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Adapting to the New Reality: Fluff Pulp

Press release: WASHINGTON, April 20, 2012 – According to the American Forest & Paper Association’s March 2012 Printing-Writing Paper Report, total printing-writing paper shipments decreased 11% in March compared to March 2011. Three of the four major printing-writing grades posted double-digit decreases compared to last March, and the one single-digit decrease is the largest for that grade since 2009. U.S. purchases (shipments + imports – exports) of printing-writing papers decreased 16% in March. Total printing-writing paper inventory levels increased slightly, up just one percent compared to February 2012.

News like this makes it impossible to deny that the shift to electronic media is negatively impacting the North American market for communications papers. The loss in demand is having profound implications for the U.S. paper industry, as exemplified by International Paper’s 2009 decision to close its Franklin, Virginia mill, adding 1100 people to the ranks of the unemployed and dealing a major blow to the small city’s economy.

Since then, the picture at Franklin has brightened considerably, thanks to IP’s decision to repurpose part of the mill to produce a new product; it has recently started churning out fluff pulp, a soft, white, absorbent form of pulp used in diapers, feminine hygiene products and similar applications. The converted mill will produce as much as 270,000 tons per year.

The decision was influenced by a positive market outlook for the product, as determined by two key circumstances: the rapid growth of the middle classes in China, India and other Asian countries, and the nearly unique suitability of southern U.S. softwood fiber for this application. As incomes rise in the developing countries of Asia, there is a rapidly increasing demand for paper products, including baby

care and personal hygiene products. The demand for more traditional paper products can be met by growing Asian production capacity, but fluff pulp can’t be made from the types of wood grown there. It depends for its absorbency on the kind of fiber that is typical of pine species grown in the U.S. South. These species, such as slash, loblolly and longleaf pines yield pulps having long, coarse, thick-walled fibers that confer high liquid absorption capacity.

Besides Franklin, other mills in the southeastern U.S. have found the option similarly attractive, launching projects to convert to or increase their fluff pulp production. Domtar converted its Plymouth, North Carolina, paper mill to 100% fluff pulp in 2010, allowing it to produce 445,000 metric tons and making it one of the largest fluff pulp facilities in the world. The Parsons and Whittemore mill in Perdue Hill, Alabama, now owned by Georgia Pacific converted one line to fluff pulp production.

The U.S. industry is not completely without vulnerability. At least two coarse-fibered pine species, radiata pine and loblolly pine, are grown in South America. One company, Chile’s Arauco, has already capitalized on the opportunity by starting fluff pulp production at its Alto Paraná mill in Argentina. Nevertheless, there are significant barriers to entry by South American companies as market pulp consultant Dave Hillman points out in “The World of Market Pulp” (WOMP, LLC, Appleton, WI 2005). Among them: the know-how to produce huge reels with near-perfect thickness profile, uniform moisture content and limited interfiber bonding; the challenge of entering a new market with customers who have quality requirements unlike those of paper pulp customers; and the need to institute controls internally and with intermodal shipping companies to ensure that customers will receive pulp rolls in nearly perfect condition.

The Wall Street Journal (Aug. 13, 2012) quotes consultant Rod Fisher as saying that global manufacturing capacity for fluff pulp totals 6.4 million tons, up from 4.5 million in 2007. More than 90% of global capacity is in the U.S. Given the upbeat market predictions and the continuing decline of the communications paper market, look for these numbers to increase as the industry begins to adapt to its new business environment.

CPBIS: Mission and Objectives

Editor's note: The Director of CPBIS, Georgia Tech Professor of Economics Patrick McCarthy, has recently submitted the Center's Annual Report for the year ending July 31, 2012. The following is based on the opening section of that report.

Created in 2000 under the auspices of the Alfred P. Sloan Industry Studies Program and now affiliated with the Industry Studies Association, the Center for Paper Business and Industry Studies at the Georgia Institute of Technology (GT) is one of 23 Industry Studies Program Centers. CPBIS's mission is to create and disseminate knowledge and further understanding of business, management, organizational and social issues of importance to the paper industry. It does so by simultaneously engaging key Industry organizations and academic institutions, principally through GT and its associated colleges and Centers such as the Institute of Paper Science and Technology (IPST). Administratively, CPBIS is a Center in the GT School of Economics.

CPBIS has four primary objectives: 1) conduct research on business - related issues and topics of current interest and relevance to the paper industry management; 2) engage Ph.D. and Masters students in paper industry studies; 3) provide information, data, and other knowledge of value to the paper and forest products communities; and 4) engage industry and industry stakeholders in furthering CPBIS' missions.

To achieve its purpose, CPBIS focuses on issues of importance to the paper industry business community, covering a wide array of academic specialties and resources. Key topics include trade, the economy, business and manufacturing management, commercialization of technology, regulation and regulatory policy, community interactions, benchmarking, and human resource issues.

The Center seeks to be a globally recognized, industry - valued academic center, creating knowledge and products to support pulp and paper industry

decision - makers, and supporting graduate education that will contribute to the long - term commercial success of the industry.

A basic Center objective, in accordance with the Sloan Foundation's model for Industry Studies, is to gain an improved understanding of strategically important managerial, economic, social, and organizational challenges facing the Industry. Creating an integrated set of high quality and innovative programs will help to achieve this. An equally important objective is to build and sustain ties between the Industry and the academic community in ways that address issues of interest to analysts and scholars. This will include such areas as relationships between culture and organizational effectiveness, Industry responses to the changing business environment, shifting regulatory processes, and emerging trends in information technology. Thus, the programs developed are intended to fuse practical and theoretical concerns.

AF&PA News

The American Forest and Paper Association last week released its July 2012 U.S. Kraft Paper, Paperboard and Containerboard Statistics Reports. Below are the key findings:

- Total kraft paper shipments were 138,000 tons, an increase of 3 percent compared to June 2012. Total inventory was 78,700 tons this month.
- Total boxboard production decreased by 4.1 percent compared to July 2011 and decreased 0.4 percent from last month.
- Unbleached kraft folding production decreased over the same month last year but increased compared to last month.
- Total solid bleached boxboard & liner production decreased compared to July 2011 and last month.
- The production of recycled folding decreased compared to July 2011 but increased when compared to last month.
- Containerboard production rose 2.3% over June 2012 but fell 2.2% compared to same month last year. The month-over-month average daily production decreased 1%.
- The containerboard operating rate for July 2012 lost one point over June 2012 from 96.3% to 95.3%.

Recent Industry Intelligence Inc. Headlines

[Industry Intelligence Inc.](http://www.industryintel.com) has provided market intelligence to more than 600 companies worldwide since it began as Forestweb in 1999. Industry Intelligence delivers a daily report featuring news of the paper and forest products industries. For your subscription visit: <http://www.industryintel.com>

Below is a selection of particularly relevant recent headlines, together with brief synopses.

August 14 - 20

IP to hold ribbon-cutting ceremony celebrating its new fluff pulp operation in Franklin, Virginia, on Aug. 17; U.S. Rep. Forbes recognizes 200 jobs created from reinvestment

The mill began operation at the end of June and has the capability of annually producing up to 270,000 metric tons of high quality fluff pulp.

Staples Canada begins stocking Step Forward Paper containing 80% straw from byproduct of harvested wheat crops, 20% FSC-certified wood fiber; Winnipeg-based producer Prairie Pulp & Paper says product protects forests, supports farmers

The paper is designed and produced by the entrepreneurial Winnipeg-based company Prairie Pulp & Paper Inc., which is working in partnership with Canopy, an environmental organization that is developing the North American straw paper industry.

August 7 - 13

Resolute Forest Products celebrates planting one billion trees in Ontario

Although forests can regenerate themselves through natural processes, tree planting and other techniques such as aerial seeding are an important part of a successful forest management program.

Clearwater Paper slated to operate new 70,000 tons/year PM at tissue mill in Shelby, North Carolina, by year-end 2012, has started hiring for 50 additional workers; machine to make private-label tissue products

The company manufactures consumer tissue, away-from-home tissue, parent roll tissue, machine glazed tissue, bleached paperboard and pulp at 15 manufacturing locations in the U.S. and Canada.

July 31 - August 6

Domtar should sell pulp assets when market improves, says analyst, due to pulp's volatility and below-average normalized margin potential versus paper, says paper's stable pricing would make Domtar a 'cash-generation machine'

According to the analyst, pulp accounts for only about 15% of Domtar's earnings, but is volatile and tends to be a key driver of its share price.

SP Newsprint shuts down its 540,000 tonnes/year 100% recycled-content newsprint mill in Dublin, Georgia, at the end of July; restart has not yet been determined, says company executive

SP Newsprint filed for Chapter 11 bankruptcy protection

Catalyst Paper to permanently close Snowflake recycle paper mill in northeastern Arizona and Apache Railway subsidiary as of Sept. 30, citing 'intense supply input and market pressures'

The price of the mill's primary raw material, old newsprint, has increased approximately 163% since 2009.

July 24 - 30

China's paper, paperboard production in 2011 up 13.2% year-over-year to 110.34 million tonnes; certain paper varieties to be at risk of over productivity, newsprint market declines, report finds

The complete report is available for purchase at <http://www.researchandmarkets.com/research/4scbmr/research report on>

Texas-based Kior granted Part 79 registration for its renewable cellulosic gasoline by EPA, says biofuel will be fueling cars of U.S. consumers in 2012

According to Kior's CEO, its first production facility, scheduled to begin production later this year, will yield enough fuel to meet the annual transportation needs of over 20,000 families.

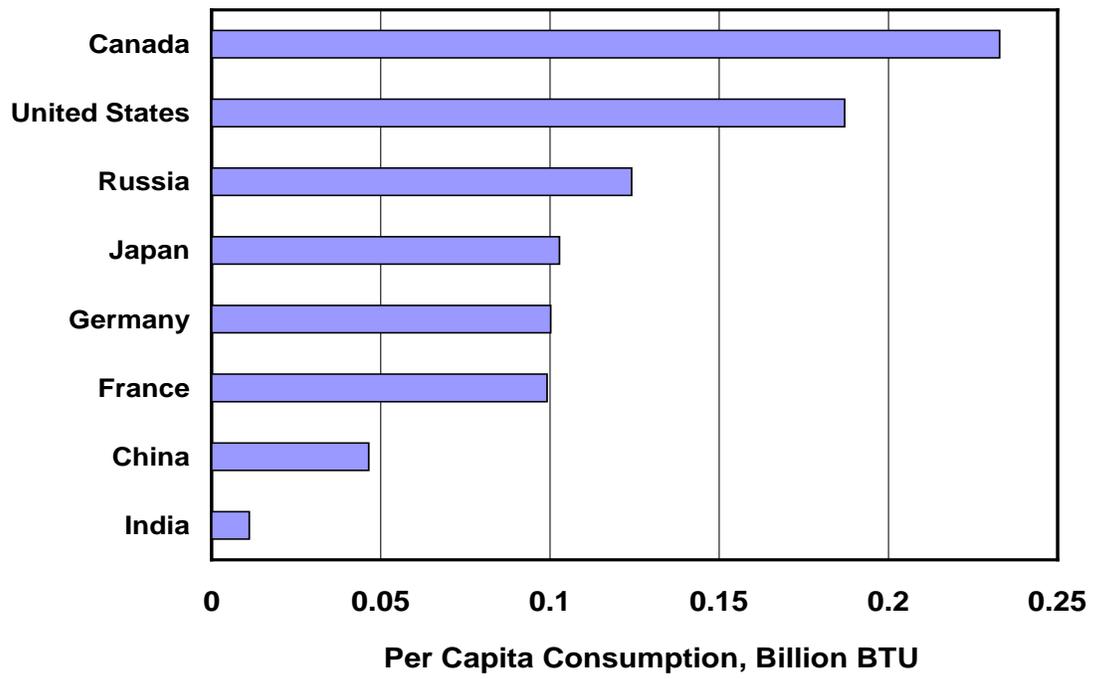
July 17 - 23

Third, unidentified but 'worthwhile' party has begun talks to buy a part of IP's mill in Franklin, Virginia, while Tak Investments, Franklin Pellets remain interested in the mill for tissue making, wood pellet production, respectively

The proposals for Tak and Franklin Pellets are in the planning stage, involving engineering work to retrofit existing equipment for other uses.

Statistics Corner: Top Per Capita Energy Consumers

Figure 1 below shows that, on average, Canadians consume more energy than Americans. The data also make it interesting to speculate on the future effects of rapid growth in the Chinese and Indian economies on total world energy consumption.■



(Sources: Consumption, oilprice.com; Population, Wikipedia)

Figure 1. Top Per Capita Energy Consuming Countries