Resource Management Assets in the Northeast

- Hauling Facilities
- Recycling Facilities
- Organics Facilities
- Landfills
- Landfill Gas-to-Energy
- Transfer Stations
The Casella Recycling Arm

- 12 Recycling Operations
- 6 Single Stream Recycling Operations
- Process and markets over 800,000 tons/yr
- Boston, MA MRF – 7th largest in the U.S. (225,000 tons processed in 2016)
Cold Hard Facts within the MRF Industry

- A Material Recovery Facility (MRF) is a manufacturing plant. And no two Facilities are the same.
- Multiple moving pieces of Equipment
- 2011 to 2013 – 17 fatalities at Recycling Facilities
- Feb to July, 2016 – over 150 Fires (Contamination)
- 8.5 TRIR at MRF level vs. 3.5 TRIR at Waste Industry
- Most severe and dangerous – Lock out/Tag out (LOTO)
- Low Turnover contributes to a safer workplace
What we know.....

• Herbert William Heinrich
  – Behavior Based Safety Model (1931)
  – Travelers Insurance
  – Evaluated hundreds of thousands of accidents and injuries
Root of the Solution

• Findings of Heindrichs study:

  -- 88% of all accidents are a result of human error
  -- 10% of all accident and injuries are equipment failure
  -- 2% of all accidents are unresolved as to cause
How we start…..

• Senior leaders must commit time and resources ($$$$$$)

• Ensure active participation at all levels to ensure buy in and gain synergy

• Consistency in “message and action” are imperative to a successful plan
Evolution of Effective Safety

BEGINNING      DEVELOPING   PERFORMING   HIGH PERFORM   EXCELLEING

Manager driven and owned

Management initiated and quota driven

Management driven with increasing employee involvement/feedback

Employee-led & Strong management support

Safety Partnership, Comprehensive coverage
Case Study  (LOTO)

• Maine Facility
  – Material processing plant for blending organic material with bio-solids
  – 7 Full time employees
  – Injury free for 11 years
  – Annual Turnover negligible
  – Hours worked <50 per week
  – Average age of employees 49
Employee Training

• Training in all OSHA required topics with testing and observation
• Management and supervision no change in over 10 years
• Inspections of facility only minor issues identified by inspections
• Trained on the job by co-workers
Accident Information

• Occurrence:
  – 1:45 pm
  – Performing adjustment of belt on up-feed conveyor
  – Working alone
  – No communication prior to performing service
  – Guarding was chain and signage
  – Performed task over 50 times previous
  – Junior employee on site
  – No previous injuries
Guarding Prior to Injury

- Limiting access using chains and signs
- Signs stated “Authorized Personnel Only”
- No list of who “Authorized Personnel” were
- Procedures not adequate
Employee was adjusting tail pulley to “track” the belt while the belt was operational. The roller that is in this picture is the one that the employee was cleaning debris off of when he was pulled into the pinch-point.
Guarding After Incident
Solutions, Solutions, Solutions

- Policy change
- New Training Requirements
- Authorized Personnel List Updated
- Training for all personnel
Safety - Best Practices at the MRF

• “Tool talk” every morning.
• Safety calls (Minimum once per week)
• Safety Teams
• Safety Incentive
• Written Job Observations
• “People PM’s”
We are in it together!!

Teamwork