Owens-Illinois and Glass Recycling

May 10, 2016
O-I: World’s leading maker of glass packaging

- Fortune 500 company; 2015 sales of $6.2 billion
- Founded in 1903
- 27,000 employees
- Unique position as leader in glass packaging, combining global footprint with focus on innovation and brand-building capabilities
- Proud to make the most sustainable packaging on earth
Preferred partner for well-known global brands
Product portfolio covering a range of categories across the globe

- Glass packaging for beer, wine, spirits, food, specialties, non-alcoholic beverages, and pharmaceuticals
- Tableware, including stemware
- 10,000+ products
- 14 color groups representing 65 unique shades of glass
- 600+ new product solutions introduced each year
Our global presence

80 plants in 23 countries

GLOBAL AND N.A. HQ
Perrysburg, Ohio

EUROPE HQ
Lausanne, Switzerland

LATIN AMERICA HQ
Miami, Florida, U.S.

ASIA PACIFIC HQ
Melbourne, Australia
Presence in the Commonwealth

Toano – 1980

Customers: MillerCoors, AB InBev, Yuengling, Dogfish Head Brewery. Virginia Craft Brewers.

Cullet Use: 59,731 tons of recycled glass in 2015 or 163 tons a day.

Amber glass (brown color).

Cullet sources: North Carolina, New Jersey, Massachusetts, New York and Connecticut

Danville – 1978

Customers: MillerCoors

Cullet Use: 44,914 tons of recycled glass in 2015 or 123 tons a day.

Amber glass (brown color).

Perspectives on glass recycling
Single Stream Recycling: MRF Processing Challenges

- Increased contamination of inbound supply
- As fiber decreases, glass is growing percent of recycling stream
- SS MRFs initially designed to “remove” glass, not sort it
- Glass clean up systems are expensive to maintain

Sources: 2007 Comparative Study on Public vs. Private MRFs, 2012 GAA study on Wisconsin-Area MRFs, ISRI Moore Presentation April 2015
Americans want to recycle glass

91% of consumers say that recycling is an important part of conserving natural resources.

90% say that it is important to recycle materials rather than sending them to the landfill.

95% of those who live in a community which recycles glass say glass should continue to be collected by recyclers.

91% say finding ways to avoid wasting our natural resources is important.

Glass is made from natural resources:
- sand
- soda ash
- limestone
Economic value of glass recycling

The glass industry is national with 46 glass plants and 59 recycled glass processors in 29 states.
Glass is endlessly recyclable

- 2.4 million tons of recycled glass used annually to make new bottles and jars
- 33% on average recycled glass in new glass containers
- 60% is used for new containers or insulation
Glass helps communities meet their recycling goals

Glass bottles and jars represent up to 25% of the total weight of the recycling stream.

It costs only less than .15¢ per person per pick up to recycle glass at the curb.

80% of Americans have access to single-stream recycling.

ZERO Waste recycling goals cannot be achieved without glass.
Improve Supply Chain Value & Accessibility

www.GPI.org: Connecting the dots to the glass recycling chain
Partnership With Fiberglass Industry

• Operates 36 plants in North America
• Recycled glass is a critical manufacturing input
• Similar to the glass container industry, requires properly sorted glass that meets industry specifications
• Purchased roughly 750,000 tons of recycled glass in 2015
MRF Initiatives in North Carolina

- GPI grants to two MRFs for improving glass processing and handling (Asheville and Raleigh)
- MRFs to report on changes in glass recovery efforts in one year
- 3 glass container plants in-state
Targeted Outreach & Glass MRF Spec

- Outreach to state and local recycling officials & organizations
- Establishing a “Glass MRF Spec” under consideration with ISRI (Institute of Scrap Recycling Industries)

Industry improvements in action

Better sorting & cleaning  Grants for recycling facilities  Better specifications  Connecting recyclers to markets
Glass Recycling Coalition

• Glass Industry Value Chain:
  – Diageo
  – New Belgium Brewing
  – Glass Packaging Institute
  – Heineken
  – Strategic Materials, Inc.
  – Sierra Nevada
  – Ripple Glass
  – Owens Corning Fiberglass
  – Ardagh
  – O-I
  – NAIMA (Insulation Manufacturers Association)
  – Gallo
  – Goose Island
  – Rocky Mountain Bottle Co.

• Recycling Industry:
  – The Recycling Partnership
  – Waste Management
  – Republic
  – NW&RA
Glass Recycling - Key Takeaways

- Recycled glass provides significant energy, environmental, and GHG benefits
- Consumers want to recycle glass – not see it landfilled
- Glass in the curbside bin assists municipalities and states achieve recycling and recovery goals
- GPI is working with a variety of packaging stakeholders to improve and strengthen the glass supply chain and recovery efforts