Liberty Tire Recycling

A Partnership with Wisconsin Council on Recycling

December, 2012
Agenda

• LTR Services - National Coverage
• LTR Product Use and Markets
• Wisconsin Scrap Tire Perspective
• Liberty suggestions for WI sustainability
• Why Action is needed
Product Use & Market Development

- Nationally, Liberty Tire Currently Provides Recycled Rubber for:
  - Rubber Modified Asphalt
  - Synthetic Turf Industry
  - Landscaping/Home Garden & Playground Markets
  - Equestrian Centers and Shooting Ranges
  - Cement Kilns, Paper/Pulp, CoGen, Boilers
  - Mat & Flooring Markets:
  - Public Service-Traffic Safety Devices
  - Civil Engineering
WHERE THE RUBBER... …MEETS THE ROAD
An idea with traction.

• Liberty Tire Recycling allows for the innovators of the industry to convert old tires into the modern version of the great American highway.

• Rubberized asphalt highways are now being constructed that ride quieter, last longer, and use significantly less paving material than traditional asphalt.

• Up to 2,000 tires are used in each lane mile of pavement. Because some applications of rubber asphalt are thinner than traditional conventional asphalt methods, less paving material is used.

• Recycled tire rubber as a polymer replacement for styrene butadiene styrene (SBS) reduces mix costs by $2 to $5 per ton.
OUT OF THE TRAFFIC... ...INTO THE TRAIN
Sustainability that’s on the right track.

- Liberty Tire Recycling’s finely powdered crumb rubber is the key ingredient in new composite crossties, the greenest solution for railroad tracks.
- Composite ties replace old creosote and toxic preservative-filled hardwood ties with a solution that
  - lasts longer, and
  - allows for heavier loads,
  - supports faster train speeds, and
  - improves safety.
- The Chicago Transit Authority projects the new ties will allow their Blue Line to bring commuters home faster than ever, increasing its current 15 mph up to 70 mph.
WHERE THE DRIVE ENDS...  ...THE ROAD TO THE
BIG GAME BEGINS
The best ground game in the industry.

- You’ll find that Liberty Tire’s green recycling technology provides versatility as the base for the infill to facilitate interchangeable synthetic turf surfaces in the new Dallas stadium. There’ll be a playing surface for the NFL, NCAA football, high school football, and for Major League Soccer.

- And underneath the green will be the sustainable idea of recycled rubber, with the stability, cushioning and leveling capabilities that will make it a perfect platform player performance and a reduced risk of injury.

- So when the Green Bay Packers rolled into Dallas for the 2011 Super Bowl, remember the winning drive may have started with a spin around the block.
WHEN YOU PARK IT...

...WE PARK IT
Recycling with Liberty Tire.

It’s a day at the park.

• Liberty Tire recycles tires into decorative landscape mulch, making it one of the best investments for the environment.

• Our technologies clean, process, and convert tires into a unique rubber mulch that is non-allergenic and harmless to plants, pets and children.

• Rubber mulch is safer than wood or stone, will not wash away during heavy rains, and will not sustain mold, fungus growth, or insect infestation. Plus, the non-toxic color guard retains its fresh look for years, saving money in the long run.
Recent customers include:

- Kohls
- Miron Construction (Neenah, WI)
- Appleton Papers (Appleton, WI)
- City of Madison
- Westinghouse Electric
- Quick Trip
- Peppersource
- Discount Tire
AS SOON AS THE RIDE IS OVER... THE FUN BEGINS
Recycling with Liberty Tire.

Ready or not, here we come.

- Liberty Tire Recycling is on call for one of the safest ways to let kids be kids.
- Recycled crumb rubber is Mom’s best friend in the kid-friendly mats and playground tiles that keep little falls fun and flexible, not hard and hurtful.
- Small rubber nuggets laid six inches thick, can protect children on playground equipment and shield them from accidental injury from as high as twelve feet.

And playground cushioning is non-allergenic, will not harbor insects, mold or mildew, and looks great for years and years.
IT TAKES YOUR OLD WINTER STUDS... 

...TO MAKE CHAMPIONS AT CHURCHILL DOWNS
• Liberty Tire Recycling supplies some of the leading equine surface makers with the recycled material that protects the finest tracks and stables in thoroughbred racing.

• From the paddock area, to the wash stalls, to the barn corridors and beyond, environmentally-friendly pavers and mats play a vital part in protecting horses and livestock across the country.

• They offer excellent shock absorption, exceptional durability, slip-resistance even when wet, and a beautiful environment that even controls bacteria and dust.
Tire Derived Fuel (TDF) is an alternate energy source produced by processing tires into fuel chips. When consumed, TDF produces more energy than coal, but with lower moisture, sulfur, nitrogen and ash as compared to most types of solid fuels making it a clean burning, environmentally friendly alternate fuel.

Currently Liberty Tire Recycling provides enough TDF to generate 100% of the electricity needed to power a city of about 150,000, equal to Dayton, Ohio.

Less expensive on a per ton basis.
Wisconsin Scrap Tire Perspective

- Annual Scrap Tire Flow
- Annual Consumption
- Market Shortfall
- Historical Timeline
- Environmental Concerns
- Market Options
- Sustainability Solutions
Annual Scrap Tire Flow

- Annual Scrap Tire Generation – Est. 6.0M PTE’s
- Collectors and Processors:
  - Liberty Tire Recycling Auburndale: 3.40M PTE’s
  - Liberty Tire Recycling Savage, MN: 1.40M PTE’s
  - Liberty Tire Recycling Chicago, IL: 0.30M PTE’s
  - Others: 0.90M PTE’s
  - Total: 6.00M PTE’s
Annual Scrap Tire Consumption

- **Put Back on the Road**  
  - 6,600 Tons

- **Tire Derived Fuel**
  - Alliant Energy, Sheboygan – 3,500 Tons
  - Alliant Energy, Cassville – 5,580 Tons
  - Thilmany Paper, Kaukauna – 7,170 Tons
  - U of W Madison – 5,000 Tons
  - Exel Energy, Ashland – 3,250 Tons

- **Mulch**
  - Playgrounds and Landscaping - 1,000 Tons

- **Total**  
  - 32,100 Tons
Current Market Shortfall

Annual Scrap tire Flow: 6,000,000 PTE’s

Annual Consumption: 2,918,200 PTE’s

Annual Market Shortfall: 3,081,800 PTE’s
Historical Timeline

- **October 1986 Somerset Tire Fire burns 10 – 20 Million tires**
- May 1988 Law passed creating Waste Tire Removal and Recovery program. $2/tire fee for vehicle registration to address stockpiles and lack of markets.
- 1990 to 1997, DNR and private industry cleaned up 16M tires from 570 various size sites. DNR provides grants for collecting, processing and end use markets. (Mostly tire derived fuel).
- 1997 legislature ended program transferred fee to a per vehicle registration into transportation fund.
- 1999 fee raised to $6/vehicle registration.
- **2000 Auburndale Recycling Center Burns 100,000 tires.**
- 2001 fee raised to $9/vehicle registration.
- **2005 Watertown Tire Fire burns 3 to 5 Million tires.**
- 2011 Fee was repealed and an existing vehicle title fee was raised by $9/vehicle and placed in the general transportation fund.
Environmental Concerns from Market Shortfall

- Landfilling as an option for scrap tire rubber is prohibited, forcing responsible processors to incur the costs to move material to out of state markets.

- Within the last 36 months, 5 processors (American, MRRP, Pop & Son’s, Forward Vision, Illinois Tire) started operations and have gone out of business leaving scrap tire inventories in the state.

- Several tire haulers pick up tires for a low fee, grade off the reuse tires and leave the remaining scrap tires for eventual cleanup.

- Legitimate processors are raising their collection prices to offset costs to out of state markets. Many municipalities are beginning to find an increase in illegally dumped tires as generators attempt to avoid this cost by illegal dumping.

- Lack of enforcement funding leads to excessive tire piles at processing plants.
Environmental Concern Cont.: American Tire - Niagara, WI
Bay Envirotire – Green Bay, WI
Bay Envirotire - Green Bay, WI
Major Environmental Concern

• Historically in 1986 and in 2005, when excessive tire piles gather at processing facilities or illegal dumps; major environmental cleanups follow with severe economic and environmental results!
Market Options for WI Scrap Tires

- Purchase Rubber mulch for all public playgrounds and to landscape state owned properties.

- Work with the DOT and Asphalt contractors to standardize and develop a specification that uses rubber modified asphalt in Wisconsin roads.

- Encourage Wisconsin facilities to use tire derived fuel, a renewable energy for their fuel needs.

- Consider tire material for drainage material for new landfill and road construction projects.

- Tire derived material should be considered for various civil engineering projects as a replacement for aggregate.
Sustainability Solutions

- Create End Use Markets within Wisconsin
- Enforcement of Irresponsible Recyclers is imperative.
- Use the $9 LP Tax to Develop New Markets
- Initiate Legislative Changes to enforce and encourage market creation.
- Consider State funding to Off-Set Out-of-State Shipping.
- Work with the Council of Recycling that the Somerset and Watertown History is not repeated.
IT’S OUR COMMITMENT