

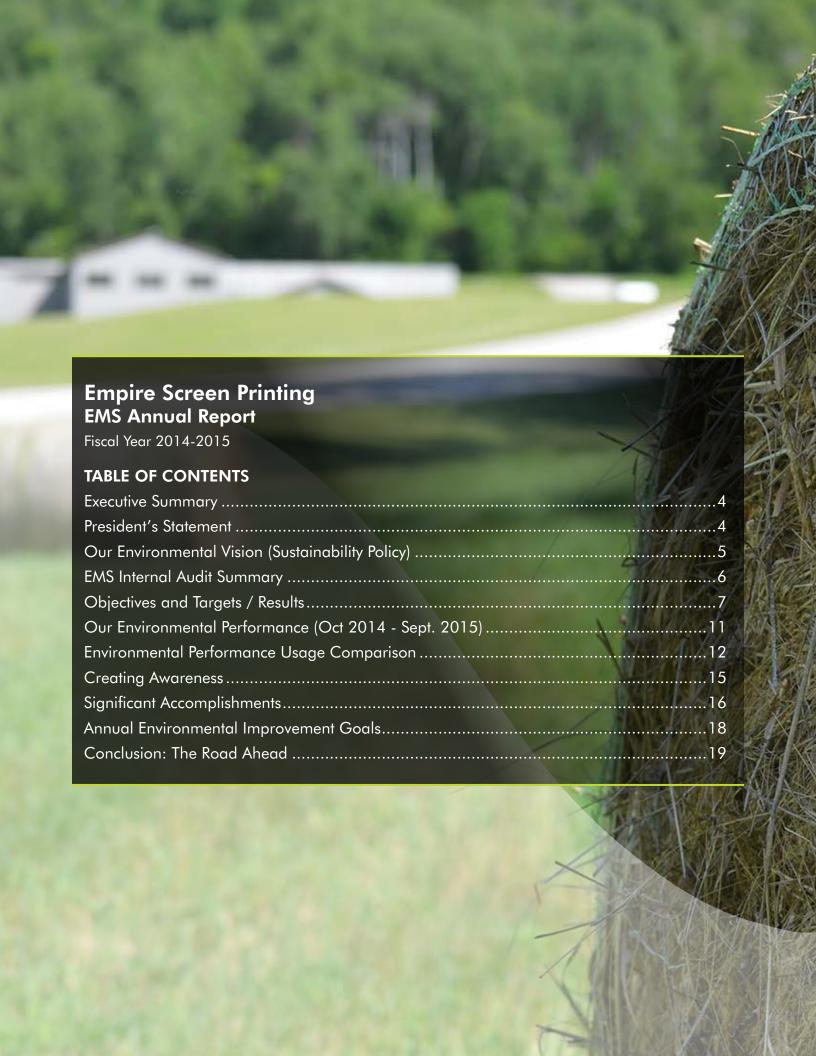
2014-2015 EMS ANNUAL REPORT

Continually Improving Environmental Performance at Empire









executive summary

Empire's home is nestled between the beautiful bluffs of the Mississippi River valley. Our landscape provides a constant reminder of our responsibility to our environment. We believe that it is our duty as an organization to implement sustainable business practices to preserve this beauty and our natural resources for future generations.

Since 1960, Empire Screen Printing has never settled for "satisfactory." With our quality craftsmanship, futuristic technology, and our care for the environment and others, we go above and beyond for our clients.

This annual report highlights our achievements from 2014-2015 and our goals and objectives for the 2015-2016 year.

president's statement

At Empire, our focus is to continuously look for ways to improve our process through sustainable business practices. We have incorporated this into our vision and we challenge ourselves to make decisions based on the health and safety of our employees, the quality of our product and the impact it has on our environment.

We have made efforts to reduce our impact on natural resources with sustainable print methods. One of our proudest achievements has been the development of our UV LED ink curing technology. Along with our partners, we have successfully implemented this technology, which greatly reduces our energy consumption and provides an environmentally friendly manufacturing process for screen printing. The success of this production process benefits us, but we're just a small entity within the industry that is typically hard on the environment. Our goal is to share our achievements and our successes to the printing industry in hopes that others will adopt this production method. The combined efforts of many can significantly reduce our environmental consumption as a whole.

John Freismuth, President

our environmental vision

Empire's Focus is providing our customers with products and services that produce sustainable results and business practices. Through our relentless pursuit of customer satisfaction we will grow Empire's customer base and strengthen our company. We will strive to improve our process by listening to our customers, collaborating with our business partners and developing our people through education and training. Our employees will be empowered to continually make improvements to the process, their work environment and themselves. We will develop production methods that implement sustainable environmental, health and safety (EHS) practices into all aspects of

WELCOME TO

our operations.

We *Commit* to being compliant with all applicable EHS and labor regulations (Federal and State). We will continue to implement programs and procedures in accordance with these requirements.

We *Pledge* to look for new opportunities and innovations that will help enhance and improve our sustainability program beyond regulatory compliance. We will strive to incorporate activities and procedures that will reduce our impact on the environment as well as improving the quality of health and wellness of the employees. We will measure our progress through regular audits and annual reviews.

Empire will *Implement* procedures to target prevention of activities, services or products that may cause harm to human health, safety,

or the environment. These procedures will be designed to affect

Empire and/or the surrounding community.





EMS audit report

An internal EMS Audit was performed by Steve Johnson (QA Manager at Empire) on 06/06/2015. There were only minor nonconformances regarding the need to improve organization of records, procedures and training records. NCR's were not initiated for these items, but recommendations were given.

By creating a centralized location for all company documentation (see Objective #5 results on page 10), we have already begun the process of resolving the issues indicated above. All supervisors will be trained within the next year regarding the proper procedure and implementation of organizing and creating any/all necessary documentation.

According to the audit report, everyone was very helpful and they want to move forward in the EMS to improve the process and make positive changes that affect Empire Screen Printing's environmental aspects and impacts. The full audit report is available upon request.



Landfill waste 382.63 tons

objectives & Targets • 2014-2015

OBJECTIVE #1

Continue with current recyclable program and our long-term reduction goal of 50% [landfill waste], with an incremental reduction goal of 10% per year.

In our efforts to continue with our recycling program, we separated our objective into three categories; research, education and implementation. We wanted to **research** new methods and materials that could be recycled, **educate** Empire employees on recycling procedures and **implement** recycling as part of our policy.

In the beginning of the year, a new person was assigned to collect and record the monthly recyclable amounts. Because the previous recorder did a lot of the separating of materials himself without informing the employees, we discovered that employee training was lacking. This in turn caused a dip in our percentages. Unfortunately we were unable to meet our annual 10% reduction goal. Our landfill waste was approximately the same, with the percentages in recycled material decreasing and the waste to energy increasing. Our long-term reduction goal of 50% is currently still at approximately 27%.

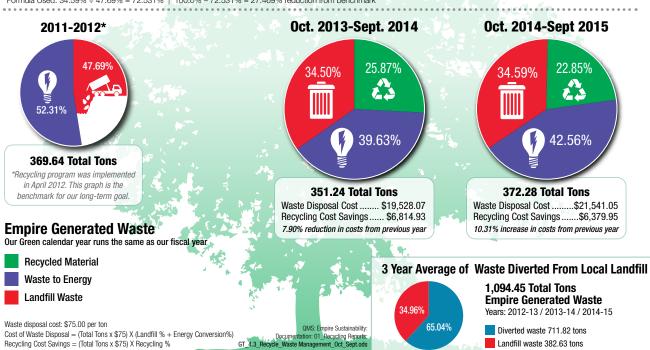
To remedy this, we knew we had to increase our efforts. We were able to add items to our recycling spreadsheet that weren't previously part of our program (scrap metal, aluminum material and cans, wooden palettes & cardboard). Four more recycling bins were added in our main recycling center. We are also researching with various waste companies regarding current materials that haven't been recyclable in the past, as well as new material alternatives.

The next steps involved company-wide educating and training. Educational posters were placed by every recyclable bin. A letter was sent to every employee regarding new recycling procedures being implemented within each departments' 5S program. A new standardized training program (see objective #4) will also make recycling procedures part of the initial hiring process.

A Kaizen was also held in our Large Value Stream department, which resulted in creating color-coded recyclable stickers. These stickers are placed in the folders of production jobs, and immediately alert employees that materials for a particular job are to be recycled. This gets everyone actively involved throughout the entire production.

*Formula Used: 34.59% ÷ 34.50% = 100.261% | 100.0% - 100.261% = .261% annual increase in landfill waste

Recycling Cost Savings = (Total Tons x \$75) X Recycling %



objectives & targets • 2014-2015

OBJECTIVE #2

Continue to implement sustainable print methods



Objective #2 was separated into two categories:

ADD SUSTAINABLE PRINT METHODS TO THE COMPANY

Initially, we planned on building a 6-color 25x38 press that uses LED technology, but due to production needs, we purchased a used large-format printer instead. Even though this printer doesn't use LED technology, it was necessary in order to meet customer demand.

We did begin the building and installation of a small-format 12x14 3-color LED press, which is slated for completion in December 2015.

MAINTAIN AND MODIFY CURRENT PRINT METHODS

Three of our (carousel) presses have regentative blowers that are used to hold the parts down on the presses. These blowers causes a large amount of heat (energy consumption) and noise pollution. The blowers for our 38x50 & 25x38 presses were put in the attic of the building (2 total). Our 40x61 press has

2 blowers; one is running all the time (and has been placed in the attic), with the second blower used only if needed. This was completed ahead of schedule.

This has successfully reduced the noise pollution from 84 decibels to 80 decibels, greatly increasing communication and employee health.

In regards to energy consumption, the 40x61 press previously used 7.24 Kilowatts per hour with 2 blowers running constantly. With the modification, it now uses 3.62 Kilowatts, with a savings of \$1,484/year.

An additional adjustment was made as an

indirect result of the work done on the blowers. Two water pumps (used for cooling tables) were replaced. The new pumps are 2.50 H.P. and are used at half speed with VFD's (variable frequency drives), which saves 1.1 kWh (Kilowatt hours). This not only helps with the noise reduction, but will also save the company approximately \$440/year.

we Just can't stop!

In our quest to improve our current print methods and satisfy our growing production needs, we were able to add more to this objective then previously expected.

Due to an increase in production needs, we expanded our printer capabilities in March 2015: We brought an older 1-color press out of retirement and equipped it with LED curing technology (no energy consumption or savings information available). We've also replaced two large format digital printers with a Mimaki Flatbed Inkjet printer (JFX500-2131). This printer does not need ventilation and uses UV LED technology which reduces power consumption (no energy consumption or savings information available)

objectives & Targets • 2014-2015

OBJECTIVE #3

Update/replace equipment as needed for better efficiency &/or per legal and other requirements.

A 5-year plan was implemented in 2009 to changeover T12 fluorescent fixtures to T8's. The new fixtures use 30% less energy to operate and are 30% brighter in comparison to the old lights. This means we can get the same amount of light with significantly fewer fixtures at a much lower operating cost.

After further discussion with management, it was determined that this objective and its timeframe would apply to the lighting units in the manufacturing areas only. This was completed in April 2015. The lighting units that are still outstanding are in sections of the company that are only in use 8-9 hours a day; these will be replaced when time and manpower allows, and is not part of the original objective.

Additional improvements were added to this objective:

The heater in the Flexo department, original to the building (mid 70's) was leaking. This was not energy efficient. By replacing this unit, we will be saving approximately \$800/year. This has also reduced the cooling from 25 tons to 10 tons, and reduced the heating from 510,000 BTU's /hr to only 230 BTU's/hr. The heating energy rating has gone from 75% up to 95.4% and the SEER (Seasonal Energy Efficiency Ratio) has gone up from 8 to 16.

In order to improve our safety environment, we replaced the Flexo Optisol wash unit with a dishwashing detergent water-based unit which eliminated the harsh solvents being used.

OBJECTIVE #4

Implement EMS training for all supervisors



Two action steps were created for this objective:

- 1. <u>Distribute the EMS Manual and set up training classes for all supervisors. Training sessions will address all elements of the EMS and how supervisors need to implement it within their departmental training.</u> In an effort to reduce waste, the EMS Manual has been stored in a centralized location on Empire's network. Supervisors and employees have been informed of this location. The EMS has also been discussed to all supervisors and employees during our quarterly company meetings. Training sessions were conducted as needed, based on the results of our internal audit.
- 2. Add the EMS to the company training manual & orientation program for new employees.

 A new, company-wide orientation program was established in May 2015. Sustainability and Empire's EMS is now part of that training program.

Meanwhile, in addition to all the steps taken for recycling education, we have also added sustainability signs to equipment using LED technology. This gives supervisors another tool for training newer employees of our sustainability efforts as well as improving communication.

objectives & Targets • 2014-2015

OBJECTIVE #5

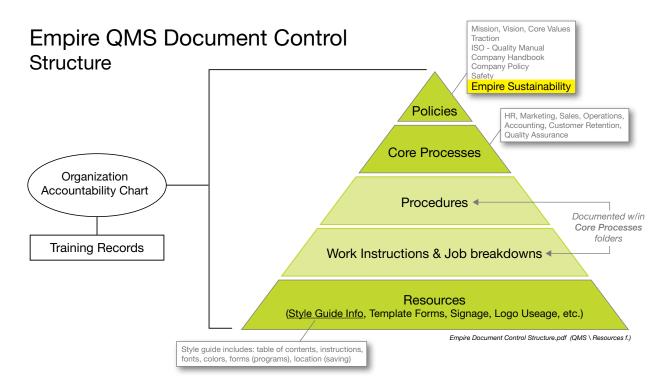
Create a centralized location for all environmental documentation

Our company creates documents on a regular basis, sometimes daily. At times, they have been created in a casual manner and then stored on someone's hard drive. They are also passed around in printed or handwritten form, on post-it notes or attached to e-mails, and end up being discarded or even deleted when they no longer seem relevant to the issues of the day. This type of disorganization could cause a process or procedure to be done incorrectly.

It was imperative for us to create a centralized location for all document storage pertaining to environmental performance, as well as company policies, processes and procedures. The purpose was to ensure that everyone use the correct and most current information, which increases efficiency and consistency.

For almost a year we worked on establishing this framework, implementing the Quality Management System (QMS). Empire's QMS is a collection of business practices focused on achieving quality policies and objectives to meet customer requirements. We use this information to hire, orient, train, produce our product and build the culture of our company. A complete style guide was created to help train employees on how to use this new system. Within that system, we established our Empire Sustainability location as shown in the diagram below. Not only does this area include our annual reports and EMS, but all documentation related to sustainability here at Empire.

In May of 2015, the QMS was approved by management and key personnel were trained to locate, update and save documentation for our EMS. All electronic environmental documentation was moved to the new drive location, with hard copies being scanned and saved as time permits.





our environmental performance

Performance for the Fiscal Year: 10/2014 - 09/2015

Note: from October 2014 to July 2015, the plant employees worked an average of 7 days/week (with 12 hour weekend shifts), vs. 5 business days/week (24 hour shifts)

Empire Screen Printing is located in Onalaska, Wisconsin on a spacious 140.58 acre property. The commercial area covers 12.37 acres with a large 150,000 square foot facility, employing 275 full-time and 20 part-time people.

Total sales	
Money saved because of material or process improvements	
Profit of Multiple between highest paid and lowest paid employee	
Total purchases	
Total in-state purchases (approximate)	
% of purchases made from companies participating in Green fiel	IIIIOITIIaliOII NOL Avallable
energy	
Total electricity used	4,060,680 kWh
Increase from previous year	1%
Total natural gas used	
Renewable energy	N/A
water	
Total water used: Empire has 2 water wells – we are not regulated by the city	Information Not Available
Water recycled/reused	
Regulated pollutants discharged	N/A
nin	
The last and the second of the	45 047 15 - /
Total air emissions from 01/2013-01/2014*	
Ozone-depleting substances (amount added for fiscal year)	
Reduction from previous year	
Greenhouse gas emissions	
waste	
Hazardous waste disposal (still bottoms)	
Reduction from previous year	
Non-hazardous waste disposal (Ink)	
Material recycled/reused	
Material sent for energy conversion	
Total amount diverted from landfill	
transportation	
Hybrid vehicles	1
Gas vehicles (includes 1 tractor for mowing)	
Diesel tractor used for mowing and snow removal	

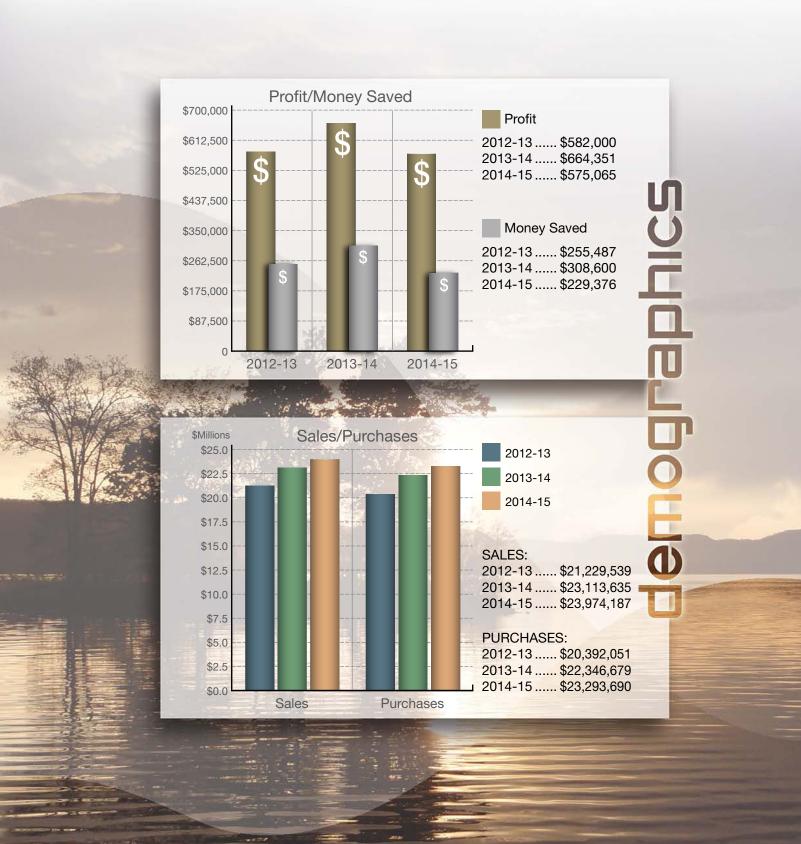
^{*}Air Emissions are recorded annually. No information available until Dec. 2015

^{**}Vehicle expense includes Gas, Oil, Tires, & Misc. Maintenance (not itemized)



environmental performance usage comparison summary

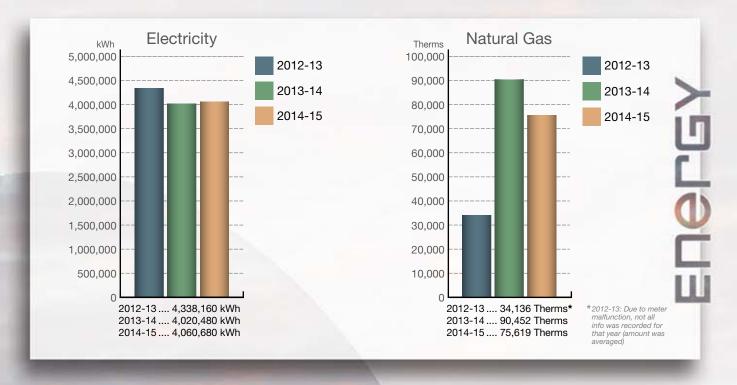
Note: from October 2014 to July 2015, the plant employees worked an average of 7 days/week (with 12 hour weekend shifts), vs. 5 business days/week (24 hour shifts)

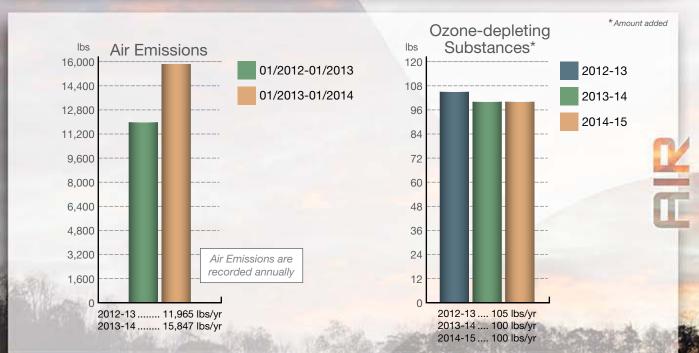




environmental performance usage comparison summary

Note: from October 2014 to July 2015, the plant employees worked an average of 7 days/week (with 12 hour weekend shifts), vs. 5 business days/week (24 hour shifts)

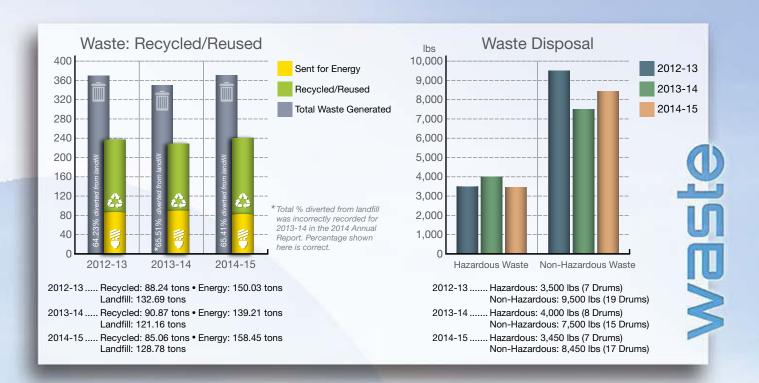






environmental performance usage comparison summary

Note: from October 2014 to July 2015, the plant employees worked an average of 7 days/week (with 12 hour weekend shifts), vs. 5 business days/week (24 hour shifts)





and the same

creating awareness

COMMUNICATION

Communication is the key to success. At Empire, we believe in this approach both internally and externally.

Internal Communication:

Our goal is to implement internal communication at all levels of the company.

For new employees, we have established an orientation program that not only trains them, but also introduces them to our philosophy, vision, core values and sustainability program. At department levels, Kaizen training is established to help increase efficiency as well as EMS knowledge and implementation. At a company-wide level, John Freismuth (President of Empire) continues to hold quarterly meetings with all employees, sharing long-term goals and improvements needed that will benefit both the company and the environment.

External Communication:

Externally, we are focused on sharing our accomplishments with our customers, suppliers and community. We do this through information posted on our website www.empirescreen.com/green_commitment.html and recognition from our industry peers such as: SGIA (Specialty Graphic Imaging Association), The Sustainability Institute, Wisconsin Manufacturer of the Year and GPI (National Association of Graphic and Product Identification Manufacturers)

2014-2015 Empire EMS Annual Report

John Freismuth talking

to Empire employees

John Freismuth is currently GPI's president and a member of their Board of Directors. This position has allowed him to raise awareness about the benefits of LED technology. Currently four printing companies have started using LED technology in screen printing.

We're excited about promoting sustainable business practices with others. When a group is moving towards the same goals, we can collectively reduce our carbon footprint and preserve the Earth's natural resources for future generations.

SUSTAINABILITY INSTITUTE: MPOWER PROGRAM

In March, 2015, Empire was invited to join a pilot program developed under the *Sustainability Institute* (housed at Western Technical College, La Crosse, Wisconsin). The **MPower Champion** program was developed by *Sustain Dane* in Madison, Wisconsin. It has been thriving for several years and is now hoping to expand to state and national levels. The program offers monthly sustainability training, development and resources for businesses. Using the MPower program, the *Sustainability Institute* works with each organization or company to establish 5 sustainability projects for the year-long program. They provide resources and guidance, along with tools necessary to track and measure the results. This is a great benefit to Empire: it gives us additional resources to further our sustainability effort, and also allows us to provide insight and help to other companies who may be moving towards sustainability.

STAKEHOLDERS MEETINGS

As part of Green Tier I level of compliance Empire must organize and preside over annual stakeholder meetings. The meetings allow for an opportunity to be held accountable to the tenants of Empire's sustainability policy and program. Both internal and external stakeholders are invited to these meetings.

Internal Stakeholders:

Jim Brush	. Owner	John Freismuth	President
Jim Schwinefus	.Vice-President	Doug Billings	VP Marketing
Lee Vieth	Plant Manager	John Johnson	Operations Coordinator
Randy Hoff	.Plant Engineer		
Cua an Camanaittea	Januitan Cablasasan Anni Dattia	Cathy Duttall Kaith Caal	In Value Laff Cainals Amanda Hantham

Green CommitteeJennifer Schloesser, Amy Bettis, Cathy Buttell, Keith Cook, Jay Yehle, Jeff Geirok, Amanda Henthorne, Ray Wurzel

External Stakeholders:

Tom Thompson	Gundersen Health Systems Sustainability Coordinator
Randy Nederlo	Deputy Director of La Crosse County Hazardous Waste
Gabe Nugent	D&M Recycling



significant accomplishments

From national printing competitions to safety records, we strive to do our best with all our projects and practices.

GREEN COMMITTEE & EMS

A Green Committee was established in April 2012. In 2014, Empire successfully established an Environmental Management system (EMS), which was part of our Green Tier 1 certification. We have since realized that training and raising awareness of the EMS is not only challenging, but an ongoing process both to existing and new employees. After much research and analyzing over the last fiscal year, Empire implemented a new orientation process in August 2015 that will reflect Empire's culture and give employees this training and awareness from



day one. The orientation will include our sustainability policy, EMS, recycle program, safety and so much more. Getting people off on the right path is the key to retaining employees and sustaining a healthy work environment.

SAFETY RECORD

At Empire, we are very proud of our Safety Record. Since the establishment of the Safety Committee in 2001, we have gone above and beyond our efforts to have a safe environment for all employees. Some major accomplishments have been:

May 2007...... 365 days (1 year)

May 2008...... 365 days (1 year) & counting

November 2014...... 765 days (2.1 years)

Currently our safety record (as of 09/30/15) is at 229 Days.

SGIA SUSTAINABILITY AWARD

In March 2015, Empire was once again recognized by SGIA for its sustainability efforts. This is the second time that Empire has received this accomplishment.

As a recipient of this award, SGIA also wrote a case study about Empire and how we promote sustainable

solutions. The article highlights our certification for Green Tier 1 and our implementation of our EMS and how we have adopted sustainable business practices.

Date of the hard copy journal publication is to be determined. Online case study can be viewed at:

https://www.sgia.org/sgia/case-study/empire-screen-printing-promotes-sustainable-solutions



significant accomplishments (continued)



WISCONSIN MANUFACTURER OF THE YEAR NOMINEE

The Wisconsin Manufacturer of the Year award program honors businesses for their commitment to excellence, their employees, and the state. Each year, a strong field of nominees demonstrate they are dedicated to building a better Wisconsin. **Empire has been nominated for this award two years in a row.**

There are only nine awards to be distributed. Four of the the awards are based on overall performance plus five special awards that recognize:

- » Workforce Development
- » Investing Locally, Growing Globally Award
- » Innovation Excellence Award
- » Investing in the Future Award
- » Employee Engagement & Commitment Award

Although we have yet to win an award, it is still an honor to be included in the field of nominees.



<u>environmental improvement goals</u>

During our Management Review meeting held on 06/22/15, we established our objectives and targets for the upcoming year 2015-2016 year.

OBJECTIVE #1: Continue with current recyclable program and our long-term reduction goal of 50% landfill waste. We will set an annual reduction goal of 5%, to reach our long-term goal of 50% landfill reduction. This percentage is based on previous years' results and future recycling information.

We will continue to train our employees through posters, sessions, and a possible a garbage/recycling audit as a visual tool. We will also continue our researching efforts with D&M and Hilltopper (as well as other recycling companies) regarding other options for improving our recycling.

OBJECTIVE #2: Continue to implement sustainable print methods.

We will research and implement the following:

- » Build a roll-to-roll screen printing press using LED technology (no completion date design phase only).
- » Convert a 6-color UV Conquest press to a 12-color LED carousel press (18-month completion date). This is one of our MPower projects in Objective #3. This will give us double capacity, along with an annual energy savings of 85.23% (a reduction of approximately 514,500 kW to 76,000 kW per year) and a cost savings of \$28,000 per year*.
- » Build a 12x14 3-color press using LED Technology. This will provide a 95% savings in energy consumption (a reduction of approximately 232,780 kW to 10,447 kW per year) and a savings of \$28,000 per year*. Completion date is October 2015.

 *savings are based on a new press using traditional UV curing print methods

OBJECTIVE #3: EMS document control

Empire's EMS audit findings indicated that we were lacking in documentation. To be compliant with our EMS, we will be creating standard documents, using our QMS system to store and create environmental processes, procedures and training records. Completion of this project is slated for the end of September, 2016.

OBJECTIVE #4: Complete projects for MPower

As an MPower 2014 Champion Sustainability Institute pilot company, we will be implementing 5 or more MPower Projects at Empire. These projects will focus on a variety of areas, such as energy efficiency, employee engagement, easy wins, and longer term projects. Project Plans are due by August 2015, with the projects completed (or ready for future implementation) by December 2015. Due to complexity or type of project, individual completion dates may vary.

MPower Projects:

1. Compressor Heat Recovery

This project will focus on whether heat expelled from the building's compressor can be vented into other parts of the plant.

2. Marketing Sustainability

We will create a marketing kit, highlighting our sustainability equipment, processes and achievements.

3. Capturing the Voice of the Employee

A sustainability survey will be conducted at Empire. This will help us measure what the employees consider important sustainability issues.

4. Garden & Landscaping

More naturalized spaces will be researched and implemented in an effort to reduce gas powered equipment usage and storm water run-off.

5. Conversion to a 12-color LED Carousel Press

A 6-color UV Conquest press will be converted to a 12-color LED carousel press.



conclusion: the road ahead

Moving forward, we realize the necessity of EMS training throughout all levels of the company. By concentrating in this area, we hope to create awareness and enthusiasm from all employees, which will propel us into the future with new and innovative ideas for continuing our sustainability efforts here at Empire.

We also feel a need to share our knowledge within the printing industry and our community. By participating in the MPower program and creating awareness through SGIA and GPI, we hope to enlighten others of our successes, encouraging businesses to take that first step towards environmental responsibility.

