The Rock River used to flow past five paper mills near Beloit, Wis., but now – thanks to dedicated employees and five generations of astute family management – only Beloit Box Board Co. still prospers on the river’s banks. Upgraded continuously since its founding in 1907, the company’s plant discharges no wastewater into the river that flows past it and has increased its production nearly 25 percent over the past 10 years.

Recycling paper into uncoated recycled boxboard since the 1920s – before then, rags and straw were used – the company has benefited over the decades from the increasing emphasis on recycling paper products. In an industry where production methods remain stable, Beloit Box Board Co. has been able to upgrade its equipment and systems to achieve increases in efficiency and production.

A new steam box installed in 2013 is removing more moisture out of a sheet of recycled fiber before it goes through the dryers, therefore saving heating energy. Upgrading to direct-drive motors for the press, dryer and calendar sections and removing the old line shaft in 2005 saved energy and increased the company’s production 25 percent.

“We were speed-limited with the old line shaft, and we were able to increase those speeds by as much as 50 percent,” President Andrew Chamberlain says. “We’ve got not quite 25 percent more production, but we’ve been steadily increasing the rate of production.”

Beloit Box Board’s sheets of uncoated recycled paperboard – ranging in caliper thickness from 0.015 inch to 0.052 – are shipped within a one-day radius to Chicago, Milwaukee, Minneapolis, Iowa, St. Louis and Michigan. They also are shipped nationwide to the East Coast and Colorado, Utah, Arizona, Georgia, Florida and California. “I would say there are less than 20 mills in the U.S. making the same grade that we do,” estimates Erik Chamberlain, sales manager and raw material fiber purchasing. The company also sells its products in Canada.

**Sustainable Sources**

Because they are 100 percent recycled, all of Beloit Box Board’s products meet the chain of custody requirements of the Sustainable Forestry Initiative. The company is also ISO 9001:2008 and ISO 14001:2004 certified.

Beloit Box Board says it is one of only two paperboard mills that is continuously recycling its wastewater internally and does not discharge it to a river, stream, lake or external treatment plant. “We have to continuously add water,” Andrew Chamberlain concedes. “There is a percent of water going out with the product. There is water going out with the dryer exhaust and evaporation, and then the rejects also have a percentage of water with them. We do have to replace all of that daily.”

The plant’s energy efficiency is improved with the use of scrap wood.

“We have a wood stove that we burn
the scrap wood in to preheat the in-
going air into the boiler to try to save
approximately 1 percent of the natu-
gral gas by preheating the combustion
air,” Superintendent David Cham-
berlain explains. “One percent over
a year’s time is a significant savings.”

**Cascade Steam**
The pressure of Beloit Box Board’s
steam is too low for cogeneration,
which would save energy. “We
do cascade our steam usage from
high-pressure to low-pressure,” An-
drew Chamberlain says. “The steam
is cascaded, which means you reuti-
lize the flash and you reutilize the
steam from a higher to a lower pres-
sure application, where you reclaim
as much heat as possible. But we’re
relatively small, and we’re dealing
with fairly low pressure.”

The average turnaround time for a
chipboard order is four weeks or 20
business days from the date of order
to the customer receiving the pa-
perboard. Most product is shipped
made-to-order by common carrier
as soon as it is produced because
Beloit Box Board’s space is limited,
since it is in its original facility.

The plant runs 24 hours daily, six
or seven days a week. “We like to stay
running because we gain our effi-
ciency running continuously,” David
Chamberlain says. “We shut down
once a week or once every two weeks
to do maintenance.”

**Company Success**
The Chamberlains attribute their
company’s success to their father’s
work ethic and the company’s em-
ployees. “The work ethic instilled in
us by our father – who just instilled
this spirit of continuous improve-
ment, so that you’re constantly striv-
ing to do better – is what keeps us
going,” Andrew Chamberlain says.
“We’re always looking to have a better
year and do a little better every year.”

The company’s employees share
that work ethic. “The experience of
our employees and the long tenures
and low turnover rate that they’ve
had have really helped the company
growth,” David Chamberlain says.
“Treating the employees as they’re
part of the company really counts,
because you receive that back in the
work that they do.”

The Chamberlains are not the
only ones that have made Beloit Box
Board a family company. “We’ve had
numerous third-generation families
working here, and it’s the experience
of those employees that have really
helped take things forward and con-
tributed to our success,” Chamber-
lain says. “They really take on any
new changes and try to make them
work successfully.”

For the future, Beloit Box Board
plans to do what it does best. “We’ll
always be a boxboard mill,” Cham-
berlain insists. “We stick to one thing,
and we try to do it as well as we can,
instead of doing multiple things.”

Erik Chamberlain attributes the
company’s success to its customers.
“We’ve had a very loyal customer
base,” he points out. “There are sev-
eral customers that we have had a
relationship with far longer than my
tenure here.”

The company sees continued effi-
ciency gains. “We will just continue
to run as effectively as we possibly
can,” Chamberlain resolves. “As
we’ve seen over the years by doing
that, currently today we’re produc-
ing approximately 75 tons a day. If we
looked back to 15 years ago, we were
producing approximately 60 tons a
day. So we keep gaining productivity
with the improvements and gaining
efficiency and keeping the quality
where it’s at.”

---

Published by Phoenix Media Corporation Tel: 312.676.1101 Fax: 312.676.1280
On behalf of Beloit Box Board Co. © 2014 Phoenix Media Corporation. All rights reserved.