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
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You have to know where you are in order to know where you want to go.

Create a base line….
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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
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
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Future

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

  • Pricing remains static for BMW $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.

Questions?  Perguntas?  Fragen?

¿Preguntas?

问题吗?