



WASHINGTON REFUSE & RECYCLING ASSOCIATION

Updated 10.18.17

China set to ban import of many recyclable materials by 2018

- Beijing notified the World Trade Organization in July that it plans to **ban the import of at least 24 varieties of solid waste and recyclables**, including mixed plastic and paper, metals, and other materials commonly sold by U.S. recyclers by 2018. China will also adopt stringent quality control standards in November 2017.
- The ban is part of a broader Chinese customs program called “Operation Green Fence,” which began in 2013 and aims to reduce waste importation and contamination of recyclable materials. The latest phase of this operation is called “**National Sword**,” which increases enforcement and bans the import of many materials.
- **China is the single largest consumer of recyclable materials exported** from the United States. **Wastes and recyclable materials are the sixth largest U.S. export to China.** U.S. recyclers, particularly on the west coast, have relied on demand from the Chinese market to sustain their operations.
- China has already imposed a **new and extremely prohibitive quality standard for material limiting contaminants to 1.5% in January 2018 the limit drops to one-third of one percent (0.3%).** This requirement applies to all materials, even those not covered under the ban. A typical permitted recycling facility (Material Recovery Facility or MRF) achieves contaminant rates of 3-5%. U.S. recyclers are already suffering effects of the new policy, as shipments of recyclable materials take 3-4 weeks to reach China from the West Coast.
- The import **ban is set to enter into force by January 1, 2018**, but there is also uncertainty whether China will renew import licenses to satisfy the demands of its mills for recycled material. As a result, there is already a drastic reduction of all recyclables entering China.
- If implemented, National Sword’s ban will massively disrupt the U.S. recycling industry, leaving no outlet for many materials mandated by collection programs throughout the United States. The uncertainty and new quality standards have already created a crisis for U.S. recyclers.
- ***Update for the week of October 16, 2017:*** *According to our processors, the third week of every month is when orders from China are confirmed for the following month. That means sometime this week, we will know if there are markets available for our recycling in November. If China decides that it will no longer accept any mixed waste paper, there would be no market in November. Every aspect of Washington’s system will be affected by that market shut down from collection to MRFs, transfer stations and landfills, to local governments and customers.*

U.S. recycling sustainability has relied on demand from China

- The United States runs a massive trade imbalance with China, and there is little demand at ports for space in shipping containers returning to China. **Historically, the trade imbalance and shipping space has been filled by the solid waste and recycling industry shipping recyclable materials for use by Chinese manufacturers.** The dynamic has allowed for a sustainable U.S. recycling industry, which has an abundance of the scrap metal, paper, plastic, rubber, and electronics that Chinese recyclers and manufacturers require.
- It’s often much cheaper to ship recyclable materials from the U.S. to China than to transport the same materials a fraction of the distance domestically by road or rail. Now, shipments of recyclables are already being rejected at Chinese ports for failure to meet the new 0.3% contaminant limit, contributing to uncertainty.

- The impact is expected to vary by region and local markets across the country, but the West Coast will suffer some of the strongest impacts due to historical reliance on the ports and Chinese markets for recyclables. **The U.S. recycling industry is already experiencing challenges as commodity prices fall, as much as 50% in some cases.**

Threats and challenges for U.S. recycling

- U.S. recycling will be heavily impacted by China's import ban. For many materials collected by U.S. recycling programs, sufficient markets and processing capability do not currently exist outside China.
- **U.S. recycling programs mandate the collection of many recyclables, which will have no market value or capability to be processed.** U.S. mills and producers are operating at capacity. The surplus of materials from mandated recycling programs will drive prices for recyclables to historic lows and leave others with no clear destination.
- **China's new quality standards are unattainable.** A typical permitted MRF achieves residual rates of 3-5%. Now, China will only accept materials with a 1.5% contamination rate. U.S. MRFs are already slowing processing and intake to achieve this rate. After January 1, 2018, China will only accept materials with a 0.3% contaminant rate, an unachievable number.
- **U.S. MRFs will not be able to process the huge amount of materials collected by recycling programs while maintaining the new quality standard.** For example, if a typical MRF receives 100 trucks of material per day and achieves a typical 3% contamination rate, it will have to slow processing and accept 50 trucks to achieve the 1.5% contamination rate. To achieve the new 0.3% rate in 2018, a MRF would process less than 10 trucks a day. The U.S. lacks the processing capacity to achieve the new quality standards and process the amount of material required.
- **U.S. recycling programs must ensure high quality recyclables and remove materials with no market or processing capability from the recycling stream.** High quality material is more likely to find a market. The new 0.3% contaminant limit is far below any existing international standard. However, high quality material will be welcomed by domestic and international markets.
- Markets in China and elsewhere remain for higher grade recyclables and recycled commodities. **The ban presents an opportunity and a necessity to review curbside recycling programs and improve their quality.** Communication across the recycling supply chain will be key, extending from collector to end user.
- **Commodity prices are falling.** Uncertainty in the short and long-term Chinese export markets is already disrupting the markets for recyclables. Short-term disruption is caused primarily by a lack of the quotas required by the Chinese Government for Chinese mills to import products, along with unachievable new quality standards. Longer-term disruptions may be caused by China's new material ban.
- **The impacts of National Sword are already happening.** Shipments of recyclables take at least 3-4 weeks to reach China, longer in some cases. Material is accumulating as U.S. recyclers slow processing and fear shipping materials which may not have a market or meet the new quality standards by the time they arrive. If a shipment is rejected, the cost to return the container to the U.S. can be tenfold the original shipping cost. Uncertainty is causing commodity prices to fall by up to 50% in some cases.
- China's ban on waste and recyclable imports will bring many challenges for the U.S. recycling industry. Washington's collection and recycling companies are revising their routes for recyclables and developing plans with local government partners to handle materials that no longer have a market. The solid waste and recycling industry must work with county, city, and state officials to develop solutions to the emerging crisis in the near-term, and to work together for longer-term solutions.

WRRR believes in recycling!

For more information please contact WRRR Executive Director Brad Lovaas at (360) 943-8859 or brad@wrra.org.



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Comprehensive List of Banned Materials under National Sword

Updated 10.13.17

For materials not subject to the ban, China has instituted a new and extremely prohibitive quality standard for material limiting contaminants to one third of one percent (0.3%). This requirement applies to all materials, even those not covered under the ban

Products covered (HS or CCCN where applicable, otherwise national tariff heading. ICS numbers may be provided in addition, where applicable):

Plastic:

- 3915100000; Waste, parings and scrap of polymers of ethylene
- 3915200000; Waste, parings and scrap of polymers of styrene
- 3915300000; Waste, parings and scrap of polymers of vinyl chloride
- 3915901000; Waste, parings and scrap of polyethylene terephthalate
- 3915909000; Waste, parings and scrap of other plastics

Vanadium slag:

- 2619000021; Scum and slag with vanadium produced by smelting the steel, containing vanadium pentoxide more than 20%(other than granulated slag produced by smelting the steel)
- 2619000029; Other scum and slag with vanadium produced by smelting the steel(other than granulated slag produced by smelting the steel)
- 2620999011; vanadium slag from iron or steel smelting containing more than 20 percent vanadium pentoxide)
- 2620999019; slag, dust or residue containing between 10–20 percent vanadium pentoxide

Paper:

- 4707900090; Unsorted waste paper

Waste textile materials:

- 5103109090; Other noil of fine animal hair
- 5103209090; Other waste of fine animal hair (including yarn waste, but other than gametted stock)
- 5103300090; Other waste of coarse animal hair (including yarn waste, but other than gametted stock)
- 5104009090; Gametted stock of fine or coarse animal hair
- 5202100000; Yarn waste (including thread waste)
- 5202910000; Gametted stock of cotton
- 5202990000; Other cotton waste
- 5505100000; Waste (including noils, yarn waste and garneted stock) of synthetic fibres
- 5505200000; Waste (including noils, yarn waste and garneted stock) of artificial fibres

- 6310100010; Sorted new or unused scrap articles of textile materials (scrap twine, cordage, rope and cables and their products)
- 6310900010; Other new or unused scrap articles of textile materials

Other:

- (HS 2619), Ash and residues (other than from the manufacture of iron or steel), containing arsenic, metals or their compounds.
- (HS 2620), Waste, parings and scrap, of plastics.
- (HS 3915), Waste of wool or of fine or coarse animal hair, including yarn waste but excluding garnetted stock.
- (HS 5103), Garnetted stock of wool or of fine or coarse animal hair.
- (HS 5104), Cotton waste (including yarn waste and garnetted stock).
- (HS 5202), Waste (including noils, yarn waste and garnetted stock) of man-made fibres.
- (HS 5505), Used or new rags, scrap twine, cordage, rope and cables and worn out articles of twine, cordage, rope or cables, of textile materials.
- (HS 6310), - Other, including unsorted waste and scrap (HS 470790).

Simple listing with common names:

- Plastic waste from living sources
- Mixed unsorted paper
- Plastics type #3-#7.
- ethylene; styrene; vinyl chloride; PET; other plastics
- Waste textile materials
- Slag, dross (other than granulated slag), scalings and other waste from the manufacture of iron or steel.
- Ash and residues (other than from the manufacture of iron or steel), containing arsenic, metals or their compounds.
- Waste, parings and scrap, of plastics.
- Waste of wool or of fine or coarse animal hair, including yarn waste but excluding garnetted stock.
- Garnetted stock of wool or of fine or coarse animal hair.
- Cotton waste (including yarn waste and garnetted stock).
- Waste (including noils, yarn waste and garnetted stock) of man-made fibres.
- Used or new rags, scrap twine, cordage, rope and cables and worn out articles of twine, cordage, rope or cables, of textile materials.
- Other, including unsorted waste and scrap
- eight types of postconsumer plastic scrap;
- 11 types of used or scrap textile materials; and
- four types of metal slag that contain vanadium.

Sources:

- WTO Notice: <https://resource-recycling.com/resourcerecycling/wp-content/uploads/2017/07/CHN1211.pdf>
- [WCRRC Comments](#)
- National Waste & Recycling Association: <https://wasterecycling.org/blog/2017/10/02/3806/>
- CNN: <http://money.cnn.com/2017/09/11/news/china-scrap-ban-us-recycling/index.html>
- ISRI: <http://www.isri.org/news-publications/article/2017/07/18/isri-statement-on-china%27s-intent-to-ban-certain-scrap-imports#.Wbcqg7J95aS>
- <https://resource-recycling.com/recycling/2017/07/19/china-says-it-will-ban-certain-recovered-material-imports/>
- <https://resource-recycling.com/recycling/2017/07/25/wm-exporters-reacting-chinas-ban/>
- <https://resource-recycling.com/recycling/2017/05/23/national-sword-upending-exports/>

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