

Reporting Sustainability: Zero Waste, Cradle-to-Cradle, and Life Cycle Assessment

Kentucky Chapter of Air & Waste Management Association
November 10, 2017, Stites & Harbison, Louisville, Kentucky

W. Blaine Early, III
Stites & Harbison, PLLC
250 W. Main Street, Lexington, KY
bearly@stites.com

STITES & HARBISON^{PLLC}

ATTORNEYS

Benefits of Sustainable Practices

- Internal
 - Achieve financial rewards from process, energy, and materials savings, subsidies, tax incentives
 - Satisfy corporate initiatives and requirements
 - Employee satisfaction
- External
 - Brand reputation and customer good will
 - Command higher prices
 - Positive environmental impact

Community Goals – Sustain Louisville



- Divert Solid Waste from Landfill
 - 50% by 2025
 - 90% by 2042
- Focus on Residential and Commercial Use (other than industrial)
 - food waste and composting
 - recycling

Community Goals – Maryland 2014

- Zero Waste Initiatives
 - Source reduction and reuse
 - Recycle
 - Divert organic waste
 - Target specific wastes (e.g., electronics, pharma, containers)
 - Incentives and markets
 - Waste to energy
 - State leadership
 - Educate



Zero Waste Maryland

**Maryland's Plan to Reduce, Reuse and Recycle
Nearly All Waste Generated in Maryland by 2040**

Challenges to Proving Success

Deciding what to count



Lack of common standards
(guidelines, statutes, incentives)

Risks of Uncertainty

- Making a business mistake
 - Losing money, losing customers
 - Lost capacity for incentives or rebates
- Bad internal or customer relations
 - Disappointment with outcomes
- Liability for inaccurate implementation or claims



Federal Trade Commission's *Green Guides*

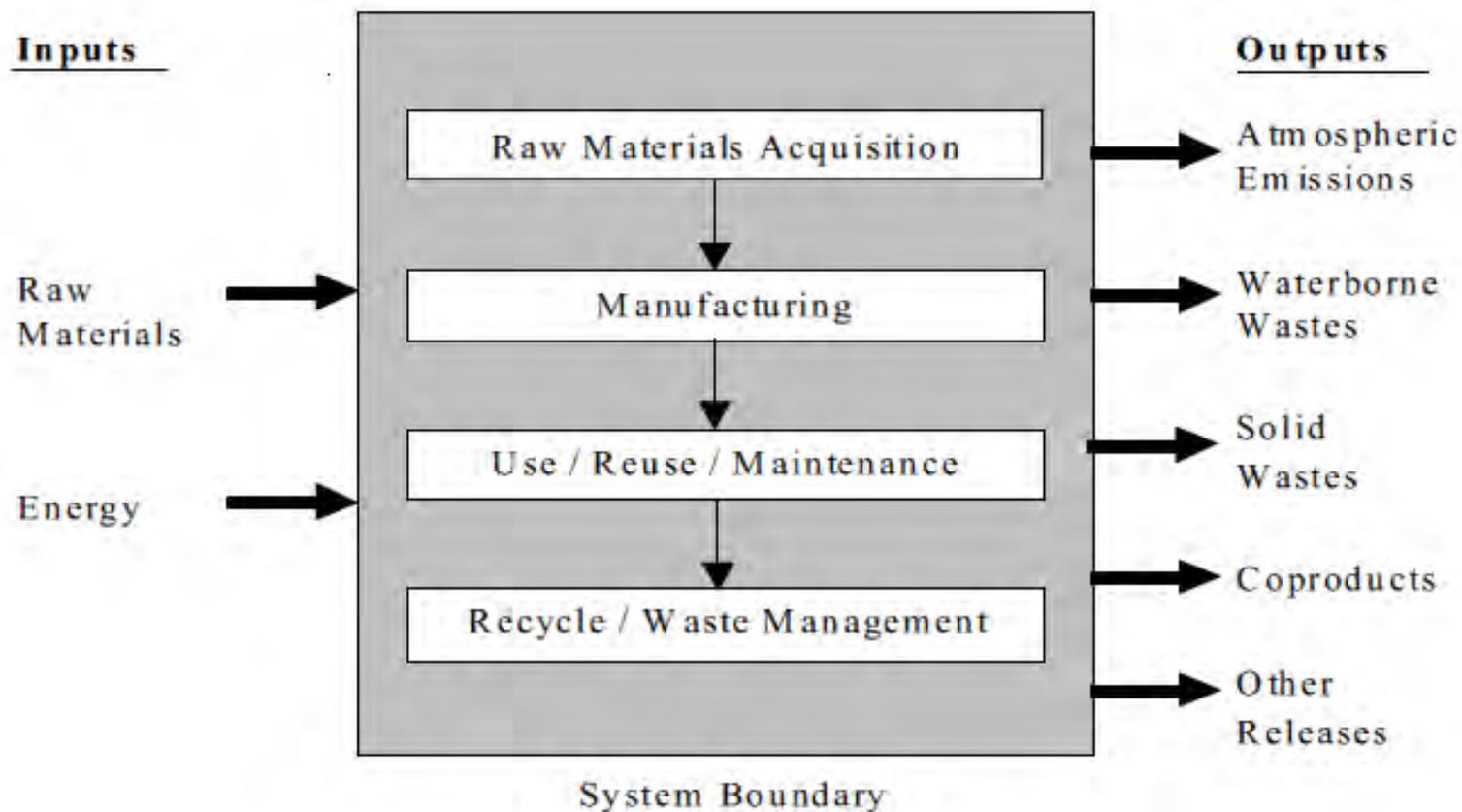
- Purpose is to avoid making environmental marketing claims that are **unfair or deceptive**
- Examples include:
 - Should not make general, unqualified statements about environmental benefit
 - Must have reliable, scientific data to substantiate factual assertions
- Third-party certification does not reduce obligation to substantiate claims

Lifecycle Assessments or LCA

“The term ‘life cycle’ refers to the major activities in the course of a product’s life-span from its manufacture, use, and maintenance to its final disposal, including the raw material acquisition to manufacture the product.”

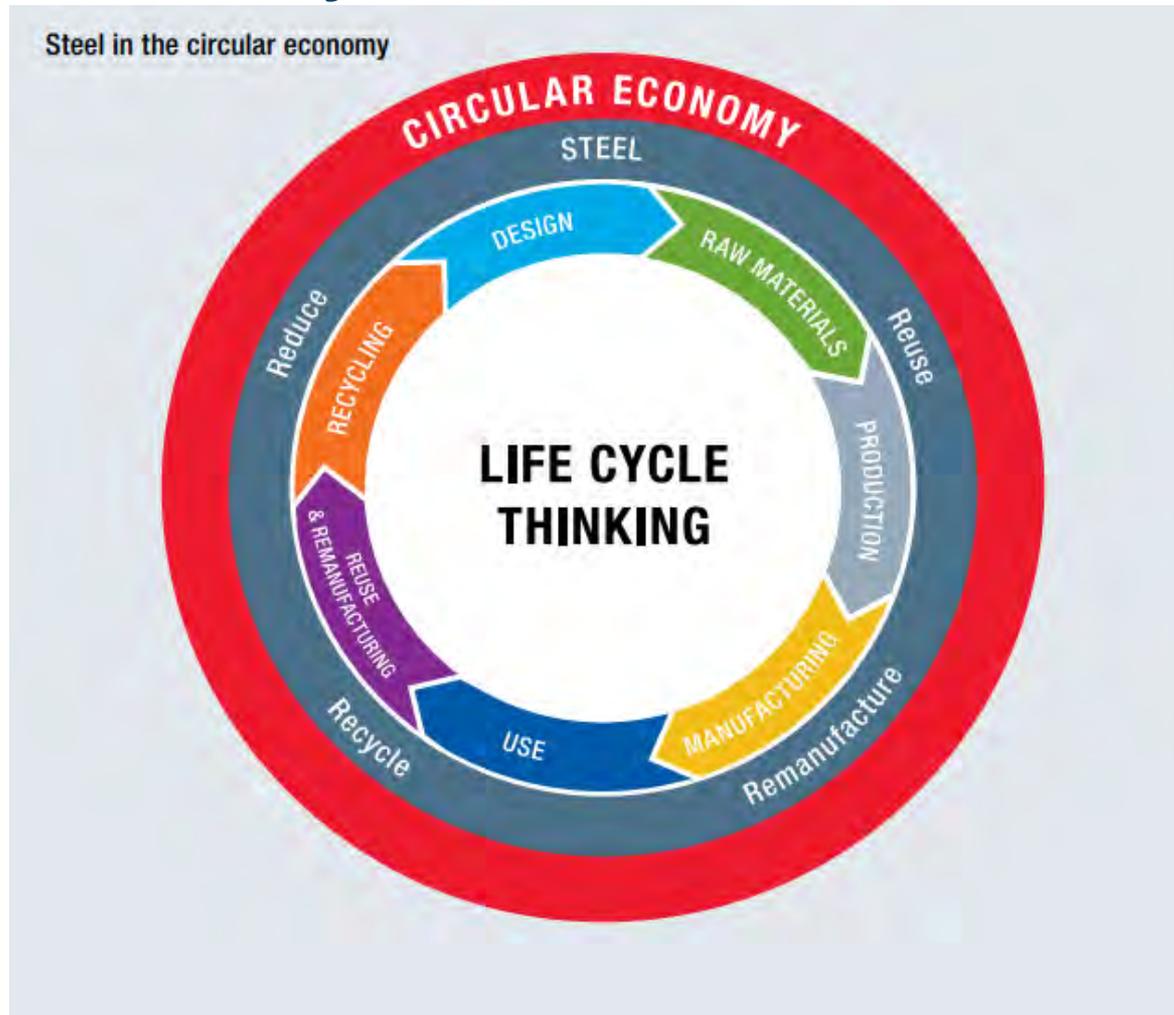
– USEPA 2006

Life Cycle Assessments or LCA



– USEPA 2006

Circular Life Cycle Assessments - Steel



Example Third-Party Reviews

- Cradle to Cradle
<http://www.c2ccertified.org/get-certified/product-certification>
- Energy Star
<https://www.energystar.gov/>
- epeat Green Electronics Council
<http://www.epeat.net/about-epeat/>
- UL
<http://industries.ul.com/environment/certification/validation-marks/environmental-claim-validation>
- U.S. Zero Waste Business Council
<https://true.gbci.org>



Cradle to Cradle



- “a beneficial design approach integrating multiple attributes: safe materials, continuous reclamation and re-use of materials, clean water, renewable energy, and social fairness.”
 - » *Cradle to Cradle Certified Product Standard, Version 3.1, page 1*
- Standards include
 - no banned list chemicals present above thresholds
 - a defined life cycle for product materials
 - self-audit to assess protection of human rights

UL Environmental Claim Validation

- UL offers three levels of waste validation.
- The validation is intended to provide third-party confirmation that the entity complies with specific guidelines
- UL's Waste Diversion Validation addresses levels of performance such as
 - Landfill Diversion Rate
 - Virtually Zero Waste to Landfill
 - Zero Waste to Landfill



Questions?