

FAREVA®

Passion for action



The Long (and Winding) Road to ZeroWaste

VEEP Workshop

August 22, 2017

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Who is Fareva Richmond?



1970 AH Robins Warehouse built
1980s AH Robins Manufacturing Plant,
bought by American Home Products
2000s AHP changes name to Wyeth ,
Pfizer bought Wyeth
2011 Pfizer sells facility to Fareva
11 Countries, 35 sites, 12 R&D centers

Contract Manufacturer
500 Full-time employees
Seasonal Temporary Workforce
745,000 ft²
300 acres
300M units annually
700+ SKUs, 250+ formulas

Growing Product Lines

- **Historical Products – OTC**
 - Liquids, Solids, Creams, Gels, Lip Treatment
- **New Products – OTC, Rx and Cosmetic**
 - Aerosols, Hair Treatment
 - Many new Customers



Certifications, Awards, Partners

Certifications



VPP - 2008



VEEP - 2010

Awards



GEEA-2013

Industrial Waste/Pretreatment Award
Silver 2014 Gold 2015 & 2016

Partners



Keep Henrico Beautiful



Gold Member

What is the ZeroWaste Initiative?

Recycle at least 95% of all waste

- Site-Wide Program since 2007
 - ✓ Grew out of Pollution Prevention Program from the 1980s
 - ✓ Formalized on Site EHS Policy

- All Employees Involved
 - ✓ Office personnel
 - ✓ Manufacturing and Packaging employees
 - ✓ Chemists
 - ✓ Warehouse Operators
 - ✓ Maintenance Crew

- Became a VEEP Goal in 2010
 - Progress reported to VADEQ via VEEP Report annually
 - Reported to corporate and customers via Sustainability Surveys

ZeroWaste Through the Years

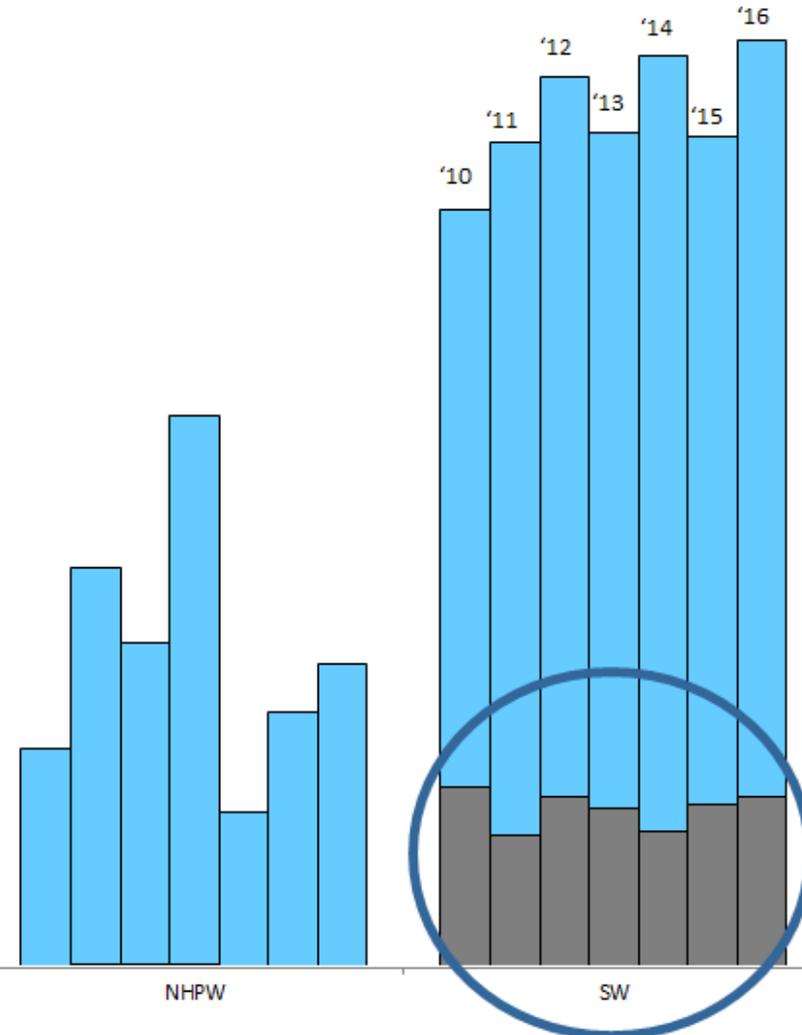
Zero Waste Data

- 78% Recycled in 2007
- 79% Recycled in 2008
- 82% Recycled in 2009
- 81% Recycled in 2010
- 89% Recycled in 2011
- 86% Recycled in 2012
- 88% Recycled in 2013
- 87% Recycled in 2014
- 85% Recycled in 2015
- 86% Recycled in 2016

Fareva Recycling 2010-2016

■ Disposed/Trash ■ Recycled

Waste Type		2010	2011	2012	2013	2014	2015	2016
MW	Lbs	6.2K	5.5K	1.2K	1.5K	1.2K	1.5K	1.2K
	%	0%	0%	0%	0%	0%	0%	0%
HW	Lbs	57K	52K	41K	36K	47K	54K	68K
	%	76.3%	76.5%	74.3%	72.2%	68.9%	86.9%	99.9%
NHPW	Lbs	1.2M	2.2M	1.8M	3.1M	0.8M	1.4M	1.6M
	%	99.5%	99.1%	99.1%	99.4%	99.8%	99.8%	99.9%
SW	Lbs	4.2M	4.6M	4.9M	4.6M	5.0M	4.6M	5.1M
	%	76.2%	83.9%	80.8%	81.0%	85.0%	80.4%	81.6%



ZeroWaste Streams 2016



Recycling Through the Years

• 1980s-2000

- W2E for non-haz products
- Wooden Pallets
- Baled corrugated sold
- Several failed attempts on clean components



• 2000-2006

- Drum Crushing
- Roll-Off Boxes for wood and metal
- White paper
- Part Time Contractor On Site



• 2007-Today

- Clean plastic components & straps
- Full Time Contractor(s) on site to Assist
- Loose Corrugated
- Blue Boys/Office Material
- Aluminum Foil Rolls & Clips
- ZeroLandfill Program
- Two full time Contractors



Satisfy the Accountants & Fund your Program

- **Some recyclables make you money**

- Baled corrugated material (\$150/ton)
- Used pallets (\$1,000+/truck load)
- Clean Plastics
- Stretch Wrap
- Plastics

Use this money to fund the parts of your program that cost you money.

- **Some cost you money**

- Blue Boys
- Monthly Trailer Rentals
- Roll-Off Rentals and pull fees
- Labor to manage millions of pounds of waste

- **On Average**

- Our recycle contractor sends us a check for \$5K-\$10K every month.

Challenges We Constantly Face

- **From the Beginning**

- Access & understand generation
- Buy-in from Site Leaders
- Staffing
- Cooperation from generators
- Compliance

- **Today's Challenges**

- Keep up with arrival of new products & equipment. Site is growing quickly!
- Staff turnover
- Compliance

- **Flawless Execution of current system gets us to 90%**
- **How do we get to 95%?**
 - Challenging recyclables
 - Clean out of offices (broken furniture, binders, etc.)
 - Maintenance debris
 - Construction debris
 - Food waste
- **Does it make financial sense to recycle?**

ZeroWaste 2.0

- **New (Old??) Approach**

- **Q:** “Why do we spend so much on waste?”
- **A:** “Why do we GENERATE so much waste?”
- We must attack waste from a new perspective
- It is no longer good enough to “recycle waste,” we must prevent the waste from ever being generated!
- **Pollution Prevention** (It’s the 1980s again!)

- **WasteMin Initiative**

- 2 years ago, **WasteMin Initiative** was born.
- Weekly interdisciplinary meeting
- In first year
 - saved \$375K
 - prevented 110,000 pounds of waste from being generated.
- Optimization of Process, Continuous Improvement
- Process Capability studies of equipment, Lean Manufacturing
- SAP Data-Driven Process

just an
Example

WasteMin Success

Bottle Line Reject Conveyor

Before (jan-june)

- 147,980 bottles wasted = \$9,036
- 2,349 bottles wasted/batch, **\$141/batch**
- **3.7% bottle waste**

After (july-dec)

- 57,849 bottles wasted = \$3,477
- 1,315 bottles wasted/batch, **\$79/batch**
- **1.4% bottle waste**



The Problem

Bottle packaging line created waste bottles due to having too many or too few liquigels in a bottle. Operators sent Liquigels from the bottle back onto the line to be packaged again and the bottle was wasted.



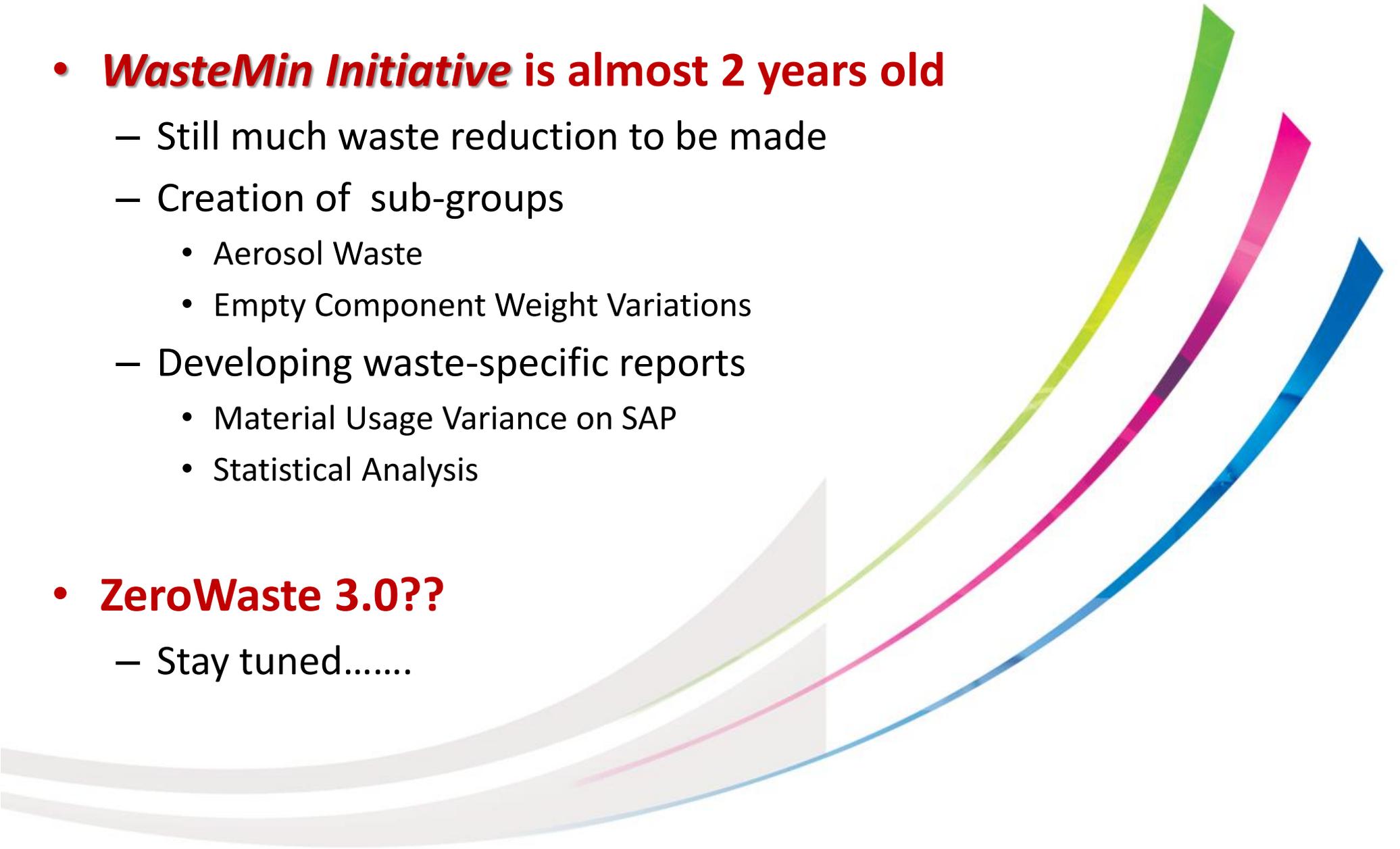
The Solution

A Reject Conveyor was installed. Bottles with too many or too few liquigels are now rejected onto the new conveyor. Operators weigh the bottle and either add or remove product so that the count is correct.

A New Attitude

- **WasteMin Initiative** practices have been accepted throughout the site.
- **'Lessons Learned'** are integrated into Design & Engineering of equipment/processes.
 - Reject conveyors
- Site's successes have been recognized by corporate and shared with other Fareva sites around the globe.

Going Forward

- **WasteMin Initiative is almost 2 years old**
 - Still much waste reduction to be made
 - Creation of sub-groups
 - Aerosol Waste
 - Empty Component Weight Variations
 - Developing waste-specific reports
 - Material Usage Variance on SAP
 - Statistical Analysis
 - **ZeroWaste 3.0??**
 - Stay tuned.....
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We Are In This Together

- ***Let's talk trash***

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