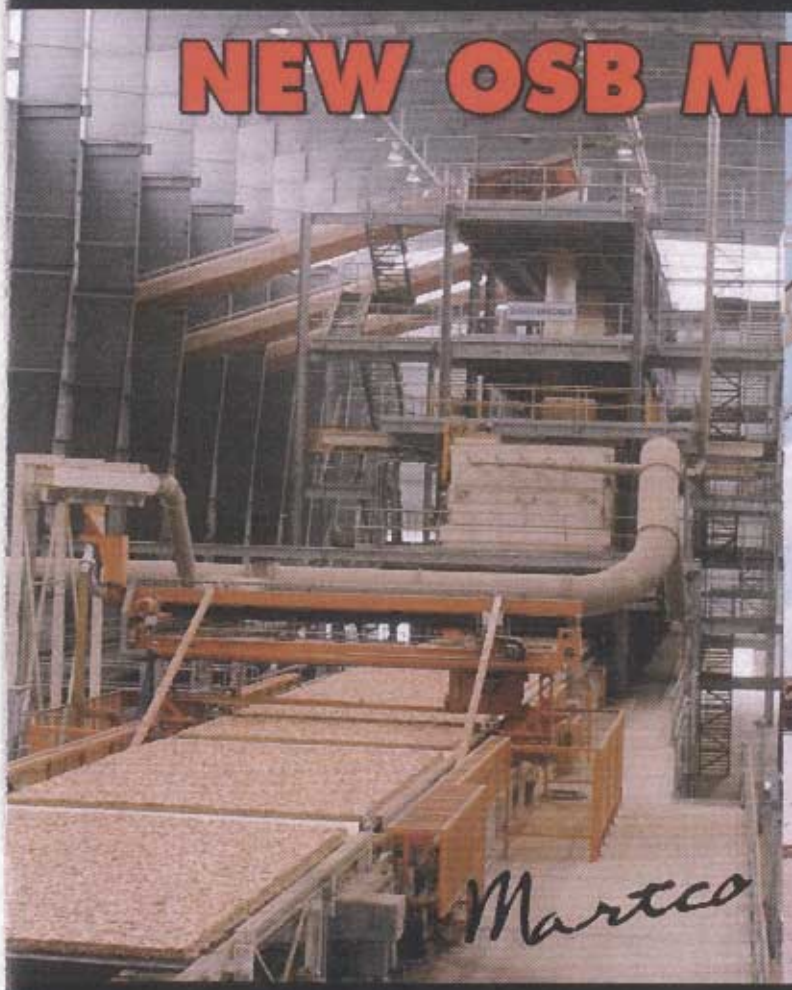
A Hatton-Brown Publication

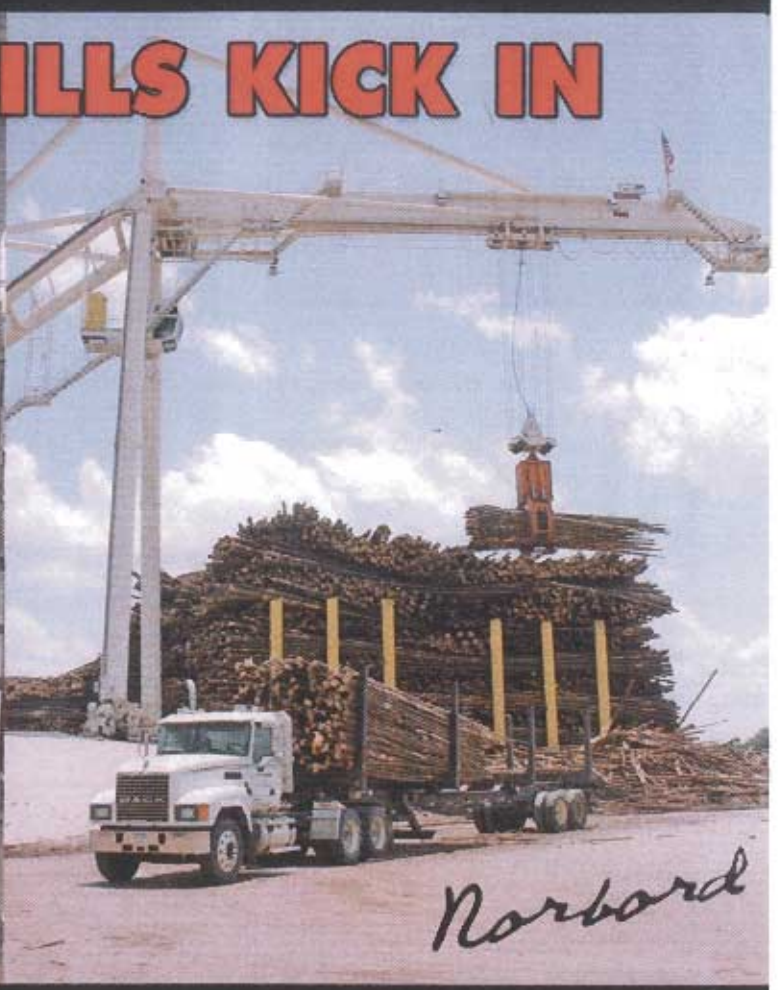
SEPTEMBER 2007 • $5

PanelWorld

VENEER • PLYWOOD • COMPOSITES • GYPSUM • LAMINATES™

NEW OSB MILLS KICK IN





ALSO IN THIS ISSUE:

- TODAY'S WORKFORCE
- TECHNOLOGY: FUSES
- PANEL WORLD CONFERENCE

LINE 2 IS OPEN FOR BUSINESS AT NORBORD'S CORDELE OSB PLANT

First rate workforce and proven technology puts mill ahead of the curve.

BY RICH DONNELL

CORDELE, GA

Norbord Georgia Inc. has its new OSB line running at near capacity, which makes the two-line plant's 1 billion SF (⅜ in. basis) output one of the largest in the world.

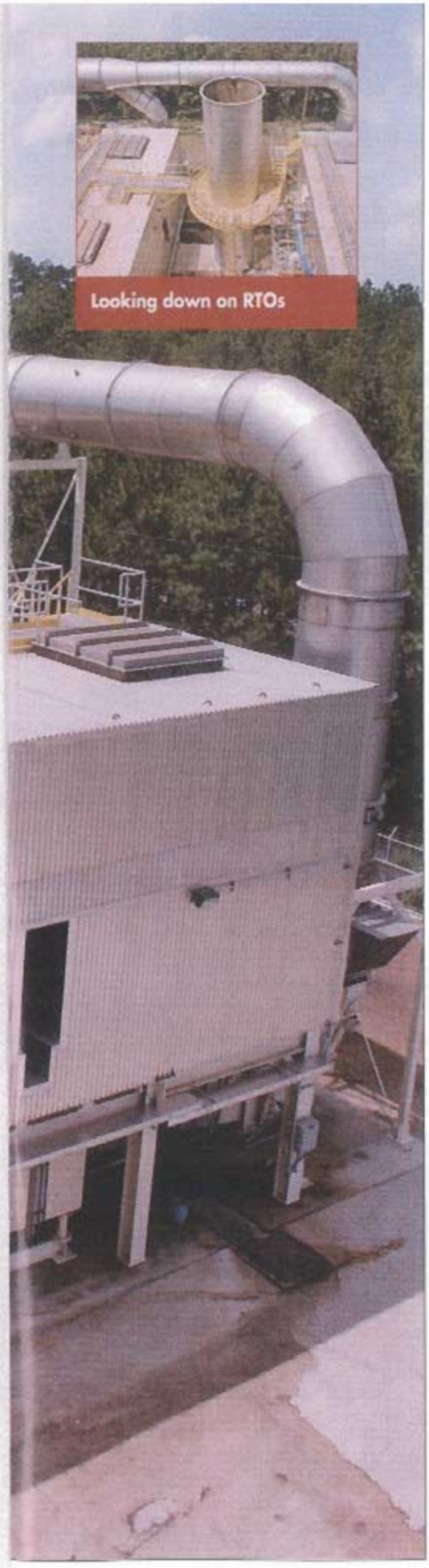
The $135 million investment added a second (totally separate) line with 550MMSF of capacity adjacent an existing line. Norbord purchased the plant from International Paper, along with two OSB plants in Texas, in 2002. IP built the plant in 1991.

The expansion here increases Norbord's annual worldwide OSB production capacity to 5 billion SF. The company operates 11 OSB plants (including six in the Southern U.S., one in Minnesota, two in Quebec, one in Scotland and one in Belgium).

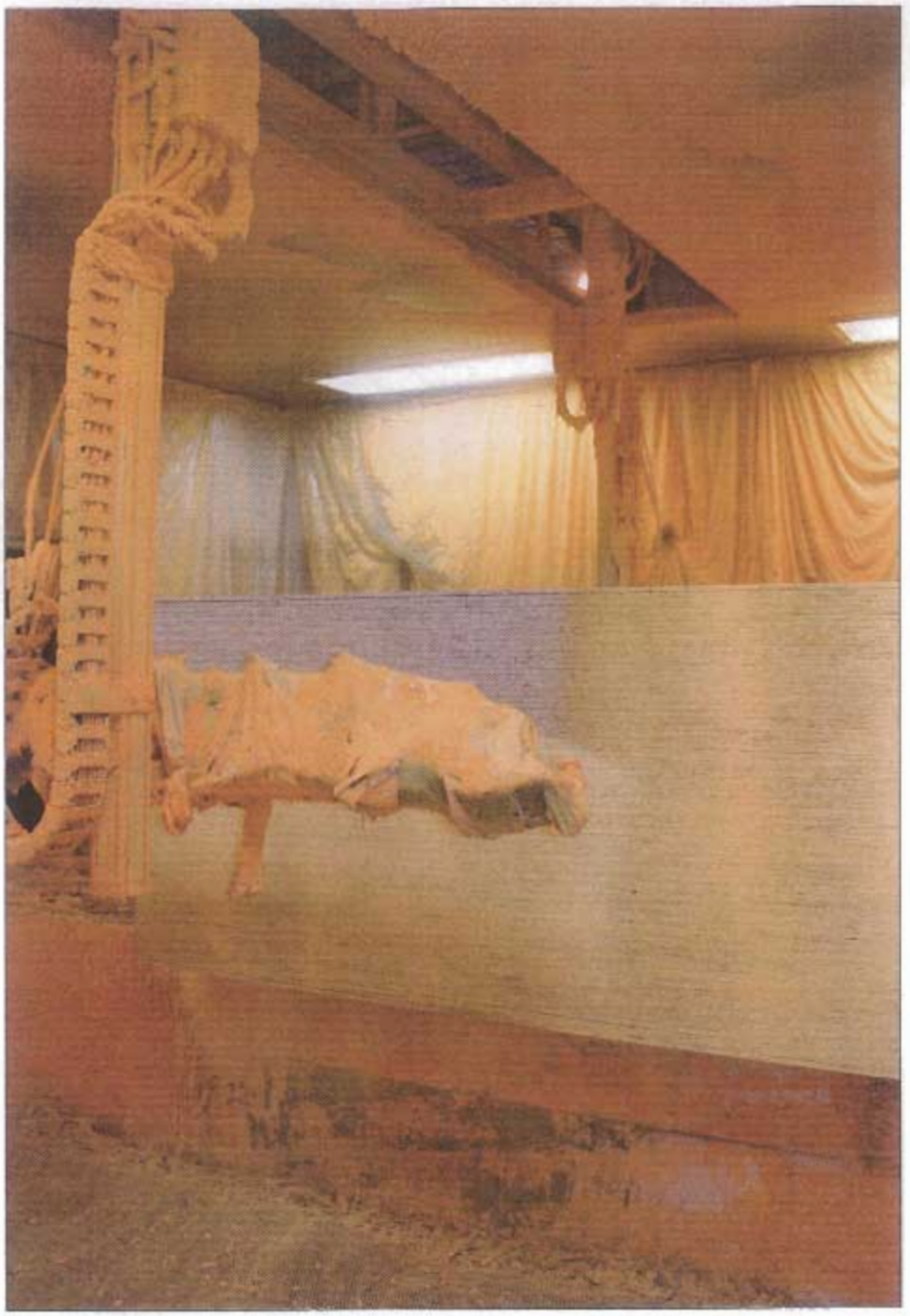
General Manager Avery Smith arrived in Cordele only weeks after Norbord bought the plant from IP. Smith had served in a similar capacity at Norbord's OSB plant in Joanna, SC, where he had overseen its greenfield startup in 2000.

Smith and his staff set about boosting production at Cordele, and did so by 25%, with a considerable amount of investment in equipment upgrade, meanwhile decreasing fiber usage and energy consumption.

Emissions control line includes United McGill wet ESP (background) and two Megtec RTOs



Looking down on RTOs



Automated Willamette Valley paint/spray booth applies Norbord gold.

When Norbord officials began talking about adding plant-size capacity somewhere, all eyes quickly fell on the monster amount of space available on site here in what was IP's siding plant that had been shut down for a number of years. The existing building, not to mention the existing water system and power capacity, and adjacent company acreage for an additional log yard, practically made it a no-brainer to add capacity here rather than go greenfield somewhere else. Cost-savings compared to a greenfield mill was estimated at $30 million.

As for the additional pulpwood fiber resource that would be required, Smith comments, "There's an abundant resource. Reforestation has received major emphasis here."

Dirt work began in July 2005 and structural work came on later that year. The first board was produced last December and it's been a steady build-up since. The commissioning/startup phase experienced only one recordable injury. In fact the plant, including the new line, was recently re-certified as an OSHA Voluntary Protection Program (VPP) Star plant.

One reason for the excellent progress has been an experienced workforce, in-

cluding supervisors brought in from other board plants and an abundance of skilled workers made available by various industry manufacturing plant closures in the area. And don't forget about the skills and knowledge already on hand at the existing line.

The new line has added 75 employees to the 130 the plant already employed. The new management group boasts an additional 85 years of experience.

Supervisory breakdown includes the general manager, three production managers (one for each line and one who works with both lines), maintenance manager, two maintenance supervisors (one for each line), an electrical supervisor for each line, eight shift supervisors (four for each line), a QC manager, shipping manager, accounting manager, procurement manager, human resource manager, safety manager and environmental coordinator.

More than 50 personnel comprise the maintenance/electrical staff. Each line always has two mechanics and one electrical person on hand per shift.

As this magazine went to press, the new line was right at capacity production. It's no secret that the OSB industry in North America has been dealing with a soft housing market, at a time when new OSB capacity is growing.

"We wanted to jump on it and be one of the first to come up," Smith says. "The idea was to go ahead while the market was down and be ready when the market turned around. It'll shake out. We're moving ahead full force. Our costs are good."

PRODUCTION

Smith emphasizes that startup has gone about as smooth as startups go, not only due to the experienced workforce, but because the new line uses proven suppliers and machinery. Norbord hasn't been afraid to test new technology waters at other plants, such as at Joanna or Tupelo, Miss., but here it's "proven technology, simple, straightforward for manufacturing commodity OSB," Smith says.

KTC Panelboard Engineering helped Norbord with the preliminary plant expansion plans including preliminary project schedule and capital cost budget. During the execution phase of the project KTC was responsible for providing complete process, mechanical, electrical and structural design of the plant.

KTC also acted as a technical liaison between Norbord and all the suppliers

Georgia-based Teaford supplied wood fiber burners and two energy systems.

Siempelkamp 16-opening press as it looked three months before startup.

Imal gauge at press outfeed makes grade determination.

and contractors. With Norbord's approval the electrical design was assigned by KTC to Cogent Industrial Technologies. In addition to the overall plant engineering, KTC designed materials handling equipment (conveyors, bins etc.) for local fabrication.

Casey Industrial served as the plant and electrical construction contractor. The project entailed the installation and wiring of more than 750 motors and almost 5,000 field devices.

Cogent was responsible for the electrical and control systems implementation of the plant, filling the gap between what was supplied and what it takes to build and maintain a state-of-the-art facility.

Cogent President Bijan Shams notes the focus was on project schedule, operability and maintainability, while delivering on budget. Cogent utilized Rockwell's system components including PLC, HMI and Intellicenter MCCs for a state-of-the-art infrastructure that facilitates a secure and fast networked process data flow between equipment and the process areas within the plant. Operational effectiveness was improved with development of uniformed graphic screens that provided equipment and operational diagnostics information.

MILL FLOW

Approximately 250 log trucks feed one of the two wood yards daily with 100% southern pine. Norbord doesn't own any timberland in the area, so the pulpwood resource is procured from private and industrial timberland owners.

While the original log yard uses rolling stock to transport raw material, the new log yard features a P&H 32 ton rotary crane. An infeed ramp to the debarking line allows for feeding with a front-end loader if the crane is down.

Material moves into two PSI 9 ft. x 60 ft. drum debarkers. The old line operates one drum debarker and two conventional ring debarkers.

As with the old line, Norbord opted for two Pallmann full length flakers on the new line, but running the bigger PZU 22-725 units with 48 knives.

The green and dry storage bins (two of each) were supplied by NorArc.

Teaford supplied the energy system, which includes two separate energy systems (walking floor wood fiber burners) that can be run independent of each other, with oil heaters on both lines. The Teaford energy units provide 125 MMBTU/hr output. The oil is for the press, and the exhaust gases off the burners are for the dryers.

West Salem supplied the fuel hog.

The two dryers are Büttner 19 ft. x 92 ft. single pass drum units. GM Smith points to the dependability and greater throughput of the drum dryers.

Gases from both dryers go to a United McGill 4 field wet ESP for particulate removal, followed by two Megtec CS900 Cleanswitch RTOs for VOCs removal. A Megtec RCO processes VOCs from the press. The emissions control system conforms to the new MACT regulations.

Kneeling, left to right, Avery Smith, general manager; Kevin Kjelgaard, purchasing manager; Keith Blanton, safety manager; Wilmer Bryant, shipping manager; Matt Staton, quality manager. Standing, left to right, Scott Keene, maintenance manager; Bob Avrett, production manager; Bobby Jones, accounting; Heath Lucy, production manager; Ronnie Sweet, environmental; David Fant, human resources manager; Kevin Nesmith, maintenance planner; Robert Jones, production manager

Control room off press line is modern and spacious.

The spark detection system and detectors on the line were provided by Flamex.

The new line incorporates two Coil 11x45 blenders. Two weigh scales, one for each blender, came from Schenck.

Liquid phenolic resin is purchased from Georgia-Pacific, as well as Dynea and Tembec. Wax comes from Dominion and Hexion.

From the blenders, flakes move to a Siempelkamp 8 ft. forming line. The mat moves through a Cassel metal detector and Imal density gauge, before heading into a 8x24 ft., 16-opening Siempelkamp press. (The original line operates a 14-opening Siempelkamp press.)

An Imal blister detector and thickness gauge is stationed after the press, which determines whether the board is "A" grade or downgrade material (the latter is used for pallets and crates, etc.). Grade and certification is stamped with a Clawson stamper.

Siempelkamp Handling Systems (SHS) supplied the first and second pass sawing type finishing line.

OSB stacks move into a fully automated Willamette Valley paint booth, followed by a Samuel strapping station.

Norbord's IT team has implemented an on-line, real-time inventory bar coding system. A vast indoor storage and rail car loading facility impressively reflects the plant's billion square feet production capacity. PW

MACT COMPLIANCE SOLUTIONS
for Engineered Wood Products

Press RCO
+ Higher Thermal Efficiency
+ Catalytic Operation
= **Low Operating Costs**

Dryer RTO
+ Plug-resistant Media Bed
+ Modular Design
= **99% Uptime**

Turnkey Projects
+ Pilot Testing
+ RTO/RCO Rebuilds
+ $1.8 Billion Parent Company
+ 50+ MEGTEC Service Technicians
+ 365,000 ft² Manufacturing Facility
= **Tested and Proven Solutions for the Long Term**

You Deserve More...

With MEGTEC, you get more than just regulatory compliance. You'll also get the process knowledge and experience that ensures your facility operates at maximum efficiency and productivity.

For specific information about emission control solutions in the engineered wood products industry, visit www.megtec.com/ew

MEGTEC

MEGTEC Systems
Industrial & Environmental Products
1-800-558-2884
www.megtec.com