2017 Costs of Contamination

MRF WORKING GROUP SURVEY

THE RECYCLING PARTNERSHIP

The 2017 Costs of Contamination MRF Working Group Survey

In mid-2017, The Recycling Partnership surveyed its MRF Working Group to identify top contaminants and their impact at the Materials Recovery Facility (MRF) level. In gathering data using a matrix [Appendix 1], the surveyed group members provided detail on Labor; Facility Down Time; Disposal; Equipment Impact; Staff Injury; and Lost Value. Partnership staff were then able to delineate the relative costs of contamination, providing a picture of what makes up the greatest cost centers of a contaminated recycling stream.

The Recycling Partnership MRF Working Group – Consists of 11 representatives whose combined processing capacity makes up 70 percent of the nation's top 100 MRFs. This group consists of representatives from the following: Casella Waste Systems, Eco-Cycle, Emmet County (MI) Recycling, Pratt Industries, ReCommunity, Republic Services, Rumpke Waste & Recycling, Sims Recycling Solutions, Sonoco Recycling, Waste Management and WestRock. Following the collection of data for this report, Republic Services acquired ReCommunity.

In surveying the group, 10 contaminants were identified [see Text Box 1] and project staff used six cost categories [see Text Box 2] to quantify the economic impacts of said contaminants. While glass (if not on an accepted materials list) was identified when consulting the entire group, it was found that only one of the nine participating companies/MRFs had it as non-accepted, so the glass category was removed altogether from the study.

All information gathered was guaranteed to be held confidentially and all data was consolidated. Nine of the 11 MRF Working Group members participated in the survey, with a total of 37 facilities represented in the survey results. All information was gathered individually and independently, using the matrix in Appendix 1.

Top Contaminants at the MRF

(Text Box 1)

1. **Plastic Film and Bags**
2. **Tanglers (hoses, cords, rope, etc.)**
3. **Needles**
4. **Refuse**
5. **Propane Tanks**
6. **Textiles**
7. **Scrap Metal**
8. **Food Waste**
9. **Hazardous Materials (diapers, batteries, medical waste, etc.)**

Top Cost Categories

(Text Box 2)

1. **Disposal**
2. **Lost Value of Other Recyclables**
3. **Labor**
4. **Equipment Replacement/Repair/Wear**
5. **Facility Downtime**
6. **Staff Injury**

The top three contaminants make up almost three-quarters of the cost of contamination – 71 percent of the cost of contamination are made up by refuse (40 percent), plastic film and bags (24 percent) and tanglers (7 percent).

The top three expenses make up 80 percent of the contamination costs. Disposal of the refuse showing up in the inbound stream makes up 40 percent of the total costs incurred, while "Value Lost of Other Recyclables" came in at 26 percent and "Labor" involved in managing contamination at 14 percent, respectively.

-- The Recycling Partnership

APPENDIX 1: The Recycling Partnership 2017 "Cost of Contamination" Survey

COMPANY NAME:_____

LOCATION: _____
(Please specify whether it's a regional average and how many facilities were included in average or a single facility)

CONTACT PERSON: _____

EMAIL:_____

NEEDED TO EQUALIZED COLLECTED DATA:

HOURLY THROUGHPUT OF THE SYSTEM: _____

AVERAGE HOURLY LABORER'S RATE: _____

AVERAGE PER TON DISPOSAL COST: (inclusive – haul, tip fee, etc.) _____

AVERAGE HOURLY OPERATIONAL COST PER TON: _____

COMMENTS/NOTES: _____

_____

_____

Please provide data on a **quarterly** basis.

	Labor	**Facility Down Time**	**Disposal**	**Equipment Replacement/Repair Wear & Tear**	**Staff Injury**	**Lost Value of Other Recyclables**
Film/bags						
Tanglers						
Needles						
Refuse						
Propane Tanks						
Glass (only if not on your acceptable list)						
Textiles						
Scrap Metal						
Food						
Hazardous Materials (diapers, batteries, medical waste, etc.)						
TOTALS						