



# Sustainability Through Innovation

*The West Point  
Paper Mill*

# Smurfit-Stone

## *At a Glance*

- \$5.6 Billion 2009 Sales
- Leading producer of containerboard in the US
- Leading corrugated producer in the US
- Largest processor of recycled fiber in our industry
- One of the leading producer of 100% recycled containerboard in the US
- Recapitalized infrastructure, optimized processes

# Solving it From All Sides

## *Services & Solutions*

*Smurfit-Stone discovers opportunities to increase our customers' competitive advantage through our real world packaging expertise, global resources, and an abiding respect for the environment.*

<p><b>MILLS</b></p> <p>Supply continuity Product options</p> 	<p><b>CONTAINER PLANTS</b></p> <p>Quality products On-time delivery</p> 	<p><b>IMAGE PAC</b></p> <p>Research-based creative solutions Networked designers</p> 	
<p><b>AUTOMATED PACKAGING SYSTEMS</b></p> <p>Lower operational costs Improve productivity</p> 	<p><b>GLOBAL PACKAGING SOLUTIONS</b></p> <p>Reduce transportation costs Reduce claims and damages</p> 	<p><b>RECYCLING &amp; WASTE SOLUTIONS</b></p> <p>Reduce waste removal costs Generate revenue</p> 	
<p><b>ENTERPRISE-WIDE SUPPORT FUNCTIONS</b></p>			
<p>Structural &amp; Graphic Design Network — Increase shelf velocity</p>	<p>Customer Collaboration Center — Innovation / R&amp;D</p>	<p>Packaging Consulting Group — Optimize supply chain</p>	<p>Sustainability — Compliance</p>

## Smurfit-Stone's Sustainability Vision

We will grow our business responsibly and safely, protecting the environment, making wise use of our natural resources, and giving back to our communities.

# Sustainability

*Delivering Today - Providing for Tomorrow*

- Social and Environmental Stewardship
  - Employee Safety – S.A.F.E
  - Chicago Climate Exchange - CCX
  - Carbon Disclosure Project - CDP
- Ethical Sourcing
  - Sustainable Forestry Initiative/Forest Stewardship Council
  - 100% Recycled Packaging
- Responsible Supplier Base
  - Continuing Product Guarantee
  - Supplier Ethical Data Exchange (SEDEX)
- Consumer Perceptions and Packaging
  - Sustainable Design Process
  - Value Proposition Proposal
  - Waste Management and Recycling

## West Point Mill

### *Defining Sustainability*

- Chartered on October 21, 1918 as a part of The Chesapeake Corporation of Virginia
- 100-fold capacity expansion from 1918 to today
  - 20 to 2400 tons per day
- Operated through multiple wars and economic down turns providing critical local employment
- Expanded product mix to match market demand to remain profitable
- Applied leading industry innovations to meet environmental compliance and maintain competitiveness.



*West Point Mill 1938*

## Fiber –

### *Sourcing, Use and Re-use*

- 1927 - Waste paper and Kraft pulp used for production of “Jute” board,
- 1930 – One of first Fourdrinier board paper machines.
- 1985 – 1000 tons/day secondary fiber system start up
- 1985 - First 3-ply, 4-wire paper machine in the USA utilizes recycled fiber in middle ply
- Currently
  - Fiber Procurement System is certified to the Sustainable Forestry Initiative's Certified Fiber Sourcing standard
  - Effort underway to certify system the SFI/FSC/PEFC chain of custody standards



## Process –

### *Innovation and Optimization*

- 1972 - First 3-stage bleach plant in North America
  - Use of high consistency Oxygen bleaching stage
  - This led to the ECF bleaching in 1995
- 1974 – One of first UNOX Waste Treatment Plants
  - Black Liquor Oxidation to reduce odor and TRS
- 1985 –
  - First 3-ply, 4-wire paper machine in the United States
  - First fractionator in North America to separate fiber into “long” for liner and “short” for medium
  - Converted #1 PM to 100% recycled medium
- 1992 - E-Line evaporators and #5 Boiler
  - Low odor boiler
- 1999 – Alkaline conversion on #3 PM
  - Quality and throughput improvement



## Power –

### *Innovation, Gen And Co-generation*

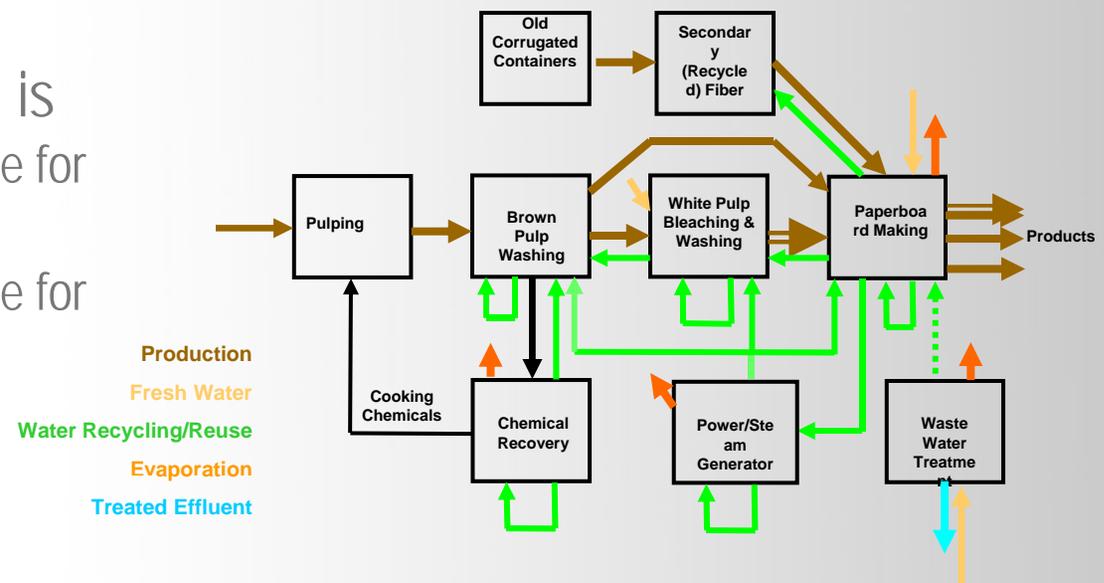
- 1922 - Installed one of the industries first wood waste boilers
- Recovery Boilers
  - 1977 No. 4 Recovery Boiler
  - 1992 No. 5 Recovery Boiler
- Power Boilers
  - 1964 No. 8 Power Boiler Combination Coal/Oil Fired -2007 state of the art wet scrubber reduced SO<sub>2</sub> by 90%
  - 1981 No. 10 Power Boiler Wood Waste Fired With Oil Assist for start-up.
- Turbine Generators
  - 100 MW capacity
  - Green steam driven, 75% from renewable fuels
- Currently
  - Mill produces all of its own steam and 90% of electrical requirements



## Water –

### *Reduction, Optimization and Re-Use*

- Requirements
  - Pulp and paper manufacturing is a water-based process
  - FDA requirements for food grade board
- Efforts and Impact
  - Extensive water reuse - 15 times during various processes
  - Committed to continuous improvement: Voluntarily reduced water use by 18% since 1993
- Current Water use per ton is
  - 68% lower than the average for U.S. bleached mill
  - 28% lower than the average for U.S. unbleached mill



## Challenges Moving Forward

- Fiber Supply
  - Land Development – continues to impact the fiber basket
  - Bio-fuel debate – incentivizing alternative use of timber
  - Cost to manage standing timber –
    - Virginia has strong forestry industry
    - Despite use of best practices increasing pressure on landowners for forest certifications
- Meeting proposed regulatory changes such as Boiler MACT
  - No single boiler in the industry meets all proposed limits
  - The AF&PA estimates compliance will cost \$5 - \$30 million per boiler





## Boiler MACT - Smurfit-Stone and West Point

- Smurfit-Stone spent \$80 million to comply with the 2004 Boiler MACT standard
  - Promulgated by EPA in 2004
  - Vacated by the courts in 2007
- 2007 West Point installed the #8 Boiler Wet Scrubber
  - \$8 Million invested
  - 90% reduction in SO<sub>2</sub>
- As a company Smurfit-Stone emerged from bankruptcy on June 30, 2010 – Programs such Boiler MACT will place additional financial burden on the industry.
- Fisher International's 2010 study concludes Boiler MACT will result in
  - 17,000 jobs lost at pulp and paper mills
  - 72,000 jobs lost in the supply chain and local communities support mills

# Thank You

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