

# Greenlight New Day. New Way.

**Tony Kresge**  
Electrical Instrument Technician,  
Maintenance Department




## Meet DRP

### Employee Highlight: Tony Kresge

A highly skilled electrical instrument technician, Tony Kresge has years of experience that pay off as he troubleshoots and corrects daily issues to improve a process that constantly reflects the quality of his work. Tony recalls a time when he was young and trash was “simpler.” Thirty years ago, trash was mostly paper and glass, but it has evolved into a mix of exotic metals, plastics, and other synthetic materials, according to Department of Environmental Protection records.

“When I tell people that I work at Detroit Renewable Power (DRP), they immediately want to know more about how we make power through waste disposal,” said Tony. “I’m proud to be able to explain the benefits of energy-from-waste technology—especially in comparison to the landfill approach of hiding your trash in the ground and trying to forget about it.” Tony clearly takes pride in his role at a “renewable energy power plant” and is happy to share his insights into the EFW process and its use around the world. He notes that the onsite metal recovery offsets raw material mining impacts, and the

environmental safeguards in place at DRP ensure sound air quality and water protection.



Tony has more than 30 years of engineering and maintenance experience at manufacturing facilities throughout Michigan, which provide him with a unique perspective on DRP and the city

it serves. “New ownership has opened up new opportunities to excel here,” Tony states. DRP’s capital investment, procedural changes, permanent repairs, and operations assure Tony that the company is committed to having a world-class facility and bringing its people along as it rises to the top of Detroit’s green energy industry. Tony adds, “I’m proud to work with such a large group of talented people.”

Tony is adamant that energy-from-waste technology will always be a positive solution for waste disposal. “I would like the public to have an equally positive perception and understanding of what we do to make safe, reliable energy here.” •

### Did you know?

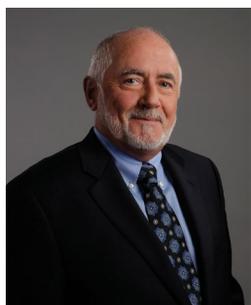
Each year the U.S. Environmental Protection Agency (EPA) reports on the nation’s municipal solid waste (MSW) facts and statistics. The most recent report cites an increase in the U.S. recycling rate by **more than 27 percent** over the past 10 years, diverting **85.1 million tons** of MSW per year. For more information, visit [www.epa.gov](http://www.epa.gov).

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## A Note from John O'Sullivan



At the end of a long, hot summer in Detroit, I want to thank our people for their diligence in operating and maintaining this world-class renewable energy-from-waste facility.

The record heat raised power demand for air conditioning and challenged our ability to con-

trol odor, but in the end it brought out the best in our staff. We implemented waste scheduling techniques to reduce odor and launched a new, independent survey and notification network to help us better identify their sources. Inside the plant, we're making steady improvements, many of which are based on proven "Lean" manufacturing principles (see article below). In our neighboring community, we're excited about an experiential learning collaboration with Golightly Education Center, where our own plant experts

will work with sixth grade students on interactive energy and environmental topics.

Generating clean energy, improving technology, and expanding local, hands-on education—there has never been a better time to be part of Detroit Renewable Energy. •

Best Regards,



## High Points Milestones.

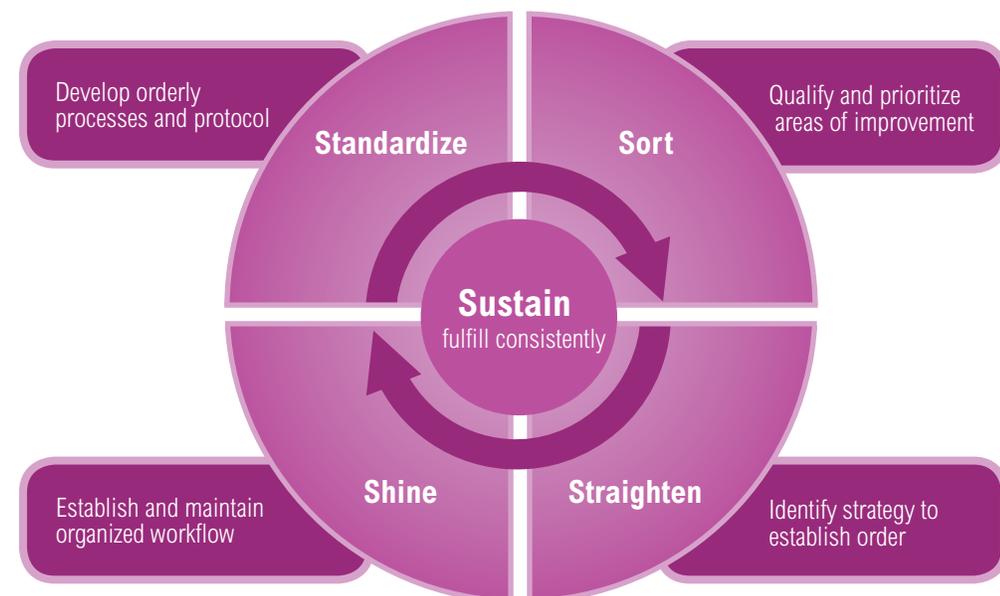
**At the end of July, as part of another long-term investment in the development and enhancement of its facilities and people, Detroit Renewable Energy (DRE) sent**

30 employees from across the consortium (Detroit Renewable Power, Detroit Thermal, and Hamtramck Energy Services) to participate in the first phase of Lean Manufacturing Training ("Lean"). Lean has a long-standing track record of finding, enhancing, and streamlining efficient operational processes pivotal to almost any end product. Made popular by Toyota in the late 1980s, Lean has been adopted by many U.S. companies over the last two decades, including GE, Herman Miller, and Sealy, as a means for companies to get a leg up in their industry.

This first phase of the Lean journey, **5S**, begins with sorting, setting in order, shining, standardizing, and sustaining each work area in a business environment to maximize productivity.

"We're excited to finally have Lean Manufacturing underway at the Detroit Renewable facilities," DRE Board Member Mark Hepp states. "We will soon be able to reach a point where every employee will be able to speak to plant functionality and progress based upon live input."

The main philosophy of Lean is that by decreasing cycle time and increasing productivity and



5S Map: a Lean tool for implementation

capital equipment utilization, less inventory, time, and money will be wasted.

Through the strategic review of operating procedures, risks, production process, output, and quality controls, Detroit Renewable Power (DRP) employees will be able to map their way to successful improvements and efficiencies. DRP President John O'Sullivan is pleased about the program and the future. "This is an opportunity to capitalize on the vast knowledge of our work-

force in developing a long-range improvement model for DRP," he states. "Whether we develop standardized operating procedures or just-in-time MSW deliveries to minimize odors, I know the end result will have a substantial and favorable impact on the stable flow of renewable energy."

Employee commitment and appropriate resource allocation and training are the backbone of Lean Manufacturing through a path of continuous, effective, and efficient assessment. •



## FAQ The Tip Floor.

Addressing the issues that matter most to our community is a priority at DRP and we strive to provide in-depth, well-educated responses to the inquiries we receive. In this section, we highlight some of the most frequently asked questions posted to our website. To submit a question to Detroit Renewable Power, please visit our website at [www.detroitrenewablepower.com](http://www.detroitrenewablepower.com).

**Q What is the difference between Michigan Waste Energy, Greater Detroit Resource Recovery Authority, and the Detroit Renewable Energy (DRE) Consortium?**

**A** The DRE Consortium is the collection of three businesses under the parent company

of Detroit Renewable Energy. They include Detroit Renewable Power, Detroit Thermal, and Hamtramck Energy Services. Michigan Waste Energy is the previous facility owners' local "doing business as" (DBA) name, which is now known as Detroit Renewable Power (DRP). Greater Detroit Resource Recovery Authority (GDRRA) is a separate

entity from the City of Detroit with a mayor-appointed board of directors responsible for commercial, industrial, and residential waste disposal solutions, including the transportation, recycling, and sale of waste for steam and power generation, as well as disposal. GDRRA has contracted with DRP to provide many of its services.



## Energy from Waste

### In-Depth

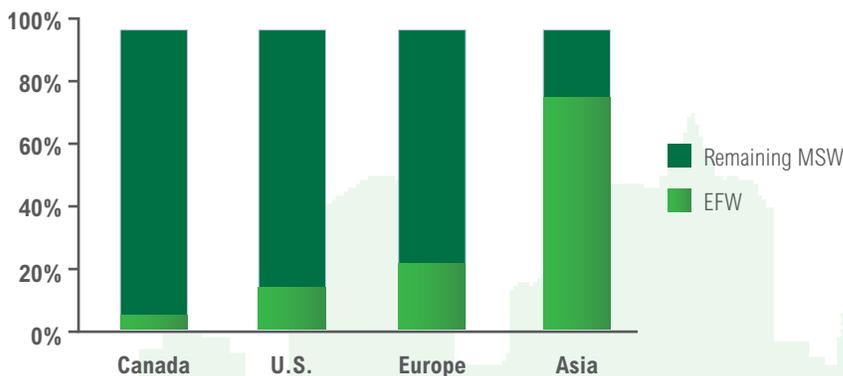
The European Union has more than 429 energy-from-waste (EFW) facilities in operation, the majority of which are co-generation plants like Detroit Renewable Power. By producing both electricity and steam in the neighborhoods they service, these EFW facilities are applauded for reducing the carbon footprint that occurs from shipping trash to outlying areas. Europeans have vigorous recycling programs that

work hand-in-hand with EFW, thereby reducing and/or eliminating methane and other greenhouse gases, groundwater contamination, and the degradation of useful land that occurs with landfill development. Based on EPA research, EFW technology is capable of producing approximately 10 times more electricity while having two- to six-times cleaner emissions control per unit of electricity than landfill-gas-to-electricity projects.

### Up-Close

As of 2010, there are 86 energy-from-waste facilities in the U.S. that process more than 97,000 tons of municipal solid waste to generate 2,790,000 kWh of electricity each day, based on Energy Recovery Council information. In actuality, the U.S. represents only 11 percent of the global energy-from-waste industry, which includes eight facilities in Canada, 388 in Europe, and 301 in Asia. In total, 160 million tons per year, or more than 438,000 each day, of municipal solid waste is converted into energy. •

Global Energy-From-Waste Industry



## Safety Spotlight

As another step in becoming a best-in-class facility, DRP has created a new department, called the Facilities Support Department, which is organized predominantly from existing employees. The department will take on the responsibility for organized and scheduled cleanup of debris and materials to increase individual and equipment health and safety. "We were finding staff pulled in a variety of directions and struggling to keep up," said Facilities Support Supervisor Kevin Kadau. This major undertaking by the Facilities Support team plays an important role in employee safety as well as production of the plant. Keeping areas around critical equipment free of debris allows for more effective maintenance and operator oversight. Keeping these activities going on a scheduled and routine basis allows the operators to keep their focus on the main goals of the plant: system utilization and maintaining an ideal production pace. Kevin added, "Now, we provide consistent, thorough cross-departmental support services." This proactive initiative has also contributed to an **80 percent reduction** in potentially unsafe conditions around the campus.

### Terms Defined

highlighted in this issue of the *Greenlight*:

**5S** n. — a set of workplace techniques that provide a standard approach for implementation. Like most elements of JIT within Toyota, the 5S genesis started, specifically developed from five Japanese words. The cornerstone of 5S premise is that organized orderly processes and environments are the most productive.

**Carbon Footprint** n. — a measured amount of Greenhouse gases, and specifically carbon dioxide, emitted into the atmosphere through a defined individual, company, process, function, or action.



# Family Tree News A Sister Company of DRP.

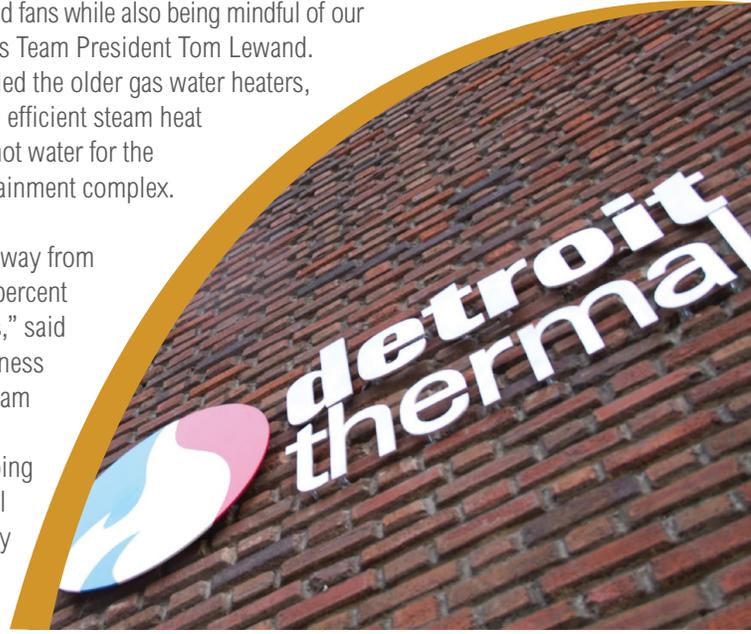
## Detroit Thermal, the district energy steam system and sister company to Detroit Renewable Power in the Detroit Renewable family, is now providing steam to Ford Field.

When the Detroit Lions faced off against the Minnesota Vikings on September 30, Ford Field visitors and players experienced, for the first time, enough hot water to satisfy the need, thanks to Detroit Thermal (DT). DT worked closely with Ford Field to replace the stadium's natural gas hot water heating system with three steam heat exchangers that will improve efficiency, reduce environmental impact, and meet expanding facility demand.

"We were excited to have the opportunity to work with one of our local partners to provide a superior

stadium experience for team and fans while also being mindful of our environment," said Detroit Lions Team President Tom Lewand. Ford Field removed and recycled the older gas water heaters, trading them for smaller, more efficient steam heat exchangers that will produce hot water for the 65,000-seat sports and entertainment complex.

"We estimate the conversion away from natural gas will result in a 32 percent reduction in carbon emissions," said Scott Barr, DT director of business development. The versatile steam exchangers heat water quickly when needed, rather than keeping large quantities of water hot all the time—and are one of many contributions DT is making to Detroit's revitalization. •



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