

## **Appendix D**

### **Notes from tour of Midwest Fiber with Community Relations Specialist: Marie Streenz**

- Single-stream processing center, servicing all over central Illinois
  - Peoria, Decatur, Springfield: main recycling collection centers, and then trucked to Bloomington
  - \$ 8 million dollar facility, need enough material to make it worthwhile, which is why they service such a large area
- Haulers came up with single-stream recycling, because it is more efficient for them
  - Recycling industry adapted to haulers
- Midwest Fiber is half machine-run and half human employees
  - All processing centers have different approaches
  - Depends on \$
    - Humans: workers comp
    - Machines: machines fail, but are extremely efficient
    - Most efficient part of Midwest Fiber is the magnet that pulls out steel
- Recyclables start with a “fluffing” pile, as they come in very compact
  - Metering bin has rotating arms that fluff out material
  - Puts it on a belt that is 6” thick and taken to second floor to be sorted
- First sort is for things that shouldn’t be there or items that are too large, done by humans
  - Human employees wear gloves and arm shields
  - Needles biggest dangers for workers, more than one a day (plant has to shut down for needles, one bag of needles will cause multiple shut downs as some needles escape)
- Cardboard is rotated out
  - Glass is being crushed through series of metal rotators, into small pieces, 1” by 1” pieces, lot’s of contamination here
- Polishing screen at a 60-65 degree angle that separates material based on dimensions
  - Fans blow paper forward
- At Dual-Stream Now!
  - Fiber and Containers (terminology)
- Container Belt
- Steel, by-metal pulled up by magnet (most efficient part of system)
- Humans pull out #2 natural plastics, because they get a better re-sale then #2 colored plastics
  - #2 coloreds now separated
  - #1 plastics now separated, primarily soda bottles
- Last guy on this line is quality check
  - Pulls out missed recyclables

- Pulls out fiber (books, especially) and puts in drum that puts it back on the fiber line
- At this point in the containers belt there's only garbage and aluminum left
  - An eddy current adds a charge that will cause aluminum to jump into bins, leaving only trash on belt
- Fiber line
  - Pull out all trash (lot's of plastic bags)
  - Cardboard is more valuable so pulled out first
  - Containers pulled out and put in drum that puts it back on the container belt (flattening of containers major reason they end up on fiber belt! Advocate for no flattening of containers, caps on was meant to encourage people to not flatten containers)
- Plastics are chipped u, put in a vat of water, cleaned
  - Good plastics sink and bad plastics float and are skimmed off the top and captured
- Nationally trash rate is 14% for recycling factory
  - Midwest Fiber is 7%
- They do tours, summer camps
- Need more educational outreach
  - Material acceptance lists very clear
  - Plastics are fuzziest for contamination
- Bunkers (bins all material is dumped in when sorted to be made into cubes to be sold)
  - Paper and cardboard have walking floor, trucks have walking floors too, metal slats force material down
  - Gravity for other bunkers
- Plastics have a lot of memory and need about six to eight wires to keep them cubed together
- Cubes can weigh between 1200 – 1800 pounds depending on material, weight, etc.
- 10-12 truckloads sent out a week
  - 3-4 rail (3 semi-trailers of material)
- 2-3 markets for every given material
  - Pekin closest market, but also Aurora, Cedar Rapids, but also China, India, etc.
- Mixed rigids plastics, like flower pots have a very low value
- Single-stream plants are designed for every week recyclables produced (not unusual, once in awhile materials)
  - Bigger volume
- 70% of waste stream is either recyclable or compostable according to the EPA
  - \$11.2 billion valuable recyclable material thrown out
- 1.1 million jobs directly through recycling
  - 1.5 million indirectly
  - almost 3 million jobs dependant on recycling
- 32-34% recycling rate currently

- Huge growth potential
- Lots of partnering events
  - Recently in Decatur
- Oftentimes organizations reach out to Midwest Fiber, Midwest Fiber doesn't necessarily pursue other organizations
- Running one full shift currently, but could be running three
- Winter is slower for recyclables
- Midwest Fiber owns some business recycling routes
  - Both owns trucks and accepts other trucks