China and Recycled Commodities: The Perfect Storm?

In July 2017, the Chinese government filed a notification with the World Trade Organization indicating the government's proposal to ban the import of 24 solid waste materials. What does this currently mean for the U.S. and in the months to come?

By Marc J. Rogoff, Ph.D.

Back in 2000, a movie starring George Clooney, "The Perfect Storm", told the story of an October 1991 tempest off of New England that may happen only once in a century. It was a nor'easter created by so rare a combination of factors that it could not possibly have been worse. Creating waves 10 stories high and winds of 120 miles an hour, the storm whipped the sea to inconceivable levels few people on Earth have ever witnessed.

When I view the recent Chinese government actions this past year with regard to recycled commodities and contamination of imported bales, I see unprecedented factors in play as "The Perfect Storm"—the banning of solid waste materials and imposing an almost unreachable contamination standard on bales entering China. In essence—a ban.

The World Trade Organization

In July 2017, the Chinese government filed a notification with the World Trade Organization (WTO) indicating the government's proposal to ban the import of 24 solid waste materials, namely certain types of mixed papers and plastics. Further, the government said in November that it would impose a 0.3 percent contamination standard on bales. Both actions were planned for the implementation on March 15, 2018. Additional comments are due to the WTO on December 15. It is expected that stakeholders will ask for a lower contamination rate and a longer lead time.

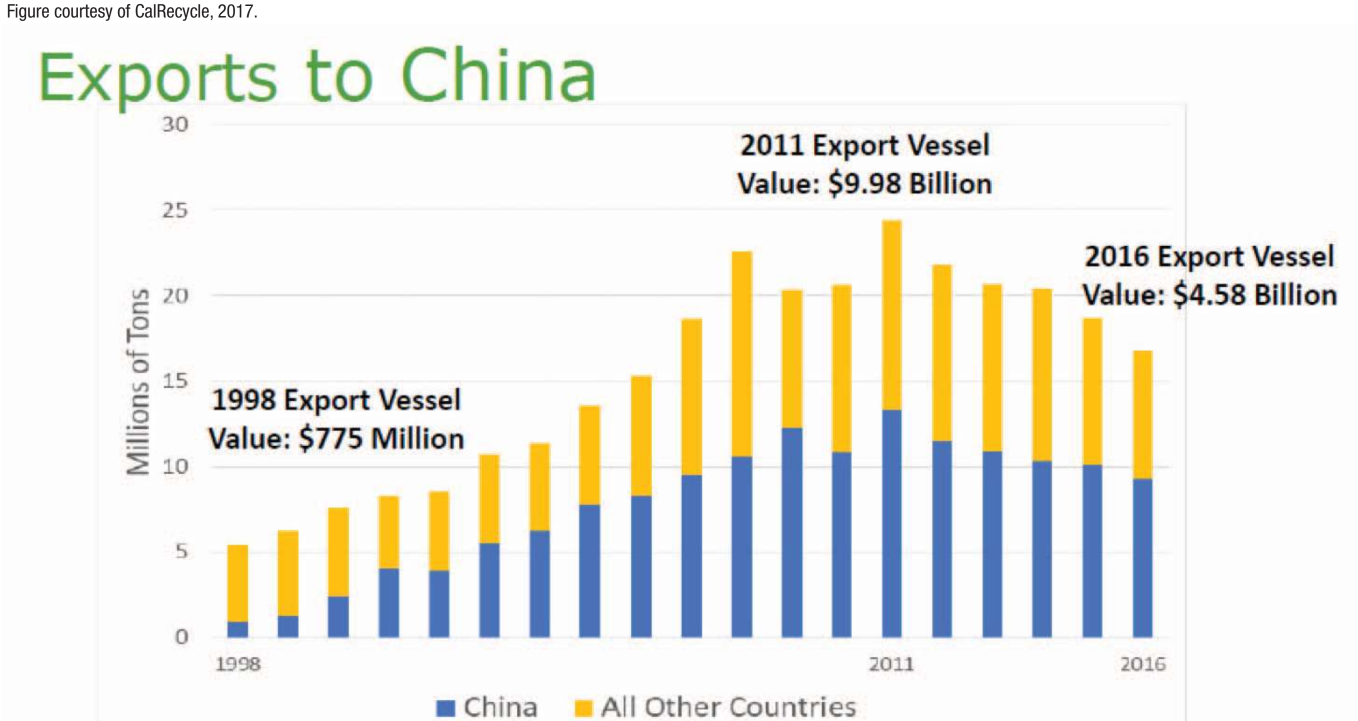
Currently, the Chinese recyclables market represents about 25 percent of U.S. recycled paper exports and anywhere from 20 to 33 percent of recycled plastics, depending the type of plastic. ISRI estimates that this is a $5.6 billion export market for the U.S.

The objective of this import ban and contamination limit was to minimize "foreign garbage" entering the country and to promote new environmental standards. Pursuant to this "ban" import licenses from China have not been renewed. The result has been a drop in commodity prices worldwide, especially in the U.S. because the flow of commodities into China, one of the largest importers of recyclables, has been disrupted.

Solid Waste Industry Association Actions

As soon as news events unfolded about the import ban and the contamination standard, various solid waste industry groups (Institute

Figure 1: Exports to China.
Figure courtesy of CalRecycle, 2017.



of Scrap and Recycling Industries [ISRI], National Waste and Recycling Association [NWRA], and the Solid Waste Association of North America [SWANA]) issued industry blogs, press releases, presentations at national/international conferences and letters to state solid waste agencies.

For example, SWANA met with stakeholders and the U.S. Department of Commerce. The Department raised recycling market issues with their Chinese counterparts in Beijing in September and in bilateral trade meetings in September and October. Further, SWANA met with the U.S. Environmental Protection Agency (EPA) in October as the import ban was beginning to ripple throughout municipal solid waste programs. A letter was sent on October 11 to all 50 state environmental agencies providing an information update and potential description on potential impacts of these Chinese actions on municipal recycling programs.

West Coast Impacts

States and municipalities on the West Coast (e.g., Portland, Seattle) have enacted significant zero waste/diversion goals as part of their environmental and cultural ethic. These communities have implemented single-stream collection systems. Unfortunately, many of these programs have exhibited high contamination rates in the range of 20 to 25 percent. Given the proximity of the west coast to Asian markets like China, the amount of recycled commodities has spiraled in recent years. Some have estimated that recyclables represent nearly a quarter of all exports to China—the largest single export **(see Figure 1, page 29)**. This is hard for even me to believe.

So the reliance of the West Coast on exporting recyclables to China during these "Perfect Storm" conditions has resulted in commodities being stockpiled at some ports. To minimize this economic dilemma, some municipalities, namely the City of Portland, have petitioned the Oregon Department of Environmental Quality for waivers to landfill these stockpiled recycled commodities at nearby landfills.

Midwest Impacts

Impacts, as of December 2017, to Midwest solid waste programs appear somewhat muted as compared to the West Coast. However, some of the major national hauling firms with market power have been able to diversify their export markets and ship increasing quantities to India and Southeast Asia. Some increased labor at their MRFs to ship higher quality bales. Nonetheless, the prices for mixed paper have taken a haircut.

United Kingdom Impacts

Much of the attention in the U.S. press has been on the impact of the Chinese impost ban on local recyclables markets. However, truth be told, the ban has had worldwide impacts. In Europe, where recent efforts have moved towards zero waste and reduction in landfilling, recycling has been impacted mightily. For example, the United Kingdom exports about two thirds of its recyclables to China, roughly 2.7 million tons to Hong Kong since 2012. The impact will be significant by most observers in the European Union. "Now that China has decided they've had enough of our waste, it's obvious that the UK's recycling system simply can't cope with the mountain of plastic waste we generate," says Elena Polisano, oceans campaigner for Greenpeace UK.

The Future

To date, most trade organizations suggest that the impacts to local recycling programs from the Chinese actions depends on three basic site-specific issues:

1. Depends on whether you export—and where
2. Depends on your contract (force majeure?)
3. Depends on your contamination level

Some have argued that reducing contamination is the answer through efforts of education of customers to reduce contamination curbside, adding more workers and robotics at materials recovery facilities (MRFs) to clean up the bales leaving the these facilities, and to find other Asian markets such as India and Vietnam to sell U.S. recyclables. While education is clearly a reasonable answer, and one that municipalities should be doing as a matter of course, investment in U.S. facilities that would use these recycled materials is the only long-term answer. But this will take time.

In my opinion, we, as well as our European allies, have looked to Asian markets to dump our "unwanted materials". While we talk about entering the closed loop of materials management, we have done little, if anything to facilitate the development of this new paradigm. Our Federal and state tax codes continue to encourage the use of virgin materials rather than recyclable products. Even the new tax code changes eliminate the use of private activity bonds for investment in recycling facilities.

Another answer is changing the way many municipalities fund their solid waste programs. Typically, many fund them out of landfill tipping fees that oftentimes do not take into account the cyclical changes in recycling markets. Funding appropriate operational fund reserves or rainy day funds is a way to insulate solid waste programs from the ups and downs in recycling. Also looking at a lifecycle cost of solid waste programs.

The Chinese import ban and contamination requirements will impact recycling programs both in the U.S. and Europe. In the short term, many programs may consider elimination of mixed paper and plastics from their curbside programs. There may be calls to landfill these materials in other programs. In my opinion, the long-term solution is to develop viable local and regional recyclables markets. This will take time. | WA

***Marc J. Rogoff, Ph.D.**, is Manager of the Southeast Sustainable Materials Management Program for SCS Engineers. He serves on the Executive Committee of the Solid Waste Association of North American and resides in the Tampa, FL office of SCS. Marc can be reached at (813) 810-5547 or via e-mail at mrogoff@scsengineers.com.*

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