



**WS Packaging Group, Inc. – Algoma, WI  
1102 Jefferson St.  
Algoma, WI 54201**

## **2014 Green Tier Annual Report**

WS Packaging Group, Inc. - Algoma applied for the Green Tier program on October 3, 2011 and was formally accepted into the program as a Tier 1 participant on March 23, 2012.

WS Packaging Group, Inc. – Algoma is located at 1102 Jefferson St. in Algoma, WI and currently employs approximately 400 people. WS Packaging Group, Inc. is an industry leader in printing and flexible packaging and manufactures such products as pressure sensitive labels, coupons, tags, and decals. The company has four facilities located in Wisconsin of which two are located in Algoma, one in Neenah, and one in Oak Creek. Our sustainability goal is to not only provide products that are environmentally sound throughout their lifecycles but also continually strive to become a better steward in protecting our environment while conserving energy and natural resources.

### **ENVIRONMENTAL IMPACT & WASTE REDUCTION PROGRAM**

#### **LANDFILL REDUCTION**

As part of the corporation's strategic sustainability plan, our facilities have focused on an effort to reduce the amount of waste sent to the local landfill. In working toward this goal, our Algoma facility has partnered with a local materials lifecycle management company since 2010. This company has developed a process for converting production leftovers into enviro-fuel cubes or pellets that are a clean biomass alternative energy fuel product. Thereby, the waste from one process becomes the resources for another. The cubes contain zero mercury, have low sulfur content, and are greenhouse-gas-friendly. The combustible materials are converted into the enviro-fuel cubes by blending it with other incoming waste streams, feeding it through a size reduction (cutting and shearing) process, and then extruding it through cubing mills.

The Enviro-Fuel Cubes:

- Produce between 7,000 and 12,000 BTU/lb.
- Can be used in most combustion applications that have ash handling applications
- Typically cost less than wood, coal, oil, or gas

Previously, all of our waste had gone to the local landfill. This included pressure sensitive waste matrix and trim from our production process. Now, each month we send about 80-90% of our waste to be made into Fuel Pellets.

**Note:**

WS Packaging Group, Inc. along with other manufacturing facilities was notified in December of 2014 that in early 2015, Greenwood was “temporarily” stopping taking any more “matrix” material until further notice. We are on a week to week notification with them.

That decision was based on their business needs. However, this will cause a dramatic rise in our waste now having to go to the landfill for disposal.

**GREEN CERTIFICATION**

WS Packaging Group has earned the Label Initiative for the Environment (L.I.F.E.) certification at its Jefferson Street plant in Algoma, Wis., from the Tag and Label Manufacturers Institute (TLMI). The L.I.F.E. program is an audited sustainability certification process tailored specifically to the narrow-web printing and converting industry and is comparable to ISO 14001 certification requirements. The L.I.F.E. certification establishes operation metrics and process improvements that enable printing companies to determine cost-effective ways to reduce their environmental impact and share this commitment with their customers. Having this third-party L.I.F.E. certification confirms to our customers that we uphold the highest sustainability standards in the industry and can provide documentation to meet their chain-of-custody requirements. The Algoma facility was the first WS Packaging location to achieve the L.I.F.E. certification, through extensive documentation and a two-day audit. WSPG has since had 3 other facilities obtain the L.I.F.E. certification. WS Packaging – Algoma in January, 2013 has been audited and recertified for the L.I.F.E. Certification.

Algoma was recertified into TLMI in June of 2014.

Listed below are other sustainability efforts that have been implemented or improved upon in 2014.

**ELIMINATING MATERIAL WASTE****WebFlex™ Online Service:**

We offer artwork uploads and transfer, product inventory management, reporting, and shipment tracking through our patented WebFlex™ online service, available to our customers 24/7. Our WebFlex system, in conjunction with our corporate-wide computer system, has further increased our efforts towards a paperless workflow process with electronic quoting, order placement, order acknowledgement, and invoicing.

**Lean Manufacturing:**

Our purchasing procedures now require all raw material suppliers with direct material shipments to eliminate the material roll plastic wrap, which equates to just over one pound of plastic per pallet. Instead, the material rolls are secured to the pallet with a double-band material strap and edge guide system. Currently this plastic wrap savings involves over thirty percent of our material purchases.

Our facility has made a huge capital investments in butt-splicers to reduce labor and paper waste by “joining” roll ends to complete the maximum label quantity per roll. This has resulted in a reduction of up to 1.48 million feet of paper waste per press per year.

Through our many Kaizen efforts, Algoma is continually improving their “LGFG” (Last Good to First Good) setup times on press. By continually striving to lower this standard, we shorten

setup time and reduce wasted material in the process. Average LGFG time is approximately 72 minutes over all. We started at approximately 150 minutes overall. That is a 52% reduction in press setup time and continuing.

## **INNOVATION FOR OUR CUSTOMERS**

### **MultiVision® Label Line:**

WS Packaging Group supports the efforts of brand owners to improve their long-term push toward sustainability by offering cost-effective packaging solutions. For our customers, we offer our own patented MultiVision® product line of extended text labels, providing additional label space through multi-layer extended text constructions. A significant advantage of the MultiVision label is its ability to eliminate the use of cartons, folded instruction sheets, and their associated costs, by having all the required consumer information right on the bottle or tube.

### **Linerless:**

In 2012, WS Packaging's R&D department has developed a line of labels that are linerless, thus eliminating the liner waste disposal and expense for our customers. For the past two years, WS Packaging has been working jointly with organizations in North America and Europe to further develop linerless labels and the application technology. For decades, the pressure sensitive industry required silicon-coated backing paper to run and dispense labels to consumer products. Linerless technology eliminates the need for a silicon backing paper and relies on unique and specially designed application technology to bridge the gap. Without the silicon backing paper, WS Packaging is able to eliminate a waste stream, reduce waste transportation costs, and increase a client's equipment production time without sacrificing the package integrity.

### **Shipping:**

As part of our packaging reduction program, we offer our customers a reusable corrugated box system, whereby customers send us their boxes that will be used for their final product shipment to retail, and we use those same boxes to send their labels to their plants. For one of our customers that ship products to a very large retailer, this reusable box program saved them over seven tons of corrugated in one year. We also developed a reusable pallet system or product-stacking configuration, whereby corrugated boxes are eliminated entirely and product is placed directly on the shipping pallet with corner reinforcement, core plugs, and limited shrink-film for protection.

### **Materials:**

One of the key strategies in a "green" process is package design, since it is the point where we can prevent waste, optimize our use of resources, select safer materials, and plan for the recyclability or recoverability of our packaging. We can source and print on certified recycled materials or alternative materials from renewable resources. Exciting new developments are taking place all the time in this area, enabling us to recommend alternatives as our suppliers develop and bring them to the marketplace. We can also provide the documentation on sustainable raw materials to meet our customers' "chain of custody" requirements, ensuring our material suppliers are certified through the Sustainable Forestry Initiative (SFI) and Forest Stewardship Council (FSC) for responsible forest management.

## **EMPLOYEE EDUCATION AND AWARENESS**

### **Facility Teams and Audits:**

Although WS Packaging has a corporate sustainable committee dedicated to analyzing its current "green" position and environment-related activities, each facility is required to have its

own committee members to manage all local activity. Each facility maintains a matrix of measurement criteria such as clean production techniques, energy use, recycling, and management practices, and then shares “best practices” across the company as part of our continual improvement and standardization. We are using this data and related projects to record and measure facility activities and progress.

### **Energy Reduction:**

Our energy conservation program has included such facility improvements as adding dimmer switches and motion sensors for lighting in offices and production areas, facility electrical upgrades, purchasing new, more efficient equipment, making building/equipment improvements in heating and cooling, fixing compressor lines to eliminate air leaks, and scheduling more frequent equipment cleaning, while focusing on preventative maintenance.

WS Packaging Group is committed to sustainability investments by designing, manufacturing, and delivering products, using the most efficient materials and methods, ensuring everyone’s health and safety, while minimizing our consequential energy use and the environmental impact from all of our business efforts.

### **2014 Projects**

1. Increase in amount of VOC’s emitted. Increased in 2014 by 5.6% due to increase in film business using more solvent based inks.
2. Increased Nitrogen usage by 57.5%. This increase was due to an additional installation of a new Nitrogen Tank that was initially filled with 68,287lbs of Nitrogen in Nov-2014. We will re-assess our usage during 2015.
3. Continue program of recycling flexo plates.
  - a. 2013-Averaging between 800 and 1000 lbs. per month that are recycled.
  - b. Previously these plates went into the landfill
4. Increased the amount of waste recycled into fuel pellets by 18.8% over 2013, of landfill waste.
5. Perfected Linerless style of label and have customers purchasing them.
  - a. Received the Business Friend of the Environment Award for Environmental Innovation.
  - b. Received the APICs Fox Valley Chapter Sustainability Company of the Year in 2012 for this effort.
  - c. 2014 – Approximately 1.1% of our label sales were attributed to linerless product.
6. Decreased the amount of waste that is now recycled to 77.2%. (Was 64% in 2011.) 2014 was a struggle due to personnel changes and retirements.

Again, this will greatly vary in 2015 because of Greenwood temporarily ceasing acceptance of more material.

7. Installed one P7-Mark Andy Press utilizing UV LED Inks and UV LED Lighting. Much more energy efficient.
8. Investigated Exchanging fluorescent lighting for UV-LED lighting on presses with existing fluorescent UV lights. At this time, we find this change over as being cost prohibitive on older presses.
  - a. Although UV-LED lighting is more energy efficient and has a 20 year life span, we note the exceptions below;
    - i. UV-LED lighting uses a specialized ink at a higher cost

### **2015 Planned Initiatives**

1. Pursue proposal for cutting energy usage by 7.15% per year.
2. Reschedule Air Leak detection study throughout the facility and correct all air leaks that are found. Scheduled for 2015.
3. One roof-top Air Conditioning unit replaced in 2014.
4. Continue to identify vendors to recycle shrink film and unsupported film.
5. Continue to identify vendors to recycle/reuse sludge from Waste Water Treatment and plastic 1 gallon jugs and plastic 5 gallon pails.
6. As technology increases and pricing decreases, we will further investigate the option of converting over UV-Fluorescent lighting to UV-LED lighting on our older presses. It may become a "cost effective" option in the future.
7. Installation of two new P7-Mark Andy presses that utilize UV LED Inks and UV LED Lights. Much more energy efficient. One will actually replace and older Comco press.

**WISCONSIN DNR GREEN TIER  
SUSTAINABILITY METRICS**

Period Covered: FY-2014

Company Name:	WS Packaging Group, Inc.		
Facility Name:	Algoma / Jefferson Street		
Address:	1102 Jefferson Street		
City, State, Zip:	Algoma, WI 54201		
Environmental Coordinator:	AJ Bonnell (EH&S Manager)		
Coordinator Phone:	Work: (920) 866-6307	CELL: (920) 321-4001	
Coordinator E-Mail:	<a href="mailto:abonnell@wspackaging.com">abonnell@wspackaging.com</a>		

Metric	Not Collected/ Not Available	Quantity	Units	Period - if not Calendar Year
<b>DEMOGRAPHICS</b>				
Sales		\$88,519,840.82	\$	Jul 13/ Jun 14
Money saved because of material or process improvements		\$500,000.00	\$	Jul 13/ Jun 14
Profit or Loss		2.0%	%	Jul 13/ Jun 14
Employees	Approx.	400	Each	Jul 13/ Jun 14
Multiple between highest paid and lowest paid employee			%	
Alternative Transportation Support		N/A	\$ or ?	
Total Purchases	Direct Materials	\$ 40,586,080.00	\$	Jul 13/ Jun 14
In-State Purchases	31%	\$12,581,684.00	\$	Jul 13/ Jun 14
% of Purchases Made from Companies that participate in Green Tier or Green Masters:			%	
<b>LAND</b>				
Total Land		5	Acres	Jul 13/ Jun 14
Paved/Covered Land		2	Acres or sq ft	Jul 13/ Jun 14
<b>ENERGY</b>				
Electricity	Calendar Yr	9,995,450	kWh	Jan 14/ Dec 14
		4.4%	% Decrease	Jan 14/ Dec 14
Natural Gas	Calendar Yr	9,425,700,000	BTU	Jan 14/ Dec 14
		19%	% increase	Jan 14/ Dec 14
Renewable Energy (generated on-site )		0%	% of total use	
Renewable Energy (as a % of utility electricity mix)		0%	%	
<b>WATER</b>				
Total Water Used	Calendar Yr 4- Meters	2,233,700	gallons/year	Jan 14/ Dec 14
		29.9%	% increase	Jan 14/ Dec 14
Source - private well		0%	% of total use	
Source - public system		100%	% of total use	Jan 14/ Dec 14
Water Recycled/ Reused	Pre-treated before discharge Avg 9,500g per week	494,000	gallons/year	Jan 14/ Dec 14
		0%	% reduction	Jan 14/ Dec 14
Regulated Pollutants Discharged (BOD, TSS, Metals)		N/A	lbs/ year	
		N/A	% reduction	
<b>AIR</b>				
Total Air Emissions	Air Emissions Inventory Summary Report	11.13	Tons/ year	Jan 14/ Dec 14
		13.10%	% reduction	Jan 14/ Dec 14
Ozone-Depleting Substances	Air Emissions Inventory Summary Report	63	lbs/ year	Jan 14/ Dec 14
		28.4%	% reduction	Jan 14/ Dec 14
Greenhouse Gas Emissions		N/A	lbs/ year	
		N/A	% reduction	
<b>WASTE</b>				
Hazardous Waste Disposal	Refiled as a LQG for 2012, 2013 & 2014	49,081	lbs/ year	Jan 14/ Dec 14
		50.2%	% Increase	Jan 14/ Dec 14
Universal Waste Disposal		N/A	lbs/ year	
		N/A	% reduction	
Non-Hazardous Waste Disposal		481.2	lbs/ year	Jan 14/ Dec 14
		N/A	% reduction	
Material Recycled/ Reused		3133.8	Tons/ year	Jan 14/ Dec 14
		-17.2%	% Decrease from 2013	Jan 14/ Dec 14
Recycled/ Reused Content		1.60%	% of product	Jan 14/ Dec 14
<b>TRANSPORTATION</b>				
Hybrid Vehicles		N/A	Each	
Gasoline Used	@2.50g Avg	13,136	Gallons	Jul 13/ Jun 14
Diesel Used - vehicles		N/A	Gallons	
Diesel Used - Generators		N/A	Gallons	
Alternative Fueled vehicles (CNG, LNG, Fuel Cell, Electric)		N/A	#	

**ADDITIONAL METRICS**

Please list all other designations/certifications (for example: LEED, Green Globes, Green Masters, Energy Star, ISO 14001):	TLMI Cert.			Jun-14