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SINGLE STREAM, CONTAMINATION AND THE CHINA BAN

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Is China's ban the death of single-stream as we know it? The simple answer is: YES.

Commingled collection of materials, aka single-stream, sounds good at the home and curb but has created a vehicle for “wishful recycling” and outright dumping into recycling carts. Contamination rates have grown exponentially – to over 30% in the U.S., and up to 20% here in Iowa. This has led to China's ban on Mixed Paper #54, Sorted Residential Papers #56, Mixed Plastics and now even OCC.

HISTORY

In 2009 then President of China, Hu Jintao, stated China should become less reliant on the import of recyclables and trash shipped in from across the world. He recommended recycling collection across China and left it to the open market to establish this effort. This “You should” vs. “Thou shall” statement was not embraced by local governments or the Chinese business community, and little in-country recycling was initiated.

Wind the clock to January 1, 2013 and President Xi Jinping’s annual address to China. Xi made it clear that dependence on imports of recyclables was bad for China’s economy and made China the world’s garbage dump. Three weeks later the Green Fence went up and plastics were the target commodity. It was a “Thou shall” mandate, but the global recycling industry didn’t take it seriously. In April 2017, when over 5000 sea containers were rejected by China for poor quality, what did the global industry do? We sort of cleaned up our plastics and let our fiber grades continue to violate quality standards (the old weaker standards, not today’s new tougher standards). Exports continued at record paces into China.

On January 1, 2017 in President Xi’s annual address included several simple phrases translated to: Blue Water, Blue Sky and National Sword. Air, water and land were now a primary goal of Xi’s administration ... and he meant business. Again the global recycling industry stuck its head in the sand, saying Xi’s statements were “rhetoric” and China could not survive without the Western World’s fiber. At first nothing changed. Inspectors still let tainted material slip into China. But soon thereafter, most inspectors were replaced, and corrupt supervisors were arrested and jailed.

Still, the global industry said “China needs us” and predicted a short-lived event. Yet by the end of March 2017, China’s version of the EPA announced new standards. The 2% U.S. standard for contamination of mixed paper and sorted residential papers would no longer be acceptable. China’s new standard was 0.5% for contamination. This is

an achievable standard but takes a lot of work and higher costs for MRFs, especially with ever-increasing wishful recycling and higher trash percentages.

By mid-2017, China could see the quality from global suppliers was not improving so it announced an outright ban on all Mixed Paper #54 beginning January 1, 2018. *As of April 1, 2018, Mixed Paper #54, Sorted Residential Papers #56, Mixed Plastics and OCC from single stream are effectively banned. China mill groups will not purchase these grades out of fear of rejection.*

RECENT DEVELOPMENTS

January 11, 2018: President Xi mandates “Thou shall recycle” to the largest 46 cities in China. (The population of city #46 is larger than the entire population of Iowa). Each city has specific recovery targets to meet by the end of **2019**. This signals to me the seriousness of the Presidential mandate.

Additionally, China’s culture is changing. Buying patterns are beginning to mirror the Western World and its need for packaging for internal consumption. China can and will become its own source of most of its fiber, lowering the cost to big mill groups, reducing dependence on foreign fiber and creating jobs and a cleaner China.

February 7, 2018: In response to the early effects of the ban, German officials go to the EU to call for a “Europe-wide abolition of commingled collection systems.”

March 15, 2018: I personally met in Los Angeles with representatives of the two largest mill groups in China. They reiterated this is not a short-term issue for China, but a long-term, permanent change in policy. The changes, they explained, are happening at a fast pace because this is a Presidential program. China will become self-sustaining in securing clean, recoverable fiber in the near-term and dramatically lower its dependence on imported recyclables moving forward.

The Chinese mill groups with whom I spoke have mills in Southeast Asia and India, but they were clear these regions will not be the next silver bullet for single stream. India has already begun discussions about raising standards to mirror those in China, while Southeast Asia is years away from having the infrastructure to handle a surge in fiber. Worse yet: Ports lack dock space and gantry cranes, and are not large enough to handle the super-containers ships. Loads must be transferred to smaller carriers in Hong Kong, creating a logistics nightmare for scrap paper – the lowest-value commodity carried in a sea container.

In the opinion of these industry leaders, we are looking at 2-5 years of troubled waters for commingled-collection fiber and plastic as infrastructure tries to catch up with the large supply of commodities banned by China. Meanwhile, the laws of economics come into play. Large supply and no demand means low – if any – value, and the inability to move product any distance from the processing MRF.

WHAT DOES THIS MEAN TO IOWA AND THE U.S.?

The U.S. faces its own infrastructure shortfalls. The industry has idled or dismantled many old paper mills, and our permitting and business-planning requirements put us on the same 3-5 yr. curve while we resurrect or build new mills to handle the oversupply of low-quality material. We are facing troubling times for the market value of primary tonnages from our single streams. With over 75% of material being delivered by single stream, we have a massive oversupply of mixed glass, mixed plastics, mixed paper and sorted residential papers (onp) now searching for markets. These materials have little to no market value. This perfect storm will change residential single-stream recycling as we know it today. As the cost of processing rises, lack of markets will lead to increased disposal of material at MRFs across the country. This has already started: Seattle, the nation's "greenest" city, has begun to landfill mixed paper. Escalating costs will be passed on to citizens who may reach a tipping point for willingness to pay for recycling at the curb.

Perhaps we'll be looking at:

- Mixed-waste MRFs utilizing alternative energy options (not burning, but gasification or methane manufacturing).
- Pulp mills taking low-grade fiber to clean up and sell to mills vs. making the paper themselves.
- A change in the collection process from single stream to dual stream.
- Conversion from mandatory to subscription services for collection. (Those who want to pay for recycling will do a better job than those who see it as an alternative to a full trash container.)

All these ideas and more will have to be considered now that China has lifted the lid on what's really happening at the curb and has shown the world it's no longer the planet's dumping ground.

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