

Zero Waste and Recycling Interim Study Committee



Introduction



Andrew DeBaise

- Have been in the recycling industry for 17 years
- Served on Board of Directors for the National Demolition Association (NDA) for 6 years, Environmental Committee Chair for 4 years and National Convention Chair 2017.
- Member of the Construction & Demolition Recycling Association (CDRA) that promotes and defends the environmentally sound recycling of the more than 583 million tons of recoverable construction and demolition (C&D) materials that are generated in the United States annually.
- Have completed and worked on a wide range of projects
 - Houses to High Rises
 - Gas Stations to Gas Plants
 - Power Plants and Boilers
 - Local Projects include DIA and Interstate 70

Inbound Material Demographics

Ferrous

Colorado Facility

- 30% to 40% of total inbound ferrous material
- Sourced from construction and demolition projects

Nationally

- Recycle 30,000 to 40,000 tons from construction and demolition related projects



Recycling Process Related to Construction Material

- Job Walk and Analysis
- Know the materials that makes up a project
- Identify values
- Discuss logistics
 - Movement of material
- Sorting and processing
- Shipment to end user



Understanding Scrap Material

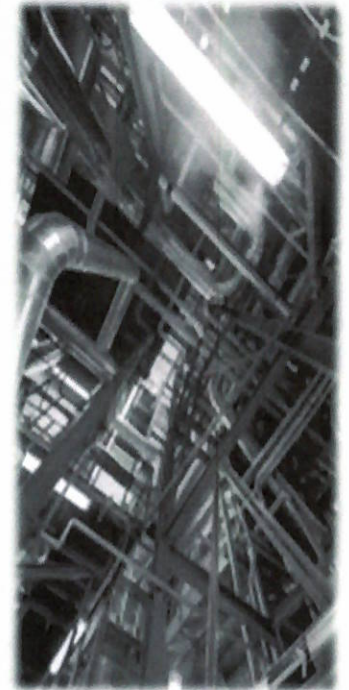
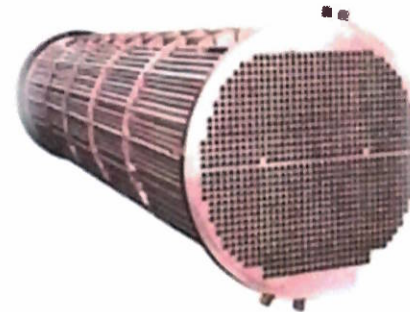
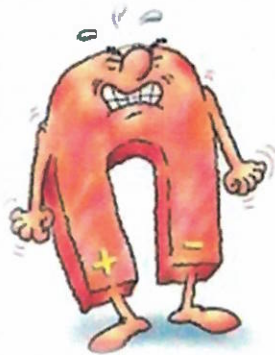
- Ferrous
 - Steel / Iron – Multiple Forms of Grading
 - **P&S:** Cut structural and plate scrap, 5 feet and under not less than 1/4 inch thick.
 - **HMS #1 and #2:** Heavy melting steel that does not meet P&S specifications
 - **Cast:** Solid moldings weighing over 150 pounds, but not more than 500 pounds
 - **Torch:** Pieces of steel which is unable to be cut and sized by mechanical means and requires the use of manual labor with a torch to size.
 - **Lite Iron:** Homogeneous iron and steel scrap magnetically separated, miscellaneous baling and sheet scrap. Average density 70 pounds per cubic foot



Understanding Scrap Material

Non-Ferrous

- Non-magnetic
 - Aluminum
 - Copper
 - Lead
 - Brass
 - Stainless – 304, 316, 410
 - Titanium



Material Valuation

- Publications
 - American Metals Market (AMM)
 - London Metal Exchange (LME)
 - Commodities Exchange (COMEX)
- Know Your Market
 - Publications Additional Outlets
 - Overseas
 - Cross Country
 - End Users
- Know your Dealer
 - Experience
 - Knowledge
 - Reporting



LONDON METAL EXCHANGE

Material Management

- Financial attributes of the Material
 - Material Preparation
 - Prepared Material
 - Unprepared Material
 - Contamination
 - Manage potential deductions
 - Dirt
 - Debris
 - Concrete
 - Manage Unacceptable Materials and or Items
 - Sealed Tanks
 - Unknown liquids
 - Oils / Fuels / Coolants
 - Hazardous Materials



Material Management Continued

Transportation

- Rail Access
- Trucking
- Roll-offs, steel-side, flatbed, etc.
- Load Weights

Processing Equipment

- Cranes
- Excavators
- Shears
- Forklifts
- Bailer



Summary

Construction Related Recycling of Metals Supports

- Local Developers
- Local Contractors
- Community Development
- Creation of Jobs
- Environmental Stewardship