Zero Waste to Landfill

“The Ultimate Recycling Machine”

Reduce and Reuse
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1. Know your scope
2. The Basics
3. Metrics
4. Identify the Obstacle's
5. Reduction Projects
   a) Wood/Pallets
   b) Metal
6. Reuse Projects
   a) Purge Solvent
   b) Di Purge Solvent
7. Questions
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The Playing Field

Know your customers
Use of X-frames, with sort lids. Each X-frame or blue bin is properly labelled to promote segregation

Green Team: Creation of Assembly management associates to help promote recycling.
  • Select responsible team members
  • Recycling leaders in their area
  • Recycling resource for questions
  • Promote segregation in their area
  • Kill recycling myths or squash any negative recycling rumours
You have to know where you are in order to know where you want to go.

Create a base line....
Track your success!

TS-4 Waste to Landfill
kg/ F2 vehicle

- Actual kg/ F2
Identify your road blocks for reducing or reusing your waste.

Packaging changes pushed down from AG: Munich or the suppliers
- More or less content, type of content, effects
  - % returnables vs one way packaging
  - What if any can be recycled
  - Collection method
  - Available recycling markets for new content

Internal guidelines or policies
- Speak with colleagues and industry connections
- Get associate feedback from shop floor

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Reduction Project: Wood waste

• Current wood waste operations
  – Utilizing data from a 4 month sample period in 2012 the following information was extrapolated to represent an average 12 month operating cycle
  
  • BMW currently pays Nexeo $75.60 for each trailer of wood pallets removed from production-Nexeo incurs $18-$25 loss on each pull
  • Approximately 20 pallet trailers/week
  • 1000 trailers per year-BMW cost $75,600
  • 13m lbs of wood waste generated
  • Major opportunity for cost reduction and balanced relationship
Future

• Stationary wood grinding option
  – *Potential benefits, cost reduction, and sustainability*

  • Pricing remains static for BMW at $75.60 for each trailer of wood pallets removed from production - The total number of trailer pulls would be reduced by approximately 33-50%.
  • 500-650 trailers would net a cost savings for BMW from $26,460-$37,800
  • Source for ground material
    – Boiler fuel
    – Fuel cubes
    – Mulch product (will require additional investment for colorization)
    – Current vendor supply plan is well established in the local area - sources are awaiting material
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Trial

SOP
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Reduction project; metal waste

Metal recycling program

– Maximize loads for transportation efficiency.

– Increase refund through better segregation.

– Create a knowledgeable team to carry out the plan

– The starting point:
  • Initial cost: $95,000.00
  • ROI: Completed in 6 months
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Metal Recycling program

Never settle for the current process, look for optimizations.

– Utilize networking and vendors to create a better program, do not hesitate to call in an expert.

– The Next level:
  • Total cost: Refund deduction
    o $2500 a month
  • Increased revenue by 60%
  • Decreased trans by 50%
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Reuse options

1. Purge Solvent

2. Di Purge

• Several projects were kicked off to see if there was a possible way to reuse the waste streams on site.

• Explored external uses, for Beneficial reuse.
  ✓ Better option, does not reflect negatively on amount of waste generated.
  ✓ Ships out as product with a chance to generate revenue.
Thank you for your attention.