MCR CARE Update

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Objectives

• MCR
  – Mission 2015
  – Business timeline
  – Plant timeline
  – Process
  – Supply
  – Markets
  – Commercial offerings

• Q&A
MCR Mission 100
2015

- 100% customer satisfaction – PQ and OTD
- 100% product purity – approaching virgin
- 100% safe operation with zero OTJ injuries
- 100% raw materials from pc waste streams
- 100 million PPY Renewlon™ sales
# MCR Timeline

<table>
<thead>
<tr>
<th>Timing</th>
<th>Development</th>
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<tr>
<td>Early 2007</td>
<td>Investigated technology for recycling - foam and carpet - waste to energy</td>
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<tr>
<td>April 2007</td>
<td>Attended Carpet America Recovery Effort (CARE) industry trade show and investigated technology</td>
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<td>June 2007</td>
<td>MCR was incorporated</td>
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<td>July 2007</td>
<td>MCR exclusively licensed Auburn University patent for recovering polymers from commingled materials</td>
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<td>December 2007</td>
<td>Initiated process engineering and design work</td>
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<td>June 2008</td>
<td>Funded business with private equity</td>
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<td>December 2008</td>
<td>Developed complimentary IP and pending patents</td>
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<td>January 2009</td>
<td>Completed Delaware Regulatory Advisory Service review with no major identified issues</td>
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<td>April 2009</td>
<td>Closed additional debt and awarded Renewlon™ trademark</td>
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<td>June 2009</td>
<td>Pilot plant completed with proven technology</td>
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<td>December 2009</td>
<td>Closed added bank debt and leased Delaware location</td>
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<tr>
<td>January 2010</td>
<td>Closed added debt from State of Delaware</td>
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<tr>
<td>July 2010</td>
<td>Starting first commercial manufacturing line</td>
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Three year process from concept to initial commercial plant
Raised $5 million for technology development and first manufacturing facility
MCR Organization

Ron Simonetti
CEO

John Fink
COO

TBD
CFO

TBD
CTO

TBD
CSO

Kristi Scully
Office Manager

Team Green
Production Manager - A. Grello
Technician - TBD
Technician - TBD

Team Blue
Production Manager - G. Pappas
Technician - TBD
Technician - TBD

Team Red
Production Manager - TBD
Technician - TBD
Technician - TBD

Team White
Production Manager - TBD
Technician - TBD
Technician - TBD

Plant will operate 24X7X49 with 3 scheduled weeks of shut down for maintenance and holidays
Manufacturing Plan Timeline

- December 2009 occupancy
- Late June mechanical start up
- 6,6 only
- July and August debugging and production
- Sept/Oct four shifts – 5 mm PPY rate, 7X24 operation
- Plant expansion to follow – 20+ mm PPY rate 6 and 6,6
- 2015 – 4 plants generating 100 million PPY from 250 million PPY recycled waste carpet
MCR “Refinery” Process

- Mechanical Purification Process - 80+% nylon waste carpet
- Fine Chemical Purification Process - 99+% nylon
- Nylon Pelletization Process - ready for fibers or plastics
Waste Carpet Supply Chain

• Value Proposition
  – Buying N 6,6 shaved or clawed to start
  – Transition into ground N 6,6

• Supplier Targets – Waste Carpet Processors
  – Post Consumer waste carpet – 3 B lbs
    • Raw - $0.05/ lb for 40-50% nylon per lb
    • Ground - $0.2-0.3/ lb for 80% nylon, 2 lbs
      – 250 MM PPY
    • Shaved - $0.45-0.6/ lb for 98% nylon, 4 lbs
      – 50 MM PPY
  – Post Commercial waste tiles – 1.5 B lbs
    • Raw - $0.01/ lb to cover freight/sorting, 1 lbs/15-20% FF
    • Shaved – $0.15 - 0.2/ lb
      – 3 MM PPY
    • Clawed - $0.1 - 0.15/ lb, new cat claw capacity coming on stream
    • Outlets for recaptured PVC (new backing) and nylon fiber (Renewlon™)
  – Other feed streams containing nylon
    • Waste panty hose, fish nets, air bags, films and auto carpet

Utilize shaved and clawed to start up plant
Add ground to drive profitability and increased supply
Market Strategies - Renewlon™

- **Customer Value Proposition**
  - **Price** - nylon market
    - Fibers @ $1.2++/lb
    - Resins @ $1.5++/lb
    - Post Industrial @ $1.15/lb
    - Renewlon™ @ $1.15++/lb
  - **Product** - high quality and purity - 99.5%
  - **Place** - truck distribution in super sacks
  - **Promotion** - recycled content, less natural resources
    - Oil moving up $85/barrel. Takes 5 lbs of oil to produce 1 lb of nylon

- **Customer Targets**
  - **Carpet Manufacturers** - Downstream Renewlon™ brand marketing
    - Consumer - USGBC and desire to keep waste carpet from landfill
    - Commercial - NSF/LEED certifications driving activity
  - **Fiber producers** - Direct sell design products
    - Develop initial fibers with 5% to 15% Renewlon™ loading
    - Market pull from carpet manufacturers and consumers
  - **Plastic Resin compounders** - Drivers
    - High virgin polymer costs
    - Limited and contracting supply of post industrial nylon
    - Recycled content

**Higher V costs, reduced PI supply, green building and landfill reduction driving Renewlon™ demand**
Summary

• Waste carpet and comingled streams are a huge environmental problem driving land filling
• MCR has patented nylon polymer recovery technology with potential to make a huge impact
• MCR’s Renewlon™ approaches the purity standards and mechanical properties of virgin nylon resin
• Our target customers desire Renewlon™ that will reduce the need for nylon made from oil
• Mutual goal of increasing recycled content in the production of carpet and plastic products

MCR is driving toward the finish line to complete plant and supply Renewlon™ to our customers