Lean and Environment

An Approach to Market, Identify, & Implement P2 Opportunities
Lean and Environment

- Expand Lean to include environmental wastes
- Start with process improvement and achieve P2 along the way
- Partners with a variety of skills/knowledge
Environmental Waste Examples

- Excess material, energy, or water use
- Use of chemicals when safer chemicals are available
- Waste management low on the waste hierarchy
How?

- Process diagram (i.e. Value Stream Map)
- Select specific area(s) to improve
- Identify solutions
- Implement solutions
Heath Tecna

- Located in Bellingham, WA
- Manufactures airplane luggage bins, galleys, and similar components
Who?

- Market and sell the project
  - Ecology engineer & facility maintenance lead
  - Impact Washington & company president
Who?

- Conduct the event
  - Facility lead & cross department team
  - Impact Washington facilitation
  - Ecology P2 technical staff
Who?

- Write Ecology project summary
  - PPRC/Ecology
What?

- Team events
  - Resource use inventory (utility bills, procurement)
  - Haz waste
  - Scrap
  - Defects

- Parallel efforts on water, energy, permit issue
Panel Example

- **Goal:** reduce chemical use & solid waste
- **Solution:** correctly size panels
- **Results:**
  - $35,000 saved annually in chemical costs
  - Solid waste volume reduced
  - Labor time reduced
Adhesive Example

- Goal: reduce hazardous waste generation
- Solution: test adhesive mixing on 3x5 card
- Results:
  - $40,000 saved annually
  - Less hazardous waste
  - Better visual check on mixing
Annual savings

- Reduced toxic chemical use by 400 lbs.
- Reduced dangerous waste by 18,000 lbs.
- Reduced solid waste by 2,000 lbs.
- Reduced water use by 3.7 million gals.
- Saved $125,000+
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