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Domestic Recycled Paper Capacity Increases - Updated

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On January 1, 2018, the Chinese government's import ban on mixed paper went into effect. Three years later, that country's ban on all wastepaper imports, including corrugated boxes, went into effect. China was *not* the major end market for America's recycled paper. At the peak of recycled paper exports, U.S. mills still bought 60 percent of America's wastepaper. However, Chinese mills were an important end market, especially for residential mixed paper.

When the bans were announced in July, 2017, North American paper mills saw an opportunity. They are meeting the challenge with recycled paper capacity is increasing dramatically in North America. When NERC first published this list in November, 2018, it included new capacity at 17 mills, of which three projects were completed. This latest update includes 28 expansions, of which nine have been completed. Whether or not all of the new capacity is built depends, among other things, on overall economic circumstances and demand for the final products. Announcement of a new mill does not guarantee it will be built. One planned conversion is now on hold. Announced opening dates are often pushed back. Nonetheless, the completed and announced capacity increase is impressive.

The list of additional North American recycled paper capacity includes totally new paper mills along with existing mills that are closed or are still operating but are being converted to produce different end products (e.g. from newsprint to packaging). It also includes two mills that will be using recycled feedstock other than OCC and RMP. One is a facility designed to produce paper pulp and plastic pellets using beverage cartons and aseptic packages as its primary feedstock. The other is a mill designed to use food contaminated paper from commercial sources.

The majority of new capacity increases in this list are for mills producing linerboard and corrugated medium. They will use old corrugated containers (OCC), often called "cardboard boxes", as their feedstock. They are unlikely to use mixed paper, whether derived from residential or commercial recycling programs, unless their stock preparation system allows for its use. However, up to half of these mills plan to use mixed paper. For the most part, mixed paper will be a minor input. Several mills, however, plan to consume significant amounts of residential mixed paper (RMP) which is collected at curbsides throughout the country. In addition, the price for mixed paper tracks that of old corrugated containers. Increased capacity and market value for old corrugated containers normally increases the price paid for residential mixed paper.

Completed additional capacity is the first part of this list. The mills are listed in rough order of their projected opening. Sources include the Fibre Box Association, articles in Resource Recycling, Paperstock Reports, Recycling Today, Scrap Magazine, Waste 360 and Waste Dive along with company press releases, local or national newspaper articles. Resource Recycling Magazine publishes a map with detail on 18 of these

facilities. See <https://resource-recycling.com/recycling/2019/08/27/these-projects-are-boosting-domestic-capacity-for-recycled-paper/>.

Each facility is listed by name, location, whether new or converted, projected final production capacity in either tons per year (TPY), metric tonnes per year (MTPY) or tons per day (TPD), depending on the source, raw material feedstock and projected opening. Data is often incomplete because the individual companies determine what information they will release. This list will be updated as new capacity is announced or new information received.

If you have any questions about facilities on this list, please contact Chaz Miller, Chair, NERC-NEWMOA Regional Recycling Markets Committee, chazmiller9@gmail.com, 301-346-6507.

Completed

Midwest Paper Group

- Combined Locks, Wisconsin
- Conversion of coated paper to packaging
- 400,000 TPY
- OCC, double-lined preconsumer kraft and mixed paper
- 2018

Packaging Corporation of America

- DeRidder, Louisiana
- Conversion of newsprint to linerboard and corrugated medium
- 150,000 TPY
- OCC
- 2018

Hood Container

- St. Francisville, Louisiana
- “New recycling plant”
- 120,000 TPY
- OCC
- 2018

Copamex

- Anahuac, Mexico
- Convert existing graphic paper to recycled containerboard
- 220,000 TPY
- OCC, RMP
- 2019

Pratt Industries

- Wapakoneta, Ohio
- New
- 360,000 MPTY recycled corrugated packaging
- OCC, RMP, double-lined kraft
- 2019

Grupo Gondi

- Monterey, Mexico
- New containerboard
- 441,000 TPY
- OCC
- 2020

Bio Pappel/McKinley Paper Co

- Port Angeles, Washington
- Closed graphic paper mill
- 250,000 TPY containerboard
- OCC, mixed paper
- 2020

Port Townsend Paper

- Port Townsend, Washington
- Existing mill makes 325,000 tons per year of kraft linerboard, corrugated medium, kraft converting paper and kraft pulp
- Expanded OCC capacity from 400 to 750 TPD
- 2020

International Paper

- Riverdale, Alabama
- Conversion to linerboard and containerboard using some OCC
- 450,000 TPY
- OCC
- 2020

Announced not yet open

Packaging Corporation of America

- Wallula, Washington
- Conversion of fine paper to linerboard
- 350,000 TPY
- OCC
- First quarter 2021

Nine Dragons

- Biron, Wisconsin
- Convert existing machine to produce corrugated medium and linerboard along with new production of recycled pulp
- 250,000+ TPY linerboard and corrugated medium
- New 400,000 TPY recycled pulp line primarily for export to China
- OCC, mixed paper
- First quarter 2020 conversion of existing machine to recycled linerboard and corrugated medium
- First quarter 2021 240,000 tons of recycled pulp capacity expected to start

Nine Dragons

- Fairmont, West Virginia
- Existing mill produces recycled content bleached kraft pulp mill for packaging and tissue products
- New mill to increase production capacity to 220,000 TPY and ship recycled pulp to China
- Existing mill uses sorted office paper, newsprint, and other grades.
- New mill to use OCC (80%), RMP (15%), and sorted office paper/solid bleached sulfate
- 2020 60,000 tons recycled pulp for export
- 2021 60,000 tons recycled pulp for export

Nine Dragons

- Rumford, Maine
- New recycled pulp facility at existing mill. Rebuilding began early 2020.
- 400,000 TPY pulp (ship to China)
- OCC
- First quarter 2021, 200,000 metric tons of recycled pulp for export

Green Bay Packaging

- Green Bay, Wisconsin
- New mill replacing smaller existing mill
- 685,000 TPY containerboard
- OCC, RMP
- Spring 2021

Global Win/Shanying; Phoenix Paper

- Wickliffe, Ballard County, Kentucky
- A new mill will produce recycled pulp for export to China. This new facility joins the conversion of a closed coated paper mill to kraft pulp and packaging using virgin raw material. Total output is 700,000 TPY.
- Mill began production of bleached virgin hardwood pulp on May 23, 2019
- OCC, RMP
- Third quarter 2021, for recycled pulp mill

Total Recycle Fiber

- Chesapeake, Virginia
- New mill
- 203,000 MTPY dry recycled pulp
- 231,000 MTPY: 90% RMP/OCC, 5% non-paper contaminants, 6% non-pulpable paper
- Fourth quarter 2021

Empire Recycled Fiber

- Fairless Hills, Pennsylvania
- New facility to make 440,000 TPY of recycled paper pulp
- 505,000 TPY of OCC and mixed paper as feedstock with 70% OCC and 30% mixed paper
- Fourth quarter 2021/First quarter 2022

CorrVentures

- Albany, New York
- New mill built on site of existing facility
- 300,000 TPY 100% recycled lightweight containerboard: 70% linerboard and 30% corrugating medium
- OCC, RMP (330,000 TPY consumed – the mill expects mixed paper will be 13 to 22 percent of consumption)
- First quarter 2022

Graphics Paper, Inc.

- Kalamazoo, Michigan
- New facility to make 500,000 TPY of coated recycled paperboard. Note: this facility displaces an equal amount of capacity that will be closed at other facilities.
- First quarter 2022

Saica Group

- Hamilton, Ohio
- Recycled corrugated packaging paper
- Production tonnage not announced
- Feedstock includes 66,000 TPY “recovered paper”
- First quarter 2022

Atlantic Packaging Products

- Whitby, Ontario
- 400,000 MTPY corrugated medium and linerboard
- OCC and RMP
- First quarter 2022

Cascades

- Hanover, Virginia
- Convert closed recycled newsprint mill to recycled lightweight linerboard and corrugated medium
- 400,000 MTPY
- OCC, RMP
- Fourth quarter 2022

Crossroads Paper

- Salt Lake City, Utah
- New facility to make containerboard for corrugated boxes
- 350,000 TPY of “packaging paper” production
- 380,000 TPY OCC and mixed paper
- 2022

Kamine/Celadon

- Tampa, Florida
- Mew facility to make 400,000 tpy of recycled pulp
- OCC and RMP
- 2022

Sonoco

- Hartsville South Carolina and Wisconsin Rapids, Wisconsin
- Conversion at Hartsville and increased capacity at Wisconsin Rapids to produce uncoated recycled paperboard. Note: these conversions displace an equal amount of capacity that will be closed at other facilities
- OCC and mixed paper
- 2022

Domtar

- Kingsport, Tennessee
- Conversion of existing printed paper mill to packaging grades
- 600,000 TPY of recycled-content linerboard and corrugated medium
- 660,000 TPY of OCC and mixed paper
- First quarter 2023

Pratt Industries announced two new mills relying on OCC and mixed paper will be built by 2026. No locations were announced.

Mills not using OCC or RMP but using other grades of recycled paper

Ecomelida

- Orangeburg County, South Carolina
- New
- Process food and beverage cartons including aseptic packages and paper mill pulp byproducts into 72,000 MTPY plastic pellets and 36,000 MTPY paper pulp for export to China
- Fourth quarter 2020 plastic pellets
- First quarter 2022 paper pulp

Georgia Pacific Juno Technology

- Toledo, Oregon
- New
- 300 TPD containerboard
- Commercial waste from restaurants, airports, sports arenas, schools, etc.
- First quarter 2021

Project on hold

Verso Corporation

- Duluth, Minnesota
- Addition of new recycled packaging capacity at mill previously only making virgin graphics paper
- OCC
- 90,000 TPY recycled packaging paper
- Graphics paper mill shut down. Conversion not finished.

Conclusion

The total new capacity that this information reflects the potential for more than 5 million TPY of new OCC and mixed paper consuming capacity and 1 million TPY of recycled pulp.