaminated Soil
- Remediation



Bucks Fabricating

800.233.0867
bucksfab.com



CLICK HERE FOR
MORE INFORMATION!



The End of an Era: The T12 is Sent Packing by the DOE

Sarah K. Steele

Gone is the era of the T12. Now, STOP DONATING TO YOUR LOCAL UTILITY, START SAVING ENERGY and use those rebates.

THE T12 FLUORESCENT LAMP ORIGINATING IN 1938, once carrying the title of the most common lamp in the world, will be hard to find on store shelves as its pending fate has been sealed by the Department of Energy (DOE). T12s are found in offices, body shops, restaurants, garages and waste management facilities. Named "T", for Tubular and the "12" for the number of eighths of an inch, the T12 could once be found in just about any facility including residential garages.

On July 14, 2012 the new general service fluorescent lamp efficacy standards will take effect in the U.S. These new standards, issued by the DOE include the discontinuation of manufacturing or importing of the majority of T12s. The DOE has thrown down the

gauntlet in eliminating these lamps in order to decrease the use of these highly inefficient lamps, setting what will arguably be a worldwide standard over time. In addition, the mercury content of a typical T12 manufactured pre-1992 is four times more concentrated than that of typical T8 found in most facilities today. A newer 800 Series T8 (recommended) has less mercury than its predecessor the 700 series T8. Technology may be perceived to be moving extremely fast, but the reality is that T8s actually entered the commercial world more than 25 years ago.

There are some exceptions to the discontinuation, but they are not the common 34 watt 4' and 40 watt 4' lamps commonly found or 8' lamps that range from

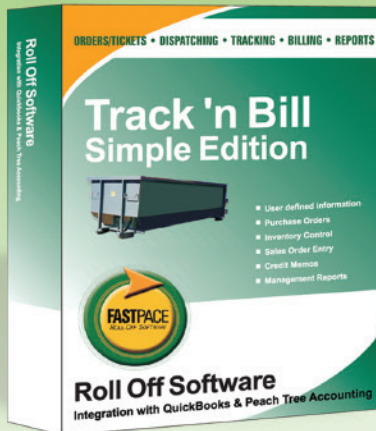
After a fixture has been retrofitted to a standard (2) 28 watt T8 lamps = 56 watts/fixture.



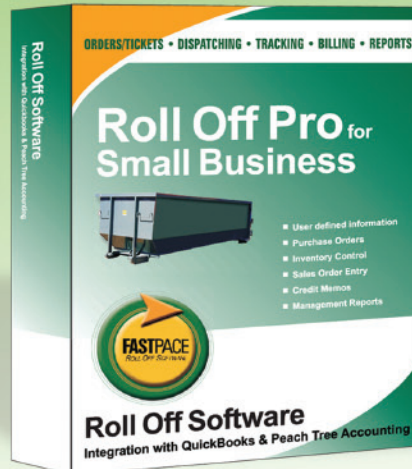
Photos courtesy of Sarah K. Steele.

Organize your Roll Off business

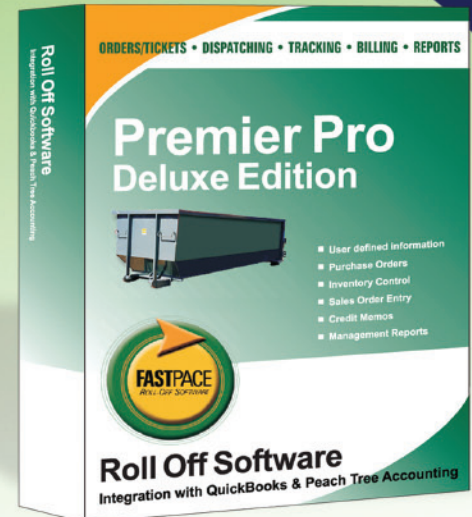
Integrates With
Google maps



The basic, no nonsense, 'get-er-done' program ... Simple entry level software.



Full featured! Organize, manage your customer information easily, while you control dispatching, tracking, billing and reports.



Enhanced capabilities added to the full features to accommodate larger operations and companies that want to take full advantage of all we have to offer. It does it all!

- ✓ **Streamline your office**
- ✓ **Keep track of all your containers**
- ✓ **Bill for everything you should**

Includes personal online training and support

Let us show you the possibilities!



Contact us for a FREE demo

FastPace Roll Off Software

www.FastPaceSoftware.com

sales@FastPaceSoftware.com

USA

CANADA

888.935.1911 • 952.955.3862

**The Only Software
Designed Specifically
for the
Roll Off Business**



CLICK HERE FOR MORE INFORMATION!

The End of an Era: The T12 is Sent Packing by the DOE

60 to 95 watts. In 2010, the magnetic ballast, most often paired with a T12 was eliminated as well. Its replacement is an electronic ballast that is not compatible with a T12.

Making the Switch

The time is now to make the switch to the T12's much more efficient successor—the T8. Do you have T12s lurking around your facility? There is still a short window of opportunity to seek out rebates from your local utility company to help pay for the retrofits. Typically, a rebate will pay for 20 to 50 percent of your retrofit project. Some retrofit companies will finance the balance of the project or your utility may offer financing as well. Choosing whether or not to have the retrofits done in-house should be made based on a few factors. Do you have a high volume of fixtures to retrofit? Are your fixtures in okay shape or should they be replaced completely?

Why make the switch if your lights are still in working order? Aside from the money available right now from many local utility companies to help pay for the retrofits, the energy savings realized once the retrofits are completed is astounding. A typical T8 is 40 percent more efficient than a T12. Light quality is vastly improved and often fewer lamps are needed when the retrofits are complete. This is what is known as “de-lamping.” A typical four lamp office fixture with 34 watt lamps can be reduced to two 28 watt T8s with improved light output and more than 50 percent savings. To top it off, the new T8 lamps also last almost 50 percent longer than the old T12s.

The T8 is actually in its seventh generation; and is more commonly known by either the “700 series” or “800 series”. The 700 series of T8s has also been eliminated by the DOE because its successor the 800 series has pushed efficiency just that much farther with the 25 and 28 watt lamps, as well as the reduction of phosphors and mercury content. If you happen to have 32w 700



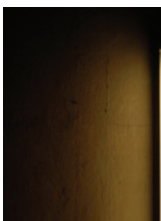
Left: Common to the industry in a multitude of different fixtures, the 8' T12 kept industrial sites lit for generations. Fixtures are now wither replaced by a new fixture, retrofitted to 4' T8 lamps or in rare cases, retrofitted to the less common 8' T8.

Right: Typical office fixtures will have either 34w or (as pictured) 40w T12s. By “de-lamping” from 4 lamps to 2, the reduction can be more than 100 watts with improved lighting.



When using a retrofit company, you are paying that company to retrofit your fixtures from existing to the efficient option chosen, coordinate recycling of the old lamps and fixtures and to deal with the rebate. Generally, retrofitters can do the job for less than in-house maintenance crews because they have the right tools, are very experienced with the process, and are very fast with implementation. Retrofit projects can have very quick returns with easy-to-calculate savings.

series T8 lamps in your facility in a high bay fixture or in office spaces, you may have an opportunity to re-lamp with 28 watt or possibly 25 watt 800 series T8s and qualify for a rebate. Typically, a T8 lamp will last three to five years, depending on its usage. It is a good idea to plan to have your facility re-lamped all at once before you have many lamps going out. The lamps will darken at both ends, dim slightly and then go out. Unlike the T12 that will dim over a long period, become completely darkened with barely a trace amount of



The Science of a Fluorescent Lamp

“Fluorescence” is created by the process of electric current passing through mercury vapor, resulting in the emission of UV radiation that is largely converted into visible white light by phosphors (the white coating you can see inside the lamp). Rare earth elements are used in phosphors (currently supplied primarily by mines in China) for energy-efficient and high-color-rendering linear fluorescent lamps.



Innovative Equipment And Waste Stream Solutions



BAKERS WASTE EQUIPMENT



**MANUFACTURING INNOVATIVE
WASTE HANDLING EQUIPMENT
SINCE 1981**

WWW.BWE-NC.COM



BAKERS WASTE EQUIPMENT



**THE RIGHT EQUIPMENT
AT THE RIGHT PRICE**

WWW.BWE-NC.COM



BAKERS WASTE EQUIPMENT



**CUSTOMER SATISFACTION
GUARANTEED!**

WWW.BWE-NC.COM

www.BWE-NC.com
1-800-221-4153



**CLICK HERE FOR
MORE INFORMATION!**



How About LEDs? Shouldn't We Consider LEDs Now?

Just as a machine has a purpose that it is built for, each type of lamp has a purpose as well. A recent wave of manufacturers have hit the ground running slinging all kinds of LEDs. Unfortunately, there are so many available now that the typical consumer would assume that since they are out there, they must be better. LEDs are fabulous for replacing a PAR lamp (typical halogen spot or flood lamp) at limited heights. LEDs are also a great option for lower wattage parking lot, parking garage or street lighting retrofits. The important factors to consider are generally safety related. If an area does not require bright white flooding and fixtures are not over 24', then you may consider LEDs for your facility. However, check to see if the LEDs you are considering are approved by your utility. LEDs in the shape of a T8 are just not ready for prime time since there are more factors to consider. The wattage of a typical T8 fluorescent lamp is 25 to 32w versus an LED shaped like a T8 that is about 20 watts. The cost of that one lamp is four to five times the cost of the super T8 and does not last much longer and will not produce the "daylight" we have come to appreciate from a T8.

The important factors to consider are generally safety related. If an area does not require bright white flooding and fixtures are not more than 24', then you may consider LEDs for your facility. First off, check to see if the LEDs you are considering are approved by your utility or administration's Public Utility Commission. This will greatly help to guide your decision process.

The End of an Era: The T12 is Sent Packing by the DOE

light seeping out. That innocent amount of light that is now likely buzzing overhead is actually using as much energy as a brand new lamp. If you have those lamps, at the very least, take them out!

Retrofits and Rebates

Rebates are often overlooked as a viable resource of funding projects. Rebate programs, both within your utility and offered by third-party programs, have ramped up in recent years. It is important that you move fast on these retrofits. Many utilities are eliminating their rebates as the DOE eliminates the T12s and 700 series T8s this July. Some utilities, such as Pacific Gas & Electric (PG&E) in California, are giving businesses until the end of 2012 to complete the retrofits. Others are eliminating the rebate as soon as June of this year. In addition, low-interest funding options are more and more common through both utilities and retrofit companies, often creating a positive cash flow scenario from the get-go.

Finding participating rebate programs was not the easiest task in the past, but now there is a great place to start. The DOE has compiled a list of all of the utilities in the country and some cities that offer separate rebate programs to their customers. Many programs are offered via third parties as well. (For more information on how a utility funded rebate program or third party program works, visit www.TheSteeleNetwork.com). To find rebates programs in your area, visit www.energy.gov/savings (U.S.) or oee.nrcan.gc.ca/home (Canada). Both Canada's www.nrcan.gc.ca and the U.S.' www.energy.gov will give you hours of reading material including information on opportunities you may be considering like solar, electric vehicles, biofuels in addition to the "low hanging fruit" of lighting efficiency.

By contacting your utility from the beginning, you will give yourself a running start on all of the resources they have to offer and will be less likely to miss out on programs available to your facility. Recent years have shown utilities to be partnering more and more with local contractors to get the word out about their programs. In the PG&E territory that services Northern and Central California, you will find their Trade Professional program pairs their customers with contractors dedicated to energy efficient measures. Preferred 'Trade Professionals' are given permission by PG&E to use the trademarked powder blue logo on their marketing materials. All of these contractors are familiar with the rebate programs and have demonstrated that they are using the most efficient products and have proven track records of completing projects with the utility. This is a coveted designation. Other utilities are rumored to be modeling similar

programs from PG&E's due to its proven success in saving heavy volumes of power territory wide since instituting the partnership program.

Why Would Our Utility Company Want to Sell Less Energy?

Aside from the common misnomer that utilities actually make money off of the energy they sell, the utilities are aggressively trying to convince its customers to move on energy efficient measures so they will not have to increase capacity by building more power plants. In fact, some States have been able to keep energy consumption at bay and barely increase usage in decades simply by promoting energy efficiency. These measures being taken by customers more and more each year can be credited to a group of very forward thinking people who collaborated together in the early 1970s. As computers, multiple televisions and little things like skyscrapers became common place, it became evident that the existing power infrastructure would quickly be inadequate unless its capacity was significantly increased over a fairly short period, or a game plan in making energy efficiency a reality was put in place. Leading the charge was Art Rosenfeld. He brought to light many opportunities that utilities were not looking at as opportunities to slow the increase of energy usage. Initially the focus and pressure was placed on manufacturers of the most common guzzlers, such as appliance makers. This pushed those manufacturers to create more efficient models which are now commonly labeled with the Energy Star labels we are familiar with. However, unlike an appliance that is typically replaced as a whole, lighting and other energy guzzlers like HVAC systems are more often maintained over decades which does not allow for manufacturers to as easily swap out the newer models for the older inefficient models. This is the reason the DOE has taken action over recent years to eliminate still commonly used and purchased items such as the good ole T12. Gone is the era of the T12, it had a nice long run—74 years. Not too bad. Now, stop donating to your local utility, start saving energy and use those rebates. | **WA**

Sarah K. Steele is a Senior Lighting and Energy Consultant residing in Northern California. She can be reached at Sarah@SarahKSteeleConsulting.com or find her on LinkedIn.com/in/skscon. For answers to commonly asked questions related to energy efficient projects, your local rebate programs and locating the right contractor, visit www.TheSteeleNetwork.com.

Environmentally Safe Bio-Hydraulic Fluid for Compactors on Refuse Trucks

Ira N. Pierce

Given the higher lubricity, better performance issues and today's extremely high cost of petroleum, THE PRICE IS RIGHT FOR AMERICA TO CHANGE TO AN ENVIRONMENTALLY FRIENDLY, TOXICOLOGICALLY SAFE BIO-HYDRAULIC FLUID.



IN LATE 1995 WHILE VISITING A PLANT IN SWEDEN

that was manufacturing bio-lubricants, I was surprised to have pointed out to me that refuse trucks operating there use bio-degradable hydraulic fluid in their compactors. I recognized at that time that environmentally safe lubes were much more costly than conventional oil. That is why I began to recommend them only to a very limited segment of the U.S. market. It included the public sector and a few companies that were early adopters for strategic reasons that included their concerns for the environment, energy and geopolitical issues related to insecure petroleum. Today, we know so much more about bio-lubes, and many companies are beginning to switch over to them—basing their decisions on both their cost and performance.

Early Adopters

Bio-lubes, including hydraulic oil, were considered initially by early adopters for the bragging right that "... they reduce our carbon footprint!" That definitely was not a good enough reason for most users to change, where cost is what rules. This was confirmed by a major attitudinal study performed for the U.S. Department of Energy, completed in 2011. The study showed that many public agencies and large to medium size private companies are already early adopters of bio-lubricants, including hydraulic fluids. Interestingly, some segments such as pile driving companies are using many of them while other companies never heard of them. Using the "Triad" approach to our own surveys—three key people from each entity, a policy person, a technical person and a salesperson, were chosen for a structured interview—in almost all cases, we found that both the public agencies and private companies said that if the price was right (which meant either price competitive or even a bit more expensive) and the product behaved just as well, that they would try them. The reason: many companies have recently developed a policy that includes the objective to "lessen their carbon footprint." In early 2002, Shell Oil, Europe did a field trial that found that bio-hydraulic fluid performance exceeded the drain requirements of mechanical equipment manufacturers. Their engineers quit testing after 4,000 hours (six months), which exceeds the recommended change time even for petroleum hydraulic fluids. The test engineers saw no use in prolonging the test, when the OEMs (Original Equipment Manufacturers) of, for example, the

pumps, would invalidate their warranties had the drain cycle been exceeded to save money, even though testing proved that it could be done. This is a big deal, as common knowledge would say that bio-lubes have a shorter life than do petroleum lubes, given the better oxidation capabilities of the latter product. Beside cost, that was the greatest concern of the technical people surveyed. The above study shows that this is not so big a concern, given the fact that bio-lubes cycle through the machinery so much cooler.

Around that time, companies in Western Europe including Sweden, Germany, Austria, Norway and Switzerland began using bio-lubricants in earnest because, unlike in the U.S., there was not much of a cost differential there between their highly taxed petroleum oil and bio-lubes. Also, people in Western Europe live closer in more dense communities than we do in our 'wide open spaces' here in the Americas. In addition, European governments tend to encourage environmental products through labeling and taxing more quickly than we do here in the U.S. (although we have caught on via the U.S. Department of Agriculture and the EPA's Bio-Preferred Program [www.biopreferred.gov]).

Bio-Oil Benefits Cooler Temperatures

When using bio-oil hydraulic fluid lines and hydraulic fluid, hoses break less frequently. Because the heat snags lines together and the machinery operated in runs hot, the seals are attacked, which causes the lines to break. With bio-oil, these lines and pumps break less frequently and the operating temperatures of the machinery run cooler because of its higher lubricity, which means that it is more slippery. In addition, when cycling through the equipment it creates less friction. Bio-oil adheres better, naturally, to steel than does petroleum oil. This means that the oil lubricates the machinery better, further reducing operating temperatures.

Petroleum-Free

Most bio-hydraulic oils are manufactured petroleum free, and are "biodegradable" by definition of the U.S. Department of Agriculture. They are safe for the environment and all living things. What that means is that the bio-oil, when spilled either accidentally or through their normal use, will be rendered inert by the natural action of micro-organisms in the water and the

Environmentally Safe Bio-Hydraulic Fluid for Compactors on Refuse Trucks

soil. These living “bugs” use the fatty acid lubricant as food and they do so quickly, so that in 21 days about 97 percent of the oil is gone. This compares to persistent petroleum oil that can take years to biodegrade, remaining in the soil as a pollutant. Spilled oil tends to mix with runoff from precipitation to lower lying areas that are environmentally sensitive.

Bio-hydraulic oil has extraordinary adhering qualities as compared to petroleum lubes. As good as it is for mechanical equipment, so it is for decomposing spilled bio-oil because it adheres better to soil particles as it penetrates the ground. As it remains on or nearer to the surface, there is more oxygen and therefore more micro-organisms to render or decompose the bio-oil back into its safer natural elements.

Toxicologically Safe

Another argument used initially by early adopters of bio-hydraulic oil is that it is toxicologically safe, as compared to petroleum oil that is a carcinogen (by OSHA's definition). From an occupational health standpoint, 25 percent of all workers who come into contact daily with any petroleum products suffer from general skin diseases, including discomforting eczema and oil acne. Another good reason to switch is that using benign, bio-based oil will also eliminate unpleasant and irritating petroleum oil odors that ruin clothing. Furthermore, medical records show that petroleum misting from machinery causes irritation of the respiratory tract from prolonged exposure.

Health care professionals know that workers who come in daily contact with petroleum-based lubes continue to be at risk from the many dangerous consequences due to misting. Unlike, say, oil refinery workers, field personnel who use these lubes on a daily basis do not receive onsite health care, nor do they have convenient places to wash and to change clothing.

Carbon Footprint

I mentioned “carbon footprint,” earlier. That is because bio-oil is made from sustainable products grown by our nation's farmers, which means that users reduce our nation's dependence on insecure foreign oil. A great bio-hydraulic oil is made from canola, with high tech additives to make up for its poorer oxidation and pour point capabilities. Canola has the most positive lifecycle energy cost to benefit ratio of any vegetable oil, including that of soy.

There also is the matter of “food vs. fuels and lubes” that must be mentioned. Unlike biodiesel, which is made from corn and affects the price, Canola, while also a food product, is basically a Canadian product and traditionally has not been grown much in the U.S. As U.S. farmers are always looking for new crops rowing Canola is a profitable replacement crop.

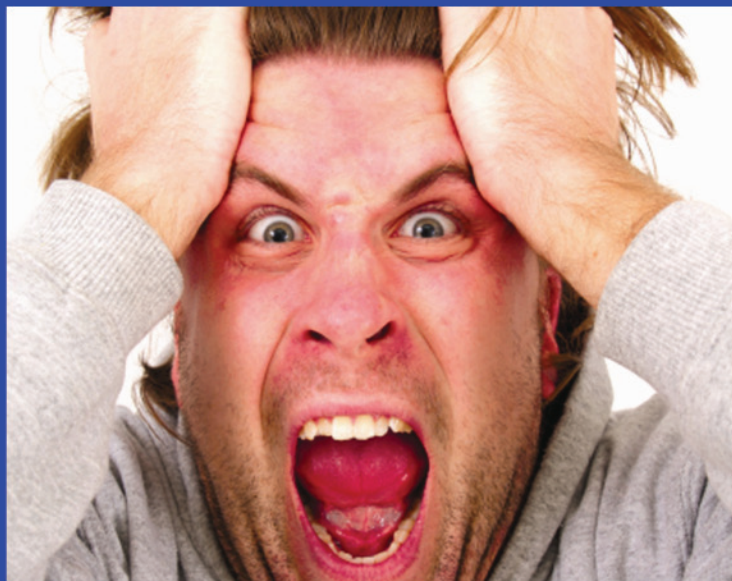
Considering the Switch

Finally, I started out by mentioning price as a prime determinant of whether or not to switch to bio-oil. Clearly, the first big issue is cost. However, given the higher lubricity and performance issues mentioned above, plus today's extremely high cost of petroleum, the price is right for America to change to an environmentally friendly, toxicologically safe bio-hydraulic fluid. | **WA**

Ira N. Pierce is a licensed professional engineer who founded the Green Oil Company, (Blue Bell, PA) in 1991. Last year, his company completed a \$1,365,000 study of automotive bio-lubricants for the U.S. Department of Energy that was supplemented by \$50,000 from the State of Montana. He can be reached via e-mail at ira.pierce@gmail.com or visit www.goco-usa.com.

Frustrated?

G'BRIAN
ISO 9001 COMPANY
TARPING SYSTEMS
www.obriantarping.com
2330 Womble-Brooks Rd.
Wilson, NC 27893
1-800-334-TARP



Quality Parts
Quick Turnaround
Knowledgeable Staff
Made in the USA



**CLICK HERE FOR
MORE INFORMATION!**

Is your **RACK'd** tarping system causing **EXPENSIVE** truck downtime? Can't get the parts you want? Lack of communication or no quality tech support driving you crazy?

Then it's our '**PINION** you're dealing with the wrong tarping company!



Railroads: Requirements of Hauling Waste

Darell Luther

Railroad requirements seem tough but generally are LIMITED TO A SHIPPER'S COMPLIANCE TO A SET OF FEDERAL, STATE, LOCAL AND RAILROAD RULES AND REGULATIONS. Becoming educated on rules, regulations and processes ahead of time will ensure that your experience moving waste in bulk is a successful one.

WASTE IN MOST ANY FORM HAS MOVED TRADITION-ally in a truck from collection directly to the landfill. However, in the early 1990s rail transfer of municipal solid waste broke ground at Seattle's Alaska Street Transfer Station. This is the time and place where you'd find the introduction of running daily "trash" trains transporting intermodal containers on 50 to 60 railcars each day hauling that trash from the city to the Columbia Ridge Landfill site at significant cost gains for the city. That business continues today.

Moving Waste

If one looks at the Portland Metro 2006 – 2007 Solid Waste and Recycling Year in Review, you'll see that Metro's two transfer stations trucks delivered 18,480 truckloads of "waste" from Portland, OR to Gilliam County 150 miles west to the Columbia Ridge Landfill. Rail at this time isn't part of their transportation equation.

If you keep digging and head to the east coast you'll find the Solid Waste Management Plan for New York City passed in 2006 emphasizing the minimization of traffic congestion and truck emissions in the city. A focus going forward: hauling municipal solid waste by rail to

various disposal sites in the east and even to locations in the Midwest. Today, much of that waste now moves via rail to a host of regional landfills.

So what makes moving waste from a next door landfill to one a few hundred miles away economical? In many cases, current landfills are running out (or have run out) of permitted airspace and the response of local citizens is often negative to increased landfill use in their neighborhoods. Waste-to-energy plants for the same waste streams are generally met with similar resistance due to the unpopular nature of having a waste facility in a more residential area. Further compounding local landfill efforts is real estate costs and social and environmental impacts on local communities.

In the early 1990s there were a few waste truck-to-rail transfer locations and subsequent waste trains. This changed dramatically in the mid-2000s where a significant number of municipalities jumped on the bandwagon as landfills closed and social pressure caused municipalities to explore other options. In response to the surge, railroads developed rules and regulations governing the transport of waste and other non-hazardous and hazardous commodities.

Railroad Requirements

"In the beginning", railroads had only a slightly better idea of the transport requirements of waste than the shipper. The waste commodities were new to the railroad transport industry and the nature of the product put the fear of liability into many railroads. Railroads were quick to adapt Federal and State mandated standards for waste handling and transport. One can find the Federal and State transfer of liability to the shipper and receiver in each railroad tariff.

Railroads manage the shipment of commodities by a seven-digit Standard Transportation Commodity Code (STCC). Waste is broken into three general classifications. STCC numbers 28-197-XX which covers radio-active or nuclear chemicals, 40-xxx-xxx which covers most non-hazardous and non-radioactive commodities such as ash, waste or scrap, soil, debris, low-level radioactive contaminated soil, municipal solid waste, construction and demolition debris, municipal



Cleaning contaminated tank cars.
Images courtesy of Tealinc.

Superior Wheels & Molded Products

ROLL•TECH

Get to Know Roll-Tech
866.431.4515

rolltech@rolltech.net • www.rolltech.net
Contact us soon for a quote, samples, etc.

NEW! SnapLock™ Wheels



- **100% injected wheel with or without quiet-rolling rubber cap**

- **SnapLock and "Through-Hole" versions available**

- **Economical Wheel**

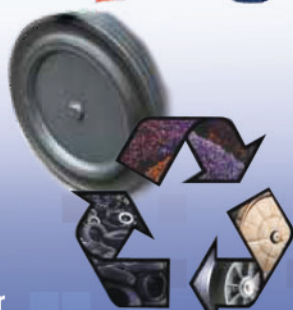
- **Wheels specifically designed for residential waste collection containers.**

- **Superb cold-and-warm weather performance and durability**

- **Designed for shock absorption backed with workmanship warranty**

- **ANSI Z245.30 and Z245.60 compliant**

- **Ecologically -friendly, rubber tread wheels offer "Quiet Quality™" for noise reduction during rolling.**



Eco-Friendly
Made from post-consumer recycled materials and are also completely recyclable.

SPECIFICATIONS:

- 12"x2" - 10"x2"
- Integrated Spacer (2" - 4 1/2" offset)
- Bore: 5/8", 3/4", 7/8"
- Load Rating: 330 lbs.



**CLICK HERE FOR
MORE INFORMATION!**

Railroads: Requirements of Hauling Waste



Rotary dumping waste gondolas.

garbage waste, automobile shredded residue, and sewage sludge and 48-xxx-xxx, which covers hazardous waste materials.

As with any railroad tariff, governing industry rules and regulations for shipping waste on a railroad clearly convey that the following are all the sole responsibility of the company shipping or receiving the waste:

- The prior gathering and transportation of the commodity to the origin rail loading point
- The trans-loading of the commodity to and from railcars at the origin and destination
- The tendering of Bills of Lading and other necessary information
- The transportation of the commodity from the railroad destination to the designated landfill or disposal facility
- The lawful disposal of the commodity at the designated landfill or disposal facility
- The sole selection of the designated facility
- The ownership of the commodity

Railroad tariffs, industry rules and regulations also convey that railroads are only responsible for the rail transportation of the commodity to the destination. Railroads deal with liability every day due to the nature of commodities they transport and are especially concerned with the shipment of waste type commodities due to contingent liabilities. After getting the commodity to the origin loading site, a customer is responsible for loading the commodities in compliance with the loading rules of the Association of American Railroads (AAR) and applicable federal and State loading and handling rules. The AAR rules are vast and cover loading of containerized, baled and bulk commodities onto and in various types of railcars. These rules can be found on the AAR operations Web site at www.railinc.org.



Preparing Railcars

Railroads place the sole responsibility of tendering railcars and containers to the railroad on the shipper. All equipment must be in mechanical compliance. There can be no mechanical defects or safety hazards such as bulging sides, improper securing of lids on containers, and improper securing of tarps and covers to railcar safety appliances. The repair and maintenance of said railcars and containers are the shipper's responsibility for privately owned railcars and containers and the railroad's responsibility for railroad owned equipment. As an aside, railroads generally require shippers to provide private railcar equipment when shipping waste commodities as defined previously. If, on the odd chance that you, as a shipper, get a railroad

provided railcar that isn't in mechanical compliance, reject it back to the railroad. Do not load a non-compliant railcar because you still retain the responsibility for commodity leakage or spillage even if it isn't your railcar.

Many shippers don't have access to origin scales. Despite this fact, the responsibility of matching the lading weight to the gross weight on rail of the railcar is the shipper's responsibility. If you overload a railcar, the railcar will be set out at the first place of convenience for the railroad and you will have the option of trans-loading (depending on the commodity) a sufficient amount of the commodity to another railcar to bring the railcar gross weight on rail back into compliance with the railroad requirements or the railroad will send

Expello®
YOUR AIR SYSTEM, OPTIMIZED

**ELIMINATE
COSTLY FREEZE-UPS**

GET CLEANER DRIER AIR

SIMPLE INSTALLATION

NO MAINTENANCE

"FORGET ABOUT IT" OPERATION



EXPELLOAIRPRODUCTS.COM



A Unit Of D&D Instruments
Minneapolis • 888.217.3744



**CLICK HERE FOR
MORE INFORMATION!**

Railroads: Requirements of Hauling Waste

the railcar back to the origin to be trimmed to the correct weight. Both are expensive options as the railroad will charge you for your mistake.

The last sequence of operating events is to unload and decontaminate the railcar. You guessed it—this responsibility also lies with the shipper or commodity owner. If a railcar is contaminated by a commodity, the shipper will be responsible for cleaning or decontaminating the railcar before tendering it back to the railroad. Federal, State and local laws including the Code of Federal Regulations, Federal Department of Transportation and EPA regulations govern certain requirements for unloading and decontamination of railcars. The list is somewhat vast due to the nature of the commodities potentially transported.

Insurance

Due to the nature of the commodities transported most railroads require a minimum Commercial General Liability policy of no less than \$10 million per occurrence for injury, death, damage, etc. Waste companies generally have large commercial liability insurance coverage amounts in existence due to the nature of their business. In our experience most insurance companies will, with a little explanation, extend these policies to meet railroad requirements.

In addition to Commercial General Liability requirements, waste haulers may also need pollution insurance to negate spillage risk. An extension of these policies to the railroad or railcar leasing companies should be a matter of course

when properly explained to your insurance providers. Keep in mind railroads aren't insurance providers. You'll need to get your own insurance coverage to comply with railroad requirements.

Becoming Educated

Railroad requirements seem tough but are generally limited to a shipper's compliance to a set of Federal, State, local and railroad rules and regulations. Although these requirements are somewhat arduous in nature, waste collection and disposal companies are generally used to dealing with such challenges and risk management requirements. Becoming educated on rules, regulations and processes ahead of time will ensure that your experience moving waste in bulk is a successful one. | **WA**

Darell Luther is president of Forsyth, MT-based Tealinc Ltd., a rail transportation solutions and railcar leasing company. Darell's career includes positions as president of DTE Rail and DTE Transportation Services Inc., Fieldston Transportation Services LLC, managing director of coal and unit trains for Southern Pacific Railroad and directors positions in marketing, fleet management and integrated network management at Burlington Northern Railroad. Darell has more than 24 years of rail, truck, barge and vessel transportation experience concentrated in bulk commodity and containerized shipments. He can be reached at (406) 347-5237, via e-mail at darell@tealinc.com or visit www.tealinc.com.

DESERT MICRO™
WWW.DESERTMICRO.NET

ROUTING GPS DISPATCH PROCESSING ACCOUNTING WEIGHING

Call Today: 800.547.7082

Stay competitive in a competitive marketplace!
The hardest working software in the business
making a difference to your bottom line.

SOFTWARE THAT HAULS
Integrated software solutions for waste, recycling and logistic industries

SHOP!
CLICK HERE FOR MORE INFORMATION!



Waste and Recycling Report Card: Mid-term Review

John Wayhart

Successful companies have 20/20 vision in regards to past and potential future incidents. GOAL SETTING AND MEASURING IS VITAL to continue on a productive path towards zero accidents and zero tolerance for unsafe habits.



YOUR COMPANY'S RESULTS SAY A LOT ABOUT THE

people who lead, motivate, hire, supervise and reward within. Last issue, we talked about new employee orientation, but now it's already halfway through the year ... how is your new employee and waste or recycling business performing? Are you seeing results? Use Chart 1, page 40 to track your mid-term report card for 2012. To achieve a Grade A and see the most measurable impact in productivity, time, Experience Modification Rating (EMR), insurance costs and bottom line, let's look at each part of the process for a Zero Accident Culture (ZAC).

Corporate Safety Mission Statement

Ownership and Senior Management team fully support and have signed off on a corporate safety mission statement. This is used as a backdrop in production, operational and safety meetings, as well as in the hiring process and new employee orientation. In the event of an injury or near miss, the employee is reminded of the company's commitment to workplace excellence.

ROI = ROI (Return on Investment = Reach of Influence)

Your company's Reach of Influence regarding workplace excellence and safety is 100 percent of the working environment. Owners, Senior Executives, Front Line Supervisors and Human Resource Directors are all strong advocates and supporters of workplace safety initiatives. Using outside resources/vendors has also been extremely strategic in advancing workplace safety.

S.L.E.E.P.: Severity Loss Evaluation and Elimination Plan

This risk evaluation plan has been completed and the results have been communicated to every employee within the organization. Steps have been made to eliminate severity exposures, and safety awareness training has been completed or scheduled. This will be

an ongoing process for safety committee members to ensure all known severity exposures have been properly eliminated and new ones have been recognized and communicated to fellow employees.

Hiring Process

The recruiting process is geared toward selecting the very best and qualified person for the job. The selection process is strategically aligned with a series of behavioral safety practices, expectations and requirements so the candidate already begins to formulate a desired safety responsibility before their first day on the job. Each person who interviews the candidate is involved in helping advance the responsibility of workplace excellence in regards to safety.

New Employee Orientation (NEO)

For every new employee's first day on the job, there is a specific time set aside to review the Corporate Safety Mission Statement, as well as meet with a Senior Executive, Immediate Supervisor and possible mentors who enthusiastically provide the new employee with workplace excellence and safety standards. At this time, a culture of zero accidents is also reinforced to the entire team working with a new employee.

Rethinking Safety Committees

Production and safety meetings are designed to make things happen that will have a financial and operational impact for the organization. Progress reports are maintained and reviewed at these meetings, along with delegated responsibilities to ensure safety initiatives will be completed.

Injury Review Process

When someone is injured on the job, it is treated with utmost care and respect. The injured employee, immediate supervisor and incident are evaluated until a root cause has been reached and agreed upon. The evaluation and findings will be communicated to all

MY WASTE HAULING/EQUIPMENT/SERVICES COMPANY

ZAC PLAYBOOK	A	B	C	D	F
CORPORATE SAFETY MISSION STATEMENT					
ROI = ROI					
S.L.E.E.P.					
HIRING PROCESS					
NEW EMPLOYEE ORIENTATION (NEO)					
RETHINKING SAFETY COMMITTEES					
INJURY REVIEW PROCESS					
EMPLOYEE BUY-IN					
QUANTIFICATION					
CELEBRATING SUCCESS					

A – ZAC Pro – making a difference and measurable impact in safety and bottom line
 B – ZAC Groupie – the implementation stage still inconsistent, but we are learning and making strides
 C – Mostly Talk and Just a Little Walk – know what measures to implement; still figuring when and how
 D – Need to Get the Fire Going – no definite safety or zero accident plan in place
 F – Hope Someone Buys My Company – ZAC is not even a thought

Chart 1: This mid-term review chart is to help waste and recycling organizations determine whether their safety and risk management programs are on track for a Zero Accident Culture that eliminates incidents and increases bottom line. See the table key to determine whether your company can be considered an A, B, C, D or F for the main ZAC components located in the left-hand column. Chart courtesy of John Wayhart.

employees for a complete understanding of the lesson at hand. This process is done immediately and viewed as a priority.

Employee Buy-In

When employees are left on their own, what do they do? How do they behave? This, in essence, is the definition of workplace culture or a personal brand. Evaluating this stage of the process is difficult, yet, when it is good or bad, you know. Are we pulling in outside resources, such as the local fire, police, and emergency medical technicians to tour our operations or train our people? Do we leverage our insurance broker or carrier to assist in safety? Are there employees who are trained in CPR or first aid that we can ask for assistance? How many people do we have who are making things happen and doing the right things on their own free will?

Quantification

There are financial or operational goals and objectives the company has established that are being tracked, evaluated and publically communicated. Financial incentives for managers and employees who represent and uphold safe practices is built into part of the compensation program. There are numerous quantitative analyses performed, including EMR, frequency and severity rates, lost time incidents, days away from work, modified duty and day of reporting.

Celebrate Success

The company has a formalized way to celebrate certain achievements set forth on a monthly, quarterly or annual basis. This is a time to reflect upon what was positive and where we are heading as it pertains to workplace excellence. Celebrating safety achievements brings life and enthusiasm to the program and keeps ZAC top of mind. Reward those individuals who have done great work and provide reflection/motivation for everyone to continue success.

Key Mid-term Reporting Takeaways

Successful companies have 20/20 vision in regards to past and potential future incidents. Goal setting and measuring is vital to continue on a productive path towards zero accidents and zero tolerance for unsafe habits. As the old saying goes, "What gets measured, gets done". Now, what's your half-time speech and grade for workplace safety in 2012? | **WA**

John Wayhart is a Senior Vice President at Assurance Agency (Schaumburg, IL). With more than 29 years in the insurance and risk management industry, his expertise lies in providing solutions for a wide range of businesses including the waste and recycling industry. In the 1989, John trademarked the Zero Accident Culture® and continues to teach, coach and mentor this process to help drive down the cost of risk to improve operational effectiveness and financial results. John can be reached at (847) 463-7161 or jwayhart@assuranceagency.com.

Tires Case Study



DuraSeal Technology Tires Helps Construction Waste Hauler Reduce Downtime Due to Flat Tires by 90 Percent

Since switching to DuraSeal, Cragco Inc. CAN NOW MEASURE TIRE LIFE BY MILES INSTEAD OF MONTHS.

RUNNING A SMALL BUSINESS, TOD CRAGGS WEARS

many hats. He's not only the owner of Ransomville, NY-based Cragco Inc., but he's also the fleet manager, the overtime tire repairman and the company's accountant. Cragco Inc. is a construction waste hauler and recycler that operates a fleet of seven trucks. Cragco trucks haul 15-, 22-, 30- and 60-cubic yard roll-off containers from commercial and residential construction sites to waste facilities and transfer stations near Lewiston and Buffalo, NY, and throughout western New York.

Little did Craggs know that a change in his tire program made possible through The Goodyear Tire & Rubber Co. (Akron, OH) would reap big rewards not only for his company's bottom line, but also for his family life. The change lifted his company's profit by 10 percent through the first full year he used the tires in 2010. It also gave Craggs more time to spend at home with his family instead of working at his company's shop repairing tires.

Tod Craggs, owner of Cragco Inc., shows several items that were pulled from tires that contain Goodyear's DuraSeal Technology. Craggs didn't have to deal with flats resulting from those punctures. DuraSeal, a gel-like, solvent-free compound built into the inner liner of the tire, instantly and consistently seals punctures up to ¼-inch in the tread area, without the need to repair the tire until it is retreaded. Photos courtesy of Goodyear CommercialTire.





Left: Before moving to DuraSealTechnology, Craggs figures that each week, he and his maintenance crew had 10 to 15 tires to repair before trucks could go out again.

Right: Cragco Inc. relies on the expertise and service of Hurtubise Tire Inc., a Goodyear commercial tire dealer. A change to using DuraSealTechnology tires, recommended by Mike Andalora, a tire sales representative from Hurtubise, resulted in Cragco Inc. getting a 10 percent boost in profits through the first three quarters of 2010.

Tired of the Same Results

"I used to do most of the tire repairs at the end of the day and remount them before going home, instead of having my maintenance guy spend a lot of overtime doing it," Craggs says. Since Cragco does most of its own tire repair

work, Craggs figures that each week, he and his maintenance crew had 10 to 15 tires to repair before trucks could go out again.

"Running trucks in construction and demolition landfills is like running through a field of landmines," Craggs says. "It wasn't unheard of for a number

ATTENTION!

IMPROVE PRODUCTIVITY & REDUCE WORKPLACE HAZARDS!

COMMERCIAL CONTAINER DUMPER/ATTACHMENTS

AUTOMATE YOUR REAR LOADER • ROUTE TIME SAVINGS OVER 1 HOUR
• IMPROVE DRIVER SAFETY • PATENTED DESIGN

Qwik-Tip, Inc.

847-640-7387

www.qwiktip.com

SEE OUR VIDEO DEMOS ONLINE!

The Greatest and Safest Container Picker Upper!

The QWIK-TIP II is the *Safest Commercial Container Dumper/Attachment on the market*. Automatic Locking and Dumping of the container improves driver safety and reduces major injuries and accidents from containers jumping out of the load sill. The QWIK-TIP II increases route speed — saves (on average) one hour of route time per day (ROI in 165 days).



MODULAR DESIGN
EASILY MOUNTS ON
ALL REAR LOADERS!



NEW QWIK-TIP ROLLER OPTION,
SAVES THE PAINT AND DECALS
ON YOUR CONTAINERS!



PATENTED
TRUNION
LOCKING
HOOK
SYSTEM

"Veolia Environmental Services' motto is "Service First, Safety Always" Many Veolia drivers utilize Qwik-Tip to help accomplish this goal by removing workplace hazards AND improving productivity." —Matthew Marquis General Mngr. Veolia Environmental Services Melrose Park, IL



SHOP!

CLICK HERE FOR MORE INFORMATION!

of our new tires to require some kind of work on them after just one month on the road. Every single week, I could count on every one of our trucks getting at least one flat, and often two that had to be repaired. I figure I was personally spending anywhere from five to 10 hours a week working after hours, sometimes more, repairing tires."

The five to 10 hours is on top of the two to three hours the company's mechanic spent during the day repairing and replacing tires, he added. Sometimes, Craggs and the company drivers had to get out of the trucks and help mount tires so that they could get trucks back out on the road. "We were all in the shop working on tires instead of being out there hauling construction debris to landfills and making money."

Sealing the Deal

That all came to an end in late 2009 when Craggs took the advice of Mike Andalora, a tire sales representative at Hurtubise Tire Inc., a Goodyear commercial tire dealer, and started equipping his Kenworth and Western Star trucks with Goodyear drive and steer tires that contain Goodyear's DuraSeal Technology. DuraSeal Technology is a gel-like, solvent-free compound built into the inner liner of the tire. It can instantly and consistently seal punctures up to ¼-inch in the repairable tread area, without the need to repair the tire until it is retreaded. (DuraSeal does not seal sidewall punctures.)

Craggs now runs the Goodyear G177 with DuraSeal Technology in size 11R22.5 on his trucks' drive positions and the Goodyear G287 MSA with DuraSeal Technology on the trucks' steer positions. The results have been amazing. "For the first full year after I started using DuraSeal, I reduced downtime due to flat tires by at least 90 percent or more," says Craggs. "I spent 54 percent less on tires in 2010 than I did the year before, even though the DuraSeal Technology tires cost more. On some of my trucks, I've also had the same set of DuraSeal tires for nearly two year and haven't had to replace them with new ones.

"Retreading is where the money is. It's how we're getting even more value out of our DuraSeal tires," he says. "Before DuraSeal, retreading was out of the question. Now I can retread close to 85 percent of the DuraSeal Technology casings I turn in. The DuraSeal Technology tires aren't bulletproof, but they're close to it. Sometimes our truck's tires sink in the mud and we get sidewall punctures. But under normal circumstances, those tires will take a lot of nails."

Measuring Tire Life By Miles

Each of Craggs's trucks travel an average of 60,000 to 70,000 miles per year. Craggs said that on one set of DuraSeal Technology tires installed in late 2009 on a truck that visits construction and demolition landfills 10 to 15 times a day, his company got more than 60,000 miles without changing any of them. Since switching to DuraSeal, Craggs can now measure tire life by miles instead of months and talk about things like tread life and miles to removal without laughing. "Before we got DuraSeal, 90 percent of the time, our operation would ruin tires long before they would wear out," he adds.

When Hurricane Irene struck New England in late August 2011, Craggs said his company was called in to help assist with the removal of storm debris and damage. Other waste haulers on storm duty quickly noticed that Craggs wasn't spending any time repairing flats or replacing tires even though they were dealing with many flats themselves. "They asked me what kind of tires are

you running, and I told them," he says. "I found out later that many of them are now running DuraSeal Technology tires on their trucks."

Craggs said he never bothered to keep track of miles to removal before he started using DuraSeal. Now, that's changed. After nearly a year of service, he sent in two sets of DuraSeal Technology tires to be retreaded. They had nearly 70,000 miles logged. Craggs has also reduced the number of mounted tires he sets aside to swap out with tires that develop flats from punctures. Prior to moving to DuraSeal Technology, Craggs routinely inventoried 20 mounted tires, which didn't come cheap or easy since he had to purchase a number of rims. "I've found I only have to keep two or three mounted DuraSeal Technology tires ready to swap out at any given moment, in case the tires suffer sidewall punctures or other issues that DuraSeal can't seal," Craggs says.

"DuraSeal has certainly made a big difference in our operation," he adds. "I have been so pleased with the performance of this tire technology that I run nothing but DuraSeal tires. And because I have a lot of friends in the waste hauling business around here, I've been talking up the DuraSeal tires and now all of my friends use them." | **WA**

For more information, contact Tim Miller, Marketing Communications Manager at The Goodyear Tire & Rubber Co., at (330) 796-3258 or via e-mail at timothy.miller@goodyear.com



Need to Know Your Worth? Go to the Experts.
Sterner Consulting
Solid Waste Business Brokers (M&A Services)

We Will Sell your Collection Business, Landfill, Transfer, or Solid Waste Facility. We have been in the U.S. solid waste industry Mergers & Acquisitions business for three decades... and we **NOW HAVE STRATEGIC AND FINANCIAL BUYERS WHO WILL PAY TOP DOLLAR** for premier industry companies.

Call or visit our web site for more information!

Tel: (412) 562-0891 • Fax: (412) 562-0892
www.sternerconsulting.com • info@sternerconsulting.com



**CLICK HERE FOR
MORE INFORMATION!**

Breakthroughs and Innovations



SAFETY VISION's (Houston, TX) SafeDrive MiniDVR™ mobile digital video recorder (MDVR) system with two integrated cameras installs directly to the windshield, securely and permanently. The system captures video of road and cabin, with both a forward-facing and an interior-facing camera. With its compact size and mounting versatility, this reasonably priced, feature-rich MDVR is adaptable to any vehicle in your fleet. Benefits include:

- Recording is triggered in the event of a crash, when the vehicle's operator is speeding or driving erratically, or when the driver manually triggers the event button
- Battery backup ensures events are recorded even with a loss of power
- The system's post-event snapshot feature allows recording to continue while video is downloading to the CompactFlash® card
- SafeDrive records global positioning system (GPS) time and date, vehicle speed, longitude and latitude, and x- and y-axis G-force data synchronized with the video and audio
- The MDVR can be installed permanently to a windshield with an included bracket, or for temporary use with custom SafeDrive MiniDVR™ suction cups

FOR MORE INFORMATION, CALL (800) 880-8855 OR VISIT WWW.SAFETYVISION.COM.

EATON's (Kalamazoo, MI) patented Hydraulic Launch Assist™ or HLA® hydraulic hybrid system has two main parts: regeneration and acceleration. During regeneration the vehicle's kinetic energy that is normally lost during braking is captured and used to drive the pump/motor as a pump. The pump action transfers hydraulic fluid from a low-pressure reservoir to a high-pressure accumulator. As the fluid pumps into the accumulator it compresses nitrogen gas and pressurizes the system. The regenerative braking captures about 70 percent of the kinetic energy produced during braking. For acceleration, the fluid in the high-pressure accumulator is released to drive the pump/motor as a motor. The motor then propels the vehicle by transmitting torque to the driveshaft.

The Eaton HLA system has two different operating modes: Economy and Performance. When operating in Economy Mode, the energy stored in the accumulator during braking is used alone to initially accelerate the vehicle. Once the accumulator has emptied, the engine will begin to perform the acceleration. This process results in increased fuel economy. In Performance Mode, acceleration is created by both the energy stored in the accumulator and the engine. Once the accumulator has emptied, the engine is completely responsible for acceleration. While fuel economy improvements are seen in Performance Mode, the greatest benefit is increased productivity.

FOR MORE INFORMATION, CALL (800) 826-4357 OR VISIT WWW.EATON.COM.

EATON

Powering Business Worldwide

HANDLE IT (Milwaukee, WI) is a simple, easy to use, portable device that simplifies the process of moving your mobile-trash-container (wheeled trash container) to the curb for pick-up. It's safer, easier and cleaner. Just attach the handle to the container and you're ready to roll. Handle It makes even the heaviest wheeled trash containers easy to move for all ages. It helps to:

- Enhance tilt-and-roll mobility
- Give extra leverage for those full containers
- Make negotiating long driveways, slopes and irregular pavement easier and safer
- Increase leverage, reduce stress



- Provide distance between you and that cumbersome container
- Fit all sizes of wheeled trash containers
- Prevent the spread of germs and unsightly contaminants

100 percent recyclable products are used:

- Plastic Arms—Weigh 4oz, 9" x 1-1/2". Made from HDPE
- Metal Handle—1" cold rolled steel 0.065 wall thickness
- Metal Hooks—1/4" cold rolled steel
- Plastic Knobs—Made from HDPE
- Metal Springs—Stainless steel

FOR MORE INFORMATION, CALL (951) 956-4515 OR VISIT WWW.HANDLEITCORP.COM.

Extremely easy to install on virtually any engine, CCECO's (Kent, WA) Oil Extender no-mess, no-spill, patented system can cut the need for oil changes up to five times. So, do the math. How much can you save? The cumulative effect is impressive. The Oil Extender comes in sizes to specifically meet the needs of different sized engines. From personal vehicles and big-rig trucks to marine applications and heavy equipment, this by-pass filter dramatically reduces the necessity to change oil. Regular in-line filters only take out particles 10 microns and larger. The Oil Extender's unique, patented system filters down to 1 micron, absorbing finer particles and harmful moisture. The result extends the life of your engine or transmission, reducing component wear and does not affect your equipment warranty.

FOR MORE INFORMATION, CALL (866) 462-2326 OR VISIT WWW.CCECO.NET.





Capitalizing on its recognizable name and nationwide presence, RENTADUMPSTER.COM™ (Lansdale, PA), an innovative online container rental service, offers waste haulers a cost-effective way to increase their roll-off business by leveraging the Internet, while giving businesses and homeowners a fast, reliable way to access rental containers. The term “rent a dumpster” is widely used on search engines to find dumpster rental services every day. Because it corresponds to RentADumpster.com’s name, the company enjoys visible brand name recognition. It also differentiates itself from other online rental services by offering extraordinary service, support and simplicity.

RentADumpster.com contracts with local haulers in counties across the country to provide temporary or permanent drop box service under the RentADumpster name. These haulers have the exclusive right to offer RentADumpster service in their region, giving them instant access to the growing Internet market for container rentals. RentADumpster.com’s Web site makes the rental process fast and efficient. Users enter their zip code, schedule the size and type of service they want, and a short time later, their container is delivered to their home or jobsite. By building an extensive network of regional haulers, RentADumpster is creating a reliable “one-stop” Internet destination for large-capacity container rental.

FOR MORE INFORMATION, VISIT WWW.RENTADUMPSTER.COM.



RELIABLE PUMPS STOPS INC. (RPS) (Simi Valley, CA) introduces its new, patented front-mount hydraulic pump stop. Measuring 6" long and 8" in diameter, it mounts at the normal SAE C flange in both two and four-bolt configuration and connects to the drive line running off the front of the engine. The output side then accepts your pump and is available in 1.25" spline and keyed shafts. A cab-mounted control box oversees the operation of the stop and the system has some very unique properties. The operator arrives on route with the pump at full rest. At idle, the driver arms the system with the on switch and continues with his normal duties. The device has the ability to disengage the pump in a couple of different ways, regardless of switch position. If the driver has forgotten to shut the system down, through a link to Vehicle Speed Sense, it is programmed to disengage above 20MPH and will not re-engage before speed drops under 5MPH. This feature alone will save fuel to and from routes and dump facilities and it will also increase pump life by totally preventing the pump from rotating.

We have all seen the horrors of broken hoses, hard lines, cylinders or other hydraulic components fail on route with the resultant 40, 50 or even 60 gallon oil spill. The cleanup in labor and materials can cost hundreds, and that's without your local HazMat team getting involved where hundreds can turn to thousands in a hurry. This is where the system really shines. It is supplied with a dual float switch mounted in the hydraulic tank. The upper float will provide a low oil level warning in cab. The second float is set just below the low, on route oil level. If there is a drop in oil level for any reason, the switch will disengage the pump and drastically reduce the amount of oil spilled. You will also have the ability to get the truck back to your facility, without pump damage, for repairs without having it remain on the street and thus drawing even more attention to an already bad situation.

While the spill feature is great, when at the landfill and either hoisting the body or ejecting, the oil level will fall below the float. The control box has a momentary override switch that enables the pump to remain on while completing the dump operations. After the body is lowered, or in case of eject, the packer returns, the float rises and normal system operation is restored. Then just flip the switch off and go, and know that you are operating more efficiently and eco-friendly than ever before.

FOR MORE INFORMATION, CALL (855) 850-4777 OR VISIT WWW.HYDPUMPSTOP.COM.

Safe and Legal with LoadMaxx!



LoadMaxx On-Board Scale
Mechanical or Air Suspensions

Air-Weigh

1-800-253-0276

www.Air-Weigh.com



CLICK HERE FOR MORE INFORMATION!

Breakthroughs and Innovations

DEL HYDRAULICS (Buffalo, NY) is an manufacturer of feathering pneumatic valves, "EZ Fit" pneumatic shift cylinders, joysticks and consoles for the refuse industry in both OEM and after market. The DAV1221 air control valve is a 4-way compensating air valve to control the movement of pneumatic shift cylinders on refuse vehicles. The shift cylinders' unique design allows balanced areas for consistent proportional control in both directions. The self-alignment feature for aligned and misaligned hydraulic spools eliminates binding and jamming. They are also a manufacturer of hydraulic hoists for the dump body industry (green design) as well as a distributor of truck mounted cranes with high European standards.

FOR MORE INFORMATION, CALL (716) 853-7996 OR VISIT WWW.DEL.US.COM.





1385 Industrial Drive, Kahoka, MO 63445

**Quality Materials & Workmanship
Superior Design!**

We use quality materials along with superior design and workmanship to provide you with all of your container needs. Our management, sales and production teams strive to make your buying experience worth your time and money.

**Phone: (877) 202-0505
Fax: (660) 727-1352
www.gregorycontainer.com**

**CONTACT OUR SALES TEAM:
SHAWN (319) 316-3141
SONYA (877) 202-0505**

BEST CONTAINER VALUE IN AMERICA TODAY!



**REAR LOAD CONTAINERS
1-8 YD IN STOCK**



**RECYCLING CONTAINERS
RECEIVER BOX • FLAT BED BOX**



**TUB STYLE AVAILABLE
VARIETY OF SIZES,
BUILT TO LAST!**



**FRONT LOAD CONTAINERS
2-4 YD — STANDARD SLANT
6-8 YD — SLANT • LOWPRO • DOCK**

**CUSTOM ITEMS
BUILT PER REQUEST
VARIETY OF COLORS
TO CHOOSE FROM
DELIVERY AVAILABLE
AT REASONABLE RATES!**





SHOP!

**CLICK HERE FOR
MORE INFORMATION!**

WasteAdvantage^{magazine}

The Advantage in the Waste Industry

 Recycling  Transfer Stations  Landfills

Waste Advantage Magazine's Recycling/Transfer Stations/Landfills (R/T/L) section has become a very important part of our readership. Our timely, relevant editorial in this section—products/services releases, statistics, short tips, etc.—provides you, our R/T/L professionals, with the useful information that you need when making that important purchasing decision.

By making this important move, *Waste Advantage Magazine*, provides something for everyone in the waste and recycling industry and makes it the most complete one-stop-shop publication available today. We look forward to expanding our coverage of this segment of the industry and hearing your feedback.

Content

- 48** **Recycling**
Five Ways Recycling Can Benefit Your Community
LEAH BLUNT
- 51** **Landfills**
Communicating the Benefits of Landfill Gas Energy Projects
- 56** **Transfer Stations Case Study**
The Benefits of Fabric Structures as Waste Transfer Stations
JAIME GLEBA
- 57** **Products/Services**



Recycling

Five Ways Recycling Can Benefit Your Community

Leah Blunt

5

WE ALL KNOW RECYCLING IS GOOD FOR THE ENVIRONMENT,

but many don't realize the ways recycling can positively impact their own community. These days, there are more than just moral incentives for communities to establish recycling options and encourage participation. Here are five ways the benefits of recycling can hit close to home.

#1: Creates Green Jobs

Recycling has become a major industry that reaches far beyond your average curbside pickup program. According

to the U.S. Bureau of Labor Statistics, by 2010 employment in green goods and services accounted for 3.1 million jobs in the United States. The green job potential grows exponentially the more communities invest in their own recycling efforts.

It's easy to associate green jobs with what we see most often, such as curbside collection services, but that's just the tip of the iceberg. There is a lot to do with recycling that goes on behind the scenes. Once a recyclable material is collected, it usually requires processing to transform it into a valuable material that



LFG energy projects generate revenue from the sale of the gas. LFG use can also create jobs associated with the design, construction and operation of energy recovery systems. LFG energy projects involve engineers, construction firms, equipment vendors and utilities or end-users of the power produced. Much of this cost is spent locally for drilling, piping, construction and operational personnel, helping communities to realize economic benefits from increased employment and local sales.

Businesses are also realizing the cost savings associated with using LFG as a replacement for more expensive fossil fuels, such as natural gas. Some companies will save millions of dollars over the life of their LFG energy projects. By linking communities with innovative ways to deal with their LFG, LMOP helps communities enjoy increased environmental protection, better waste management and responsible community planning. For example, the Ecology Club at Pattonville High School in Maryland Heights, Missouri, came up with the idea to use gas from the nearby landfill to heat their school. The school paid \$175,000 to run a 3,600-foot pipeline between the landfill and the school's two basement boilers. In turn, the landfill owner donated the methane to the school as a way of "giving back to the community." The school anticipates that it will save \$40,000 a year and recapture its investment within five years. (www.epa.gov/lmop)



can be reused. From there, those refined materials get manufactured into new products made from recycled material.

None of these steps can take place without businesses and employees to collect, transport, process and manufacture recovered materials. When put in the context of the numerous types of materials collected, such as glass, plastics, paper and metal, it is easy to see how the potential for green jobs adds up.

#2: Earning Potential

The saying one man's trash is another man's treasure couldn't be truer than in the case of recycling. The market value of recycled or recyclable materials offers a great incentive for communities that recycle en masse. These days there are growing opportunities for communities to earn money by selling their recyclables or their already recycled materials. Processors and manufacturers often purchase them so that they can make new products for less money than with virgin material. With communities earning money and companies saving money, this is a recycling win-win. This also benefits communities who are not yet equipped to process their own materials locally.

Recycling can also help bring in the green when state and federal tax credits apply. Tax credits are available under various circumstances for implementing green practices, and are intended to offer an incentive for communities and individuals within them to make green changes. In the case of recycling, communities can see benefits when their government and local businesses invest in recycling facilities and equipment and promote recycling.

#3: Savings Potential

Recycling isn't just saving materials from the landfill; it's also saving expenses and resources for communities that participate. Recycling can help save money by diverting solid waste from regular garbage collection. Landfill fees are an easily overlooked aspect of tossing your trash out, but there are costs that add up and are usually absorbed by local budgets.

By offering efficient curbside pickup programs for recyclables and engaging community participation, the frequency of garbage routes and the amount of waste being sent to landfills can both be reduced. This can impact individuals in their neighborhoods, or on a larger scale can impact local businesses that might produce recyclable materials in large quantities.

More savings follow when local manufacturers use recycled materials to replace virgin materials during production. A wide variety of products ranging anywhere from bottles and clothing to car parts and appliances can be produced using recycled materials. This saves companies money, and preserves the community's energy and natural resource supply. All of which can help boost a local economy. The money companies save on production is often passed down to customers allowing the environmental and financial impact to come full circle.

#4: Reduced Community Impact

Recycling on a local level offers the chance to make a big picture difference. Many materials such as plastic bottles and aluminum are 100 percent recyclable, but unless they get collected, their potential is being trashed. Recycling significantly reduces the amount of materials that end up in our waste stream, which means less waste is landing in landfills or getting incinerated.



PLUG INTO SAVINGS!

CUT Scrap Tire Disposal!

Volume Reduction by 70%
Cut Your **Tire Disposal** Cost by 70%
Make Money in Scrap **Tire Disposal** Business!
Desco is now offering our complete line of
TIRE SHEAR AND DE-RIMMERS IN STATIONARY ELECTRIC UNITS.
Same quality and value as our portable gas and diesel units,
just another way to save on scrap tire recycling.

SAVE AND MAKE MONEY IN SCRAP TIRE DISPOSAL.



MODEL 2500



MODEL ST200



MODEL 2906



MODEL 4000



A CUT UP TIRE IS ONLY GARBAGE!

Full 2YR.
WARRANTY
On parts and labor



**800-344-0814 or
Mike in Sales at
712-202-3209**

Get a FREE DVD by calling us today 1-800-344-0814 or visit us on the web at
www.desco-usa.com

SHOP!



**CLICK HERE FOR
MORE INFORMATION!**

The processing and manufacturing of recyclables allows companies to reduce their reliance on virgin materials. Virgin materials are usually mined and processed, which requires energy and can pollute the surrounding environment. According to the EPA, producing new plastic from recycled material uses only two-thirds of the energy required to manufacture it from raw materials.

Recovered materials are a cost-effective solution that helps close the loop in the recycling process. They reduce carbon emissions and save energy, water and other natural resources in abundance. When a community collectively reduces its impact on the environment, it is setting an example for other communities on a national or even global level.

#5: Community Outreach/Involvement

In some cases, national partnerships are developed to assist local recycling initiatives, such as the recently announced partnership between the International Bottled Water Association (IBWA) and the Curbside Value Partnership (CVP). By coming together, both organizations will be involved in assisting local communities in developing their curbside recycling programs.

A study recently released by the National Association for PET Container Resources shows that as of 2010, plastic bottles were the most commonly recycled material collected in curbside collection programs nationwide, and are recycled at a rate of about 29 percent—a number IBWA hopes to see grow. “The partnership with CVP presents an opportunity to beef up recycling rates for our packaging as well as other kinds through consumer education,” said Daniel Felton, the Vice President of Government Relations for IBWA. “And CVP has a fantastic track record.”

Baton Rouge, La. saw a 35 percent jump in recycling collection in 2006 when it switched to single-stream recycling and provided residents with larger carts. However, that fell short of the mayor's goal of increasing recycling tonnage by 50 percent. In 2007, Baton Rouge partnered with CVP to develop a campaign with consistent visuals and messaging linking recycling to pride in the city. The successful campaign has helped Baton Rouge surpass its goal of a 50 percent recycling increase.

CVP has helped launch at least 23 community recycling programs and has measured an average increase in recycling of 23 percent and an 18 percent increase in participation among them. Although, through its work, CVP has learned an important lesson to apply: no two communities are alike. IBWA agrees suggesting this notion applies in many contexts. “It can be politically relative, economically relative,” said Felton. “Is the community willing and able to participate? Is it rural or urban? Is the population high?”

There are plenty of factors to consider that make communities unique. However when people come together to achieve a common goal it can help create attributes that any community would find valuable. Implementing local recycling solutions can help communities develop communication, motivate local participation and help develop valuable partnerships on a local level. **WA**

Leab Blunt is the Partner Fulfillment Manager for Earth911. This article was reprinted with permission from www.earth911.com. Visit the original link at <http://earth911.com/news/2012/05/14/5-more-ways-recycling-can-benefit-your-community/2>. Earth911.com hosts the nation's largest recycling directory and writes daily stories to help you reduce, reuse and recycle more. Visit their site to read the latest ideas and tips to minimize your impact and learn how you can recycle more where you live.

HEALTH & HOSPITAL EQUIPMENT | MATERIAL HANDLING EQUIPMENT | FOOD SERVICE PRODUCTS | SPECIALS & CUSTOMS | GSA CONTRACT #GS-07F-0612X | VA CONTRACT #V797P-20880

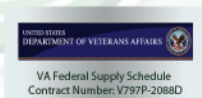


Polyethylene Caster Carts for Medical Waste, Secure Documents or Refuse Collection

- North America's Leading Medical / Bio-Hazardous Waste Container
- Superior Component Design and Polyethylene Cart Provides Years of Service Life
- Meets all DOT Regulations for a Wheeled Outer Transport Container
- Ergonomic Design with Stackable Lid Featuring Caster Pockets
- 200 Gallon & 150 Gallon Capacities
(Additional Sizes Available, Including Customs)
- Value Added Options: Fork-Lift Plates, Tow-Hitches, Molded-In Decals and More
- Ships Fully Assembled

845-889-4000

www.unifuse.com/waste



2092 Route 9G, Staatsburg, NY 12580 • Order by Phone: (845)889-4000 • Credit Cards & Gov't P-Cards Accepted • E-mail: info@unifuse.com



**CLICK HERE FOR
MORE INFORMATION!**

Landfills

Communicating the Benefits of Landfill Gas Energy Projects



Tip:

Earth Day is a great time to promote your LMOP participation. Try to plan ahead. If you already have activities planned for Earth Day, think about promoting your project during October, which is Energy Awareness Month.

THE FOLLOWING TIPS ARE OFFERED FOR BEGINNING OR

expanding outreach efforts for your landfill gas (LFG) energy project.

Whom Do You Want to Reach?

- *Community leaders*, such as local officials (town or city council members, city managers, the mayor), and representatives from environmental groups, consumer and civic associations, schools, and nongovernmental and educational organizations.

- *Your neighbors*. People who live closest to your landfill are often the most interested in your project and its impact on the community and local environment. Even if your project is located in a rural area, nearby communities and people whose waste has gone to the landfill are interested in new developments at the landfill. Working with your neighbors and asking for their support is important to your project's success.

- *Employees, customers/users and shareholders*. Educating your employees and getting them interested in your LFG energy project is often an important first outreach step. Users of the energy generated or the landfill itself are also important target audiences. If you are a private firm, you also want to reach your customers and shareholders.

What Do You Want to Communicate About Your Project?

Environmental Benefits

LFG energy projects lead to cleaner air, including reductions of smog, odor, and greenhouse gas emissions. Use Landfill Methane Outreach Program's (LMOP) LFG Energy Benefits Calculator to estimate greenhouse gas reductions from LFG recovery projects.

Economic Benefits

LFG energy projects create jobs associated with the design, construction and operation of energy recovery systems. Much of the construction and development funding is spent locally for drilling, piping, construction and operational personnel. Also, economic development near the landfill may improve as a result of odor reductions or other project activities. In North Carolina, for example, LFG energy is used innovatively to provide heat and power to greenhouses and a craft studio, providing a unique economic development opportunity for the community. To estimate the economic feasibility or job benefits of an LFG energy project, LMOP Partners can use EPA's LFGcost-Web.

Community Benefits

All project partners benefit from using LFG, especially the community. LFG energy projects help ensure that local landfills are well managed and make the area around the site a better place to live.

Energy Benefits

LFG is a reliable, renewable, local fuel source that reduces our reliance on fossil fuels. LFG is one of the few renewable resources that directly reduces pollution to the atmosphere. Since LFG occurs naturally, when it is collected and converted to energy a fuel source is used that would otherwise be wasted. LFG energy projects are available to generate electricity over 90 percent of the time, 24 hours a day, 7 days a week.

How Do You Get Your Message Out?

Working with your local media is one of the most effective ways to communicate the benefits of LFG energy to your local

We use more than **80,000,000,000** aluminum soda cans per year. (www.earth911.com)

The aluminum can industry can make up to **20 cans** from recycled aluminum with the same amount of energy it takes to make one completely new can. (www.earth911.com)

An aluminum can **may be recycled forever** with no loss of quality. (www.earth911.com)



**WASTE & RECYCLING
EQUIPMENT SPECIALISTS**

CIS
Consolidated Industrial Services

SERVICES, SALES AND RENTALS.
WE SPECIALIZE IN REFURBISHING OLD EQUIPMENT.

QUALITY
SELECTION
**COST EFFECTIVE
RENTAL PLANS**
EXPERIENCE
FLEXIBILITY

Stationary Compactors
Self-Contained Compactors
Vertical Compactors
Vertical Balers
Apartment Compactor

SERVING NJ, PA, DE, MD & NY
Toll Free: 877.293.4237 | www.cisrepairs.com

SHOP!
CLICK HERE FOR MORE INFORMATION!

community. The environmental and community benefits of your LFG energy project, the potential for economic returns, and the technical innovations are selling points for a news story about LFG energy. Some of LMOP's tools that can help with this are the environmental benefits calculator and sample press releases.

Additional ways to communicate your message include conducting site tours, making presentations at community meetings, placing advertisements in print media and on TV and radio, creating brochures, flyers or posters, developing a display or booth for community events, and creating a project Web site. A checklist can help you keep track of tasks, and sample flyers and posters can provide inspiration.

When Is It Most Useful to Do Your Outreach?

Two rules of thumb apply to outreach activities:

1. *Start Early.* It's never too early to start letting people know about your LFG energy project. The sooner you publicize your project, the more time you'll have to get people acquainted with your efforts and excited about the positive impacts the project will have.
2. *Don't Stop.* From groundbreaking to ribbon cutting, your LFG energy project is big news. Keep your community and other stakeholders informed of your project's development, even once it is up and running. When your project comes on line, you will have many opportunities to share information and publicize your accomplishments.

Tips for Effective Communication About LFG Energy and LMOP

Educate

Even if it is second nature to you, many people in your community may not

RECYCLING LOCATION FOR SALE/LEASE!

**Located in:
FRESNO CALIFORNIA**
1/2 mile to Fwy 99 & 180

• 5 to 28 +/- Acres
• Fully Permitted
• M-3 Zoning
• Water
• Sewer
• Power

Belmont Ave
Marks Ave
cemetary

SITE
Possible
Scrap Yard
Transfer Station
Scale and
Various Bldgs.

Wrecking yard

**SELLER
FINANCING
AVAILABLE!!**

CONTACT: ROGER ANTHONY 559-222-9697
ANTHONYREALTY@AOL.COM

be familiar with LFG energy and how it works. It may be necessary to explain in detail what LFG is—that it is naturally generated as waste decomposes—and how it is collected and converted to energy. EPA offers some items in the Sample Outreach Tools that can help you explain LFG energy concepts.

Make it Personal

Engage your audience by showing them how they will personally benefit from your LFG energy project. Discuss benefits in terms of the local community and explain that supporting your project means they are supporting an important community and environmental initiative.

Be Credible

Be specific about your environmental achievements. Explain exactly what you are doing to help the environment, how your project reduces methane emissions, why methane should be collected and how you are improving the environment around the landfill as well as the global environment.

Keep it Simple

Use plain English and take time to define terms. For example, many audiences do not know that LFG can be used for energy. First explain how LFG is produced and then how it can be used as an energy resource. Then you can use the term “LFG energy” freely.

Make it Tangible

Methane reduction and LFG energy may be difficult concepts for people to understand or fully appreciate. When you translate the processes and benefits

into real-world terms, your audience is more likely to get the message. LMOP's benefits calculator, as an example, describes the environmental benefits of LFG energy projects in terms of trees planted, gallons of oil saved, etc. A site tour may make your project more tangible to your audience.

Promoting Your LMOP Participation

Your association with EPA gives your project credibility. EPA is a trusted source of information on environmental matters. Your participation in a voluntary EPA program that supports the development of LFG energy can help build credibility for your project and the legitimacy of LFG as an energy resource.

Your partnership with EPA is big news that highlights your commitment to environmental responsibility. Your participation in LMOP represents a voluntary commitment to helping the environment. By partnering with EPA and working together to implement solutions to environmental challenges, you serve as an example of the benefits of voluntary programs, something that your stakeholders—employees, customers, community members, and suppliers—can appreciate. | **WA**

—From www.epa.gov/lmop/partners/toolkit/comm-benefits.html.

In addition to the many promotional tools in Sample Outreach Tools, EPA can offer other ideas and assistance to LMOP Partners who want extra help in crafting their communications message. Contact your LMOP Territory Manager for more information.

EPA also regularly features LMOP Partners' accomplishments on their website and newsletter, the Gasette. If you think you might have a good story to share, let them know by e-mailing your LMOP Territory Manager.

Best Equipment, INC.

DETROIT, MI & DALLAS/TYLER TX/PHOENIX AZ
E-MAIL: BESTEQUIPINC@AOL.COM **33 YEARS SELLING HEAVY EQUIPMENT! WE TAKE ANY TYPE OF TRADE-INS!**

CALL JEFF LINTON: (313) 410-1381
WWW.BESTEQUIPINC.COM

<p>(2) CAT 826C</p> <p style="color: red; font-weight: bold;">VERY GOOD CONDITION!</p> <p>COMPLETELY REBUILT! \$208,000 RECENT SERVICE ORDER, RECORDS AVAILABLE, GOOD TIPS \$139,000-\$155,000</p>	<p>(2) CAT 836G</p> <p>NEW ENGINES, NEW TRAN, NEW WHEELS, CLEAN & TIGHT \$249,000</p>	<p>(2) CAT 836G</p> <p style="color: red; font-weight: bold;">COMPLETE REBUILD!</p> <p>POWERTRAIN REBUILT, COMPLETE REBUILDS, EXCELLENT MAINTANCE \$149,000-\$185,000</p>	<p>(2) CAT 836C</p> <p style="color: red; font-weight: bold;">LOW HOURS!</p> <p>POWERTRAIN REBUILT, COMPLETE REBUILDS, EXCELLENT MAINTANCE \$149,000-\$185,000</p>
<p>2010 MORBARK 1100</p> <p>500 HOURS, ALL OPTIONS CALL FOR PRICING 60% OF NEW PRICE!!</p> <p style="color: red; font-weight: bold;">LIKE NEW! 2 YEAR WARRANTY!</p>	<div style="display: flex;"> <div style="width: 50%;"> <p>CAT 375L CAT</p> <p>80% TIRES, GOOD HISTORY \$129,000</p> </div> <div style="width: 50%;"> <p>CAT 735</p> <p>DEALER ENGINE, TIGHT, 2 BUCKETS \$135,000</p> </div> </div>		

WE HAVE WHOLESALE REBUILT COMPACTORS IN EVERY SIZE AND WE TAKE YOUR TRADES

SHOP!

CLICK HERE FOR MORE INFORMATION!

Transfer Stations Case Study

The Benefits of Fabric Structures as Waste Transfer Stations

Jaime Gleba

WASTE TRANSFER STATIONS ARE A PROMINENT PART

of any community's waste management system, helping to reduce waste hauling costs and provide convenience to customers. When designing the site for a new waste transfer station at a landfill facility, there are a variety of factors to consider. The EPA authored "Waste Transfer Stations: A Manual for Decision Making"¹ to help landfill operators make the best decisions for their facilities.



With the high clearance of this structure and no interior support poles, this company is able to load and unload materials with no difficulty. Photos courtesy of Clearspan Fabric Structures.

During the planning stages for a new waste transfer station, it is important to take into account the type of waste to accept, the types of customers to serve (public vs. private), and the site itself. When it comes to planning the structure to house the facility on the site, the following guidelines are recommended by the EPA:

- Vertical clearances of at least 25 to 30 feet to allow collection vehicles to unload
- No internal columns or posts to interfere with traffic or other activities

- Access doors tall enough to accommodate large vehicles

Traditional wood and metal structures can often fall short of meeting these guidelines and their costs can be prohibitive. An economical alternative to these structures is a tension fabric building, or fabric structure. These structures are economical and feature high clearances and a clear-span design that allow for maximum usable space for unloading and processing. Because of these qualities, many solid waste disposal companies are turning to fabric buildings.

Fabric in Action: Iowa Waste Systems

Since 1996, Iowa Waste Systems (IWS) has specialized in providing collection, transfer, disposal and recycling services to customers in Iowa and southeast Nebraska. Their customers come from a wide range of industries, including commercial, governmental and residential. There are only three privately owned sanitary landfills in the state of Iowa, and IWS owns two of them.

The landfill facility located in Red Oak, IA was looking for a new structure to serve as their waste transfer station, but wanted a more cost-effective solution than buildings typically used for this application. Dave Kratz, a major shareholder of the company, is responsible for overseeing operations, personnel, equipment and marketing at IWS. He was chosen as the person in charge of finding the company's new structure and began to research the alternatives.

Kratz states, "A landfill site takes in about 10,000 tons of waste per year and the cost of building a new landfill cell every three to five years well exceeds over a million dollars. It only made economical sense to choose a fabric building for the facility because it is a long-term solution for a fraction of the typical cost." He decided that a 65'W by 65'L Hercules Truss Arch Building from ClearSpan Fabric Structures (South Windsor, CT) was the most practical choice for his company's needs.

Besides being such a cost-effective option, the company enjoys many other advantages over a typical transfer station building. Kratz explains, "The simple design of the building allowed for a more efficient and economical construction than that of other structures, and has made the company much less costly to operate."

He continues, "Our cost of daily operation has dropped significantly since owning our fabric structure. We no longer have to cover the waste daily with dirt, we use less fuel, and we have been able to do business with two less pieces of equipment and operate with one less employee."



A fabric building is an ideal landfill facility because it is a long-term solution for a fraction of the typical cost.

The fabric building makes their clients happier, too. "Our customers like being on concrete in an enclosed facility instead of being outside and dealing with the elements like mud, snow and wind. This makes the structure excellent for public relations," says Kratz. He continues, "Even our neighbors have benefitted from the building. We have eliminated windblown litter because the waste is kept covered inside."

Kratz and IWS are thrilled with their choice of a fabric building. He concludes, "Our fabric structure is working out great and costs half of what a traditional transfer station would. I hope that this opens the door for more

Now There's an Easier Way to Buy Your Parts!



BalerandCompactorParts.com

The source for all of your Baler, Compactor and Roll-Off Truck Parts. You no longer have to shop around to find all your parts needs.

Baling Wire • Hydraulic Parts • Hydraulic Pumps • Hydraulic Cylinders • Electrical Parts • Electric Motors • 22.5 Switches • 30mm Switches Keys • Motor Starters • Vertical Baler Parts • Container Parts • Decals • And Much More!

BRAND NAMES INCLUDE:

Marathon
NexGen Baler
International Baler
Selco Baler
Harris Baler
Galbreath
Wastequip-Accurate
McClain
Load King Baler
Excel Baler
Economy Baler
Logemann Baler
Cram A Lot
Max Pak Baler
AND MORE!

SHOP NOW!

BalerandCompactorParts.com

Call Toll Free at 877-376-0622



CLICK HERE FOR MORE INFORMATION!



**TUFFMAN "MINI" 4-MAN
SORTING STATION**



**TUFFMAN MODEL 822
STATIONARY TROMMEL SCREEN**



**TUFFMAN MODEL 722
BAG BREAKER TROMMEL**



**TUFFMAN 12' PORTABLE
INCLINE CONVEYOR**



**TUFFMAN 8-MAN HD-P
PORTABLE SORTING STATION**



**TUFFMAN CBS 30
CROSSBELT MAGNET**



**TUFFMAN MODEL 722
STATIONARY TROMMEL SCREEN**



**TUFFMAN 8-MAN STATIONARY
SORTING STATION**



**TUFFMAN 532ED EXTREME
DUTY CONVEYOR**



**TUFFMAN CBS 48
CROSSBELT MAGNET**



TUFFMAN

A DIVISION OF WORLDWIDE RECYCLING EQUIPMENT SALES, LLC.

ALL TUFFMAN EQUIPMENT CAN BE CUSTOM BUILT TO FIT YOUR NEEDS!

WE WILL MATCH OR BEAT ANY PRICE!

1414 RILEY INDUSTRIAL BLVD, MOBERLY, MO 65270

PHONE: 660.263.7575 | E-MAIL: WWWREQUIP@WWWREQUIP.COM

SEE ALL OF OUR EQUIPMENT ONLINE AT WWWREQUIP.COM



**CLICK HERE FOR
MORE INFORMATION!**

ALL TUFFMAN PRODUCTS ARE MANUFACTURED BY WORLDWIDE RECYCLING EQUIPMENT SALES, LLC.

waste management facilities who still rely on the typical low-volume, high-cost landfills, to consider switching to fabric buildings.”

Why Fabric Works for IWS

Because IWS needed an economical, long-term solution to use as their waste transfer station, they looked beyond the conventional options and chose a fabric building. Mounted on a concrete wall for added height, the building has two 16'W by 28'H doors and commercial waste vehicles are able to unload with ease. The design of the structure promotes smooth operations with no internal support posts and high clearances.

While construction on a wood or metal building can take months, the construction timeline of a fabric building is as short as a week, saving on construction costs and minimizing interruption of landfill operations.

Not all states have regulations that transfer stations must be covered by a structure, but IWS recognizes that covering theirs with a fabric building was a smart investment for the company. Improved public relations, and lower equipment and operational costs will contribute to their long-term success.

The Future in Fabric

Many segments of the waste management industry are choosing fabric structures over other options. From transfer stations to equipment storage to clarifier covers, these versatile structures are increasing in popularity as their benefits over conventional structures become progressively clearer. The waste management industry continues to evolve and the importance of cost-saving decisions that improve operations has never been greater. | **WA**

ClearSpan Fabric Structures is a leading manufacturer of tension fabric buildings.

The company is headquartered in South Windsor, CT, with manufacturing facilities located in Dyersville, IA. All structures are made in the USA. ClearSpan specialists guide customers through the process and communicate with in-house design, engineering and manufacturing teams. For more information, call (866) 643-1010 or visit www.clearspan.com/ADWA.

Notes

1. www.epa.gov/osw/nonhaz/municipal/pubs/r02002.pdf



WASTEC
Rated Stationary Compactors Listing
Revised for 2010

The listing rates compactors based on physical and performance criteria. It was created by the industry as a reference for anyone needing to accurately compare one unit to another.

Visit www.WASTEC.org to order yours today!

CLICK HERE FOR MORE INFORMATION!



www.greenpowerconferences.com
+1 971 238 0700



Biogas USA East & Midwest

19-20 June 2012, The Mid-America Club, Chicago, USA

Maximize the profitability of your project

Your speaking faculty will include:

Dr Susan Hedman,
Region 5 Administrator,
US EPA

Daniel LeFevers,
Executive Director,
Gas Technology Institute

Douglas Clark,
Chairman,
NGV America

Paul Sellew,
Chief Executive Officer,
Harvest Power

Jon Best,
Senior International Account
Manager, Renewable Energy,
Cat Power Finance

Ross Blaine,
Director of Innovation
and Sustainability,
Grober Group

Bill Jorgenson,
Managing Partner,
Agreen Energy

Greg Northrup,
Principal,
Sustainable Partners

Beatrice Torgnyson Klemme,
Project Manager,
Biogas Öst



Please quote
**Waste Energy
Magazine**
when registering

5 reasons to attend in 2012:

- ✓ Increased focus on the exciting feedstock possibilities of the food and beverage process: how you can capitalize on these waste streams
- ✓ Seek out new end markets for your project, including gas pipeline injection and biomethane as a transportation fuel
- ✓ Get your questions answered from utilities and regulators: how can the project development process be simplified?
- ✓ Meet investors to find out first-hand the critical factors for attracting investment to your project in the absence of 1603
- ✓ Optimize the revenue from your project: hear case studies on how to develop markets for waste products, improve plant performance, and successfully utilize co-digestion

For more information and to book your place visit www.greenpowerconferences.com/biogaseast

**CLICK HERE FOR
MORE INFORMATION!**

RTL | Recycling | Transfer Stations | Landfills

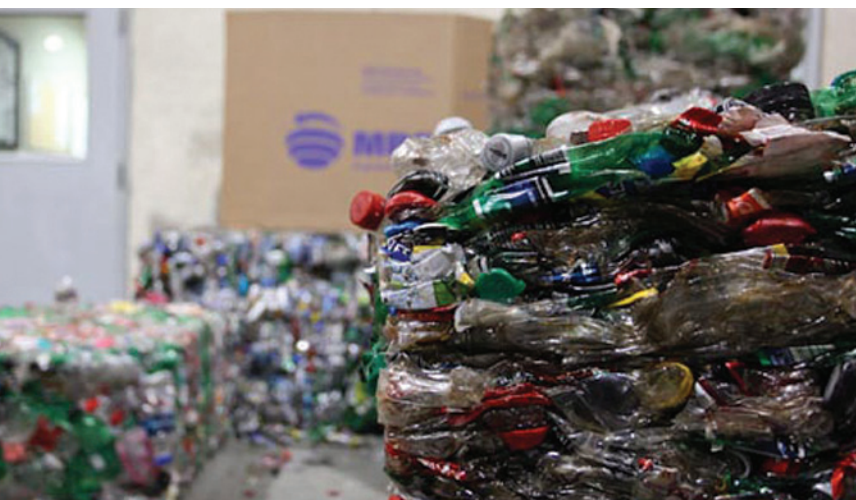
RADCOMM SYSTEMS (Oakville, ON), an innovative worldwide manufacturer of radiation equipment, announces the debut of their MedSpec handheld detector. The MedSpec will allow landfills and transfer stations across the world to quickly identify whether a suspected "hot" load of waste is medically-sourced radiation. Instead of the waste company calling the state or local government in order to get the radioactive load identified, they can identify what type of radiation it is for themselves immediately with the MedSpec. If identified as "medical waste", for example, the waste company can dump it at the appropriate facility and does not have to waste the time and money by calling in a government inspector to survey the suspected load, which may take several days to several weeks and cost thousands of dollars. The MedSpec will save landfills and transfer stations time and money by preventing the quarantine of waste vehicles and keeping them on the road.



FOR MORE INFORMATION, CALL JEFF ADAMS AT (800) 588-5229 OR VISIT WWW.RADCOMMSYSTEMS.COM.

MRC POLYMERS (Chicago, IL) is a thermoplastics recycler and supplier of engineering-grade, sustainable polymer compounds. MRC Polymers reclaims various grade thermoplastics from post-consumer plastic scrap (like car bumpers, large water bottles, advertisement sheets, etc.) and post-industrial plastic waste (such as CDs, DVD covers, etc.) and manufactures engineering-grade and commodity thermoplastic compounds. Through closed-loop Recycling, MRC helps clients by providing solutions for their scrap plastic. Using strict quality control at every stage, MRC sorts, grinds, washes and formulates the scrap plastic into a homogenous lot of resin ready for molding. Turn your plastic recycling problem into an opportunity by:

- Eliminating freight planning and logistic hassles with one call. MRC arranges plastic scrap pickup throughout the U.S. and in Canada and Mexico.
- Stop sending coated plastic scrap to land fills and turn it into cash. MRC's proprietary system removes metalized coatings and paint.



- Maximizing scrap collection in limited warehouse space. Contact MRC to drop trailers for collection. For higher volume scrap, MRC will provide onsite balers.
- Ensuring destruction of proprietary information on scrap materials. MRC provides a secure storage environment prior to processing and guarantees documentation of destruction.
- Making a commitment to "made in USA" and American workers. MRC is a recycler and manufacturer, not a re-seller. Plastic scrap recycled by MRC is processed in their compounding operation to produce engineering-grade resin pellets for domestic manufacturers.

Help for plastic recycling questions and problems is a click away.

FOR MORE INFORMATION, CALL (773) 890-9000 OR VISIT WWW.MRCPOLYMERS.COM.

WASTEQUIP's (Charlotte, NC) BiobiN® Organics Collection System is the ideal solution for commercial organics recycling. BiobiN is a unique organics collection container with a patented biofiltration system that creates an aerobic environment to minimize odors and the attraction of pests between hauler collections. By capturing odor and reducing volume, BiobiN provides a sustainable option for organic waste collection, enabling generators to increase recycling rates while decreasing the number of pickups, and their related costs and carbon emissions.

Companies that use BiobiN organic waste collection systems have experienced great results including reduced costs of transportation and tipping as well as eliminate of odor and pests normally associated with food waste collection. The BiobiN organics collection system makes organics collection less costly and cumbersome by offering the flexibility to meet your needs. With various sizes and styles of collection containers ranging from 1 yard to 25 yards, BiobiN systems can be used in a variety of applications, even where space is at a premium. Features include:

- Easy to set up 110 volt plug—no installation costs or complicated electrical hook-ups
- Quiet BiobiN filtration system automatically captures odor out of the container
- BiobiN is available in a standalone design or as a wall mount unit
- Quick release hoses
- Simple to maintain—simply change filter
- Works with ASTM 6400 compostable liners

FOR MORE INFORMATION, CALL (877) 468-9278 OR VISIT WWW.WASTEQUIP.COM.



SHREDDER FOR SALE



CONYERS, GA • (678) 458-6713 • WWW.ALLIEDRECYCLINGINC.COM



2006 750D HAMMEL

REDUCE YOUR LANDFILL FEES!

Shred white goods and
autos for cheaper transportation
**\$275,000.00 Power Screen Trommel for
JUST \$65,000.00**
Call today! 678-458-6713



NEXEO SOLUTIONS' (Dublin, OH) Environmental Services Group began in 1981 as an environmentally responsible business solution to their chemical customers' concerns with the then-new hazardous waste regulation, under the Resource Conservation and Recovery Act. They have taken the concept of chemical distribution mastered over time, and created a reverse distribution business around their customers' chemical and industrial waste reuse, recycling and disposal needs—with the safety of their customers and communities in the forefront.

Nexeo Solutions can provide onsite environmental expertise so that you can minimize your costs while you focus on your core business. Dedicated Integrated Resource Management service teams provide best-in-class, on-demand, onsite service, including:

- Turnkey waste management and logistics
- Recycling optimization and management
- Environmental sustainability
- Green and zero landfill initiatives
- Vendor consolidation and management
- Supply chain optimization
- Secure material destruction
- Waste water operations management
- Chemical management and conveyance
- Spill response and industrial cleaning

FOR MORE INFORMATION, CALL (800) 637-7922 OR VISIT WWW.NEXEOSOLUTIONS.COM.



BIG BLUE GOES GREEN is a fun and easy to understand teaching tool for children to learn about the importance of recycling. The book is about a garbage truck named Big Blue who learns a valuable lesson in what it means to go green. While at the landfill, Big Blue meets a new friend, Rita Recycler, who teaches him how to lighten his loads through recycling. This compact 8 ½ X 8 ½ children's book is fully illustrated with vibrant colors. It is a book that children will want to read over and over again.

Big Blue Goes Green was written by Sally Weihs, owner of R & S Waste Systems in Defiance, IA. As a celebration of their 35th year in business, she wrote the book to give back to their communities and to help those affected by drug and alcohol abuse. All sales proceeds will be donated to Teen Challenge of the Midlands, a nonprofit drug and alcohol rehabilitation program for people of all ages. *Big Blue Goes Green* is selling for \$15.00 plus shipping.

BIG BLUE GOES GREEN IS AVAILABLE BY CALLING R & S WASTE AT (712) 748-3471, E-MAIL BIGBLUE@FMCTC.COM OR VISIT WWW.AUTHORHOUSE.COM.

TURN RECYCLED BOTTLES INTO CASH!

MAGNUM PAVER MOLDS

BUILD INTERLOCKING PAVERS FROM RECYCLED MATERIAL!

GREAT FOR TIPPING FLOORS, TRUCK PARKING & DUMPSTER PADS!

Magnum Pavers are 6 sq. ft. pavers that are 6" thick. Magnum Paver Molds are a gang form of 4 pavers.

BUY THE MOLDS MAKE THEM YOURSELF SELL TO YOUR CUSTOMERS!

Call Terry Kirk today for more information!

Star Precast Concrete
(970) 285-2552
www.magnumpavers.com

ARC 22nd Annual ARC Conference & Trade Show

2012

RECYCLING IN THE ROCK

September 12-14, 2012

Robinson Center and Double Tree Hotel, Little Rock, Arkansas

CLICK HERE FOR MORE INFORMATION!



CLICK HERE FOR MORE INFORMATION!