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A Detroit Renewable Energy LLC Company

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Greenlight New Day. New Way.

Darren Coleman
Fuel Process Control Room Operator

Meet DRP

Employee Highlight: Darren Coleman

For Darren Coleman, working at Detroit Renewable Power (DRP) means working at a facility that makes safety its top priority. As a fuel process control room operator, Darren has been with the company since it became DRP in 2010. He is responsible for ensuring safe and efficient operation of the process side, monitoring the flow of the waste stream, and maintaining calm working conditions.

Having worked at the facility before it became DRP, Darren is able to observe ways in which the organization and its values have changed—and safety is chief among these positive changes. "To see where this company started and where it is now, a lot of things have changed for the better. We really have a positive future," Darren said. "My main goal is for no one to get hurt, and safety has become a priority issue. We were safe before, but it wasn't a top priority. It is now."

Safety isn't the only change Darren has observed. He also feels a greater sense of the facility's potential, both for its operations and its employees. "You see a lot more possibilities now. Process is not overlooked anymore; now our function is truly valued."

Darren brings dedication, professionalism, and expert knowledge to the control room each day. Originally from Pontiac, Darren moved to Detroit to join the waste process industry 18 years ago. He started out in a pick station role and worked his way up. "I'm proud of myself for taking on the challenges presented as far as advancement, such as learning to operate heavy equipment," Darren said.

"The job is a challenge, but along the way, you look for different challenges—and this is one I accept and embrace."

Darren credits his team with boosting his own success and determination. "We all work hard, and they are as equally dedicated as I am to achieving what we do here." He and his team work with an understanding of how their roles in the control room foster the success of the company overall. "If the company is successful, we all are successful," Darren said.

When he's not managing the flow of DRP's MSW and RDF waste streams, Darren enjoys spending time with his family, including his 16-year-old daughter. •

Did you know?

Research shows that energy-from-waste (EFW) facilities tend to be associated with increased recycling efforts. In fact, the five European nations with the highest recycling rates—Germany, the Netherlands, Austria, Belgium and Sweden—also have among the highest EFW usage. Less than 1 percent of the waste produced by these nations goes into landfills. In America, 69 percent of municipal solid waste winds up in landfills.

(Source: MinnPost)

Inside this Issue

We invite community members to view future issues of DRP's "Greenlight" on our website, www.detroitrenewable.com.

A Note from John O'Sullivan

Welcome back to "Greenlight," Detroit Renewable Power's (DRP) newsletter dialogue with our employees, business partners, and citizens and neighbors in Detroit.

DRP strives to be a good neighbor, a responsible employer, and a sustainable company—and to meet these high standards, we know we must continuously improve. That means keeping up with technology, developing our people, and becoming more efficient.

DRP's formal Continuous Improvement program involves implementing associates' ideas and formal practices that can make us more efficient. As one example, DRP utilizes the LEAN Manufacturing process, which was pioneered by Toyota in the 1930s. LEAN Manufacturing tools and practices will help us to improve quality, minimize waste, optimize processes, and become more cost-effective.

We look forward to sharing our new Continuous Improvement initiatives and results with our readers in future issues of "Greenlight" and in our annual Sustainability Report. Please enjoy this issue and contact us with any questions about our clean renewable energy business. •

Best Regards,

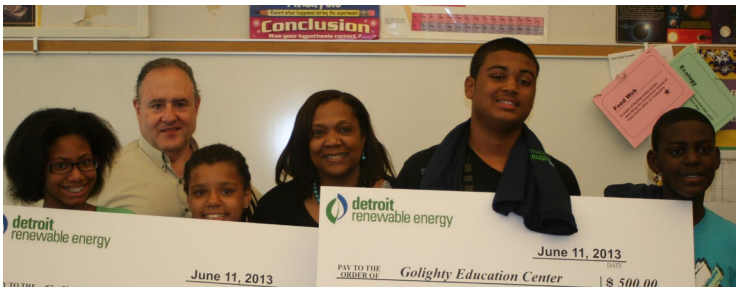
Community Connections

This spring, DRP actively participated in our community by supporting the Golightly Education Center, Detroit Public School athletics, and other educational events. We're proud to promote young students' engagement with science, environmental awareness, and team-building.

Education to Life Program a Success

DRE's Education to Life program helps foster environmental and social awareness in Golightly students. In May, employees from DT and DRP helped sixth grade students construct four raised garden beds. Alan Greenberg, director of environmental affairs for DRP, along with his wife (a "Michigan Master Gardener"), spoke to the classes several times to help them understand the science behind growing plants from seed.

On June 11, sixth graders at the Golightly Education Center presented their findings from the gardening project to a panel of DRP judges. The presentations highlighted what they learned and what they would have done differently. The DRP judges (including Allison Morgan, director of sales and marketing; Bill Alexander, environmental manager; and Marcus Ellis, quality control administrator) presented the classes with a $700 grant for science education and field trips.



Golightly student presenters and their teacher, Ms. Cheryl Vincent, are awarded a $700 grant by DRP's Alan Greenberg.

DRP Funds Basketball Team's Travel Costs

In late May, DRP funded transportation to Washington, D.C., for a team of Detroit Public School students (ages 6 to 12) participating in a basketball tournament. The team, the "Michigan Playmakers," took second place in the tournament. They also found time to visit the Martin Luther King, Jr., Memorial.

Golightly Students Win Awards at Future City Competition

The Future City Competition is a national program for middle school students sponsored by the National Engineers Week Committee. Held earlier this year in Novi, MI, the program challenges teams of students, a teacher, and an engineer mentor to design a fully functioning city located in a time and place in the future. Each team creates a city that includes residential, commercial, and industrial areas, power plants, waste handling systems, transportation systems, and communication systems. The Golightly Education Center team of Dario Coleman, Kacey Collins, and Khy Winston won trophies for the "Most Creative Use of Materials" and "Most Healthy Community."

Marcus Ellis Presents at Career Day

DRP Quality Control Administrator Marcus Ellis participated in the Career Day Fair at the Golightly Education Center on May 1. Inspired by Dr. Ben Carson, a native Detroiter and now world-famous neurosurgeon who spoke to Marcus's own sixth grade class, Marcus presented on "Dreams, Plans, and Goals." He also shared information and answered questions about recycling and his work at DRP. •

"Scientific management means a constant search for the facts, the true actualities, and their intelligent, unprejudiced analysis."
–Alfred P. Sloan

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.

Q What is the difference between "green power" and "renewable energy"?

A The U.S. Environmental Protection Agency (EPA) characterizes green power as a subset of renewable energy. Green power represents the renewable energy resources and technologies that provide the highest environmental benefit. The EPA defines green power as electricity produced from solar, wind, geothermal, biogas, eligible biomass, and low-impact small hydroelectric sources.

Renewable energy includes resources that rely on fuel sources that replace themselves over short periods of time and do not diminish. As defined by the Energy Policy Act of 2005, renewable energy is electric energy generated from solar, wind, biomass, landfill gas, ocean (including tidal, wave, current, and thermal), geothermal, municipal solid waste, or new hydroelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric project.

DRP provides Detroit with renewable energy. Our energy-from-waste facility processes municipal solid waste into refuse-derived fuel that, when combusted, creates steam that generates electricity and heats and cools Detroit buildings.

According to the U.S. Energy Information Administration, renewable energy accounted for 13.2 percent of electricity produced in the U.S. in 2012.

(Sources: EPA, http://www.epa.gov/greenpower/gpmarket/; EIA, http://www.eia.gov/electricity/monthly/epm_table_grapher.cfm?t=epmt_1_1; US DOE, http://www1.eere.energy.gov/femp/pdfs/re_programoverview.pdf.)

Energy from Waste

In-Depth

The energy-from-waste industry utilizes two primary approaches to prepare waste fuel for conversion to energy. "Mass Burn" features minimal waste preparation while the other, successfully implemented at Detroit Renewable Power since 1991, is called "Refuse Derived Fuel," or RDF.

Creating RDF from the incoming MSW allows the facility to recover more pre-combustion recyclable metals and prepare a fuel that is higher in energy value. Unwanted and non-processable waste items such as household appliances, tires, etc., are removed prior to preparation, which allows a more homogenous fuel (RDF) to be created. This fuel can be better managed and fed to the combustion boilers. Any residual metals, either ferrous or non-ferrous, are then easily recovered for recycling from the ash residue stream prior to disposal.

Terms Defined

highlighted in this issue of "Greenlight":

Efficient adj. – performing or functioning in the best possible manner with the least waste of time and effort.

Cost-effective adj. – producing optimum results for the expenditure.

After weighing and screening waste delivered to DRP, the trash is deposited in a fully enclosed receiving area. Trained workers use loaders to remove and process separately oversized and other unacceptable material. Continuous belt conveyors feed the rest through massive primary shredders that reduce its particle size. Industrial-sized magnets then extract ferrous metal for recycling. A secondary shredder ensures a consistently sized fuel that is fed into DRP's high-temperature furnaces. After combustion, the ferrous and non-ferrous metals are removed from the ash for recycling.

Sounds complicated, but it's not—our RDF process keeps clean energy output high, emissions low, and recycling always at the highest priority.

Up-Close

Reporting on project sustainability, an analysis DRE undertook this spring, is a global trend. According to a recent International Solid Waste Association (ISWA) publication, a new sustainability report for a proposed EFW project in Novi Sad, Serbia, suggests the technology would be more expensive than landfilling—currently the only waste disposal option in the country. The report also indicates that EFW would require financial assistance but, eventually, would yield local environmental and economic benefits, boosting the sustainability profile of the country (which, today, relies on coal-fired power plants to produce 50 percent of its electricity). •

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High Points Milestones.

In mid-June DRP completed the two-week rebuild of the third and final MSW processing line. This work, costing $570,000, completes the overhaul of the three MSW processing lines that began in the summer of 2012 with the overhaul of the 100 line; the 300 line was overhauled in December of 2012.

Rebuilding the three processing lines was an essential commitment in the two-year Operating Plan of DRP, costing approximately $1.7 million. As a result of these major overhauls, the reliability of the MSW process lines has been significantly improved. The lines will be able to operate and produce renewable fuel with less downtime and reduced back-up; higher availability will allow prompt processing and faster turnover of the incoming MSW, resulting in fewer odors. Previously, the MSW processing was hampered by equipment breakdowns. •

Safety Spotlight

Confined Space Rescue Training Helps Ensure Peer Safety

In May, DRP held a Confined Space Rescue Training class, in which employees learned how to handle emergencies in-house and act as first responders. Employees often work in boilers, vessels, and pits. With this training, they can help ensure the safety of their peers and, if an emergency occurs, prevent a situation from worsening while waiting for city ambulance support to arrive—which may take hours. DRP employees preparing to be part of this facility rescue team will require 24 hours of initial training, as well as a refresher that includes a mock rescue every year thereafter.

DRP employees completed Confined Space Rescue Training in May.