



Big changes coming to Oregon recycling?

FAQ on how Chinese restrictions on importing recyclable materials will affect Oregon recycling programs

Introduction

New restrictions by the Chinese government on what recyclables may be imported into their country are likely to have significant impacts on Oregon State's residential and commercial recycling programs. China is a major destination for our state's recyclable commodities.

By the end of this year, the new regulations are known as "China National Sword 2017" will begin taking effect. China has announced that, as of the beginning of 2018, they will no longer allow the importation of low-grade post-consumer plastics and unsorted paper. The regulations aim to increase the quality of the recyclable commodities entering China by restricting the amount of contamination permitted in imported recyclables. For instance, if a lid from a plastic food container is mixed in with recyclable paper, it contaminates the paper and reduces its value.

As the Chinese work to implement their new regulations, this is likely to be a period of transition and, over time, Oregon consumers may see changes in what is allowed to go into single-stream recycling bins, or other changes in their local recycling programs. In the short term, more potentially recyclable materials are likely to go to the landfill because no market is available for them.

What is China's ban on accepting recyclable materials?

China has announced that beginning Jan. 1, 2018, it will no longer allow the import of low-grade post-consumer plastics and unsorted paper. This action is in response to the poor quality of recyclable materials shipped from the U.S., Australia and Europe, severe impacts on environmental and human health caused by poor recycling infrastructure and China's desire to develop its own domestic markets for recyclable materials.

China first began trying to address these issues in 2013 when it launched an effort to reduce contamination in the bales of recyclable materials being imported into the country. This initiative, called "the Green Fence," was focused on improving the quality of these bales.

In spring of 2017, China implemented additional restrictions on importing recyclable materials. This new initiative is called "National Sword 2017." In July, China announced a complete ban on these materials in 2018. Because it can take weeks or months to load materials on ships and travel from ports in the U.S. to China, the impacts of the ban are being felt now.



What is the specifics of the ban?

There are three key components on the new restrictions.

1. Ban of all Unsorted Mixed Paper and Mixed Plastics

On July 18, the People's Republic of China informed the World Trade Organization of its intention to ban the import of 24 recyclable commodities, including "unsorted mixed paper" and "mixed plastics" effective Jan. 1, 2018.

The ban proposal came amid China's "National Sword" customs enforcement effort that started in February 2017. The National Sword campaign is essentially a crackdown on smuggling and contaminated scrap imports, and has led to arrests, confiscated scrap materials, and increased shipment times for exporters.

2. Reduction of Contamination Threshold to 0.3%

As of Jan 1, 2018 all scrap materials imported into China may not exceed 0.3% contamination. This far exceeds the existing industry standard established by the Institute of Scrap Recycling Industries' (ISRI) Quality Specifications Circular, which allows for 1.5% to 5%, depending upon the grade. It is believed that a 0.3% contamination limit would render virtually all domestic recovered materials ineligible for sale to China.

3. Suspension of all New License Approvals

China has frozen the approval of all scrap paper import permits since May. As a result, the majority of scrap paper import companies are not able to import any scrap paper into China, which has caused a virtual total suspension of all imports since September.

How is this ban affecting Oregon?

The ban is beginning to create a major disruption in Oregon and throughout the region. Material recovery facilities in Oregon, which receive mixed recyclables and sort them for resale to commodities brokers, have been drastically slowing down their processing of recyclable materials in an attempt to reduce contamination. This has caused a reduction in the amount of material that can be processed. The amount of material collected in Oregon currently exceeds the processing capacity at these slower processing rates. In the short term, some materials may not be able to be processed and will need to be disposed of.

What are the long-term impacts?

The impacts of the ban are just beginning to be felt and we don't know how the situation will shake out in the long term. Department of Environmental Quality (DEQ) and its partners in local government and



at recycling companies are working together to develop strategies to strengthen our recycling system and increase its resilience.

How did Oregon become so reliant on Chinese markets?

China is the single largest consumer of recyclable materials generated in North America. One-third of all scrap material collected in the U.S. is shipped overseas, with the large majority of this material going to China. In 2016, the U.S. exported \$5.6 billion in scrap commodities to China. This makes recyclable materials the sixth largest U.S. export to China.

Shipping recyclable materials to China is cheap because container ships bringing manufactured goods to the U.S. from China do not want to return empty. This opened the door for recyclable materials to be able to be shipped to China at very little cost.

Chinese manufacturers have also grown to depend on the cheap feedstock of U.S. recyclable materials in their processing. Recyclers in Oregon and on the west coast have relied on Chinese demand for feedstock, cheap labor and cheap shipping for recyclable materials. These factors have resulted in the loss of domestic markets for these materials.

These Chinese markets were so hungry for recycled feedstock that there has been little emphasis placed on the overall quality of the materials sent. As more and more cities in the United States moved to commingled recycling systems (i.e., putting all paper, glass, metal, and plastic together in one cart) contamination in recycled bales has increased.

What is recycling contamination and why is it a problem?

Recycling contamination is any item that does not belong in the recycling process. Recycling contamination can either be a material that is not collected for recycling or when different types of recyclable materials are mixed and baled together. Letting a lid from a plastic container become mixed in with paper contaminates the paper. Likewise, if the glass is placed in with other recyclables, it can break and contaminate the rest of the material.

Contamination is a serious issue – it reduces efficiency, destroys value and leads to greater waste. DEQ and its partners have been tackling issues related to contamination for several years, with a particular focus on residential commingled recycling (the single bin for recycling most homeowners are familiar with).

While there are many ways to reduce contamination, the most important are increased education. What is accepted in one city may not be accepted in a neighboring city. Local governments, their collection companies and their processors need to develop coordinated messages on what does and does not belong in a commingled bin. Common items that can contaminate recycling bins include plastic bags, plastic wrap and film, liquids, food, soiled packaging, garden hoses, wire hangers, diapers, electronics, light bulbs and batteries. Some of these items can be recycled separately - but not in a commingled bin.



When a contaminant enters the system, it can cause problems with the sorting machinery. For example, plastic bags and garden hoses can wind around parts of the machinery that sorts recyclables. This causes damage to the machinery and safety concerns for workers. When plastic bags or lids get sorted into bales of paper, the value of the bale of paper is decreased.

What should Oregon residents do? How can I help?

Keep recycling whenever and whatever is possible. Recycling is still the right thing to do – it saves energy, resources and reduces greenhouse gases. Just keep these thoughts in mind:

- Ensure your recyclables are clean and dry. Food residue is a contaminant. Water gets the paper wet and decreases its value.
- Pay attention to instructions from your local city, county or recycling service. These instructions can change over time with changes in markets.
- When in doubt, throw it out. If an item is not clearly listed as an accepted material for the collection, err on the side of throwing it away. Non-recyclable items decrease the effectiveness of the system and can reduce the value of other recyclable materials.
- Many materials are still being recycled! Aluminum cans, cardboard, plastic water and soda bottles and milk jugs (#1 and #2 bottles) are all in demand by domestic processors as recyclable commodities.

What is DEQ doing to address these issues?

DEQ is expanding the work and scope of our commingled improvement recycling project. Working with partners from local governments, processors, collectors, exporters and end users we are strategizing on both the short and long term.

In Oregon, recycling regulations are set by local governments. DEQ is advising local governments to be flexible as our state's recycling system adapts to these new regulations.

Respectfully,

Your Marion County Haulers

D&O Garbage Service, Inc.
Loren's Sanitation Service, Inc.
Pacific Sanitation Inc.
Valley Recycling & Disposal, Inc.
Suburban Garbage, Inc.
Republic Services of Salem



Reference links

Here in Marion County, we will do our best to keep all of you up to date and as informed as possible. You will, undoubtedly, be getting a lot of questions and be hearing rumors and confused opinions on the matter. Please, when in doubt...find out! Keep a close eye on the DEQ website mentioned above and keep tabs on the online Marion County Recycling Guide.

Marion County link – <http://www.co.marion.or.us/PW/ES/disposal/programs/recycling>

Marion County link to “Recycle it Right”

DEQ Link about the topic - <http://www.oregon.gov/deq/mm/Pages/Recycling-Markets.aspx>.

Master Recyclers link about the topic - www.masterrecycler.org/news/2017/10/5/emerging-changes-to-recycling .

Plastic Bag recycling link - www.plasticfilmrecycling.org/recycling-bags-and-wraps/find-drop-off-location.