

Lean and Environment

An Approach to Market, Identify, &
Implement P2 Opportunities

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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?

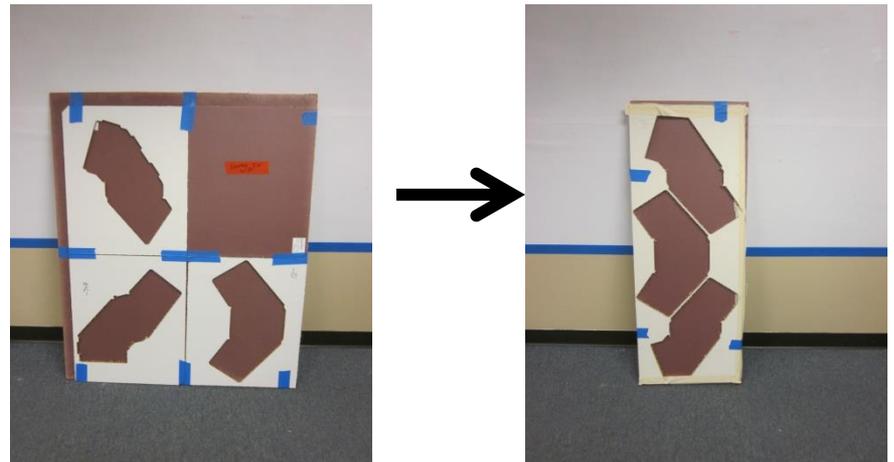
- Write Ecology project summary
 - PPRC/Ecology

What?

- Team events
 - Resource use inventory (utility bills, procurement)
 - Haz waste
 - Scrap
 - Defects
- Parallel efforts on water, energy, permit issue

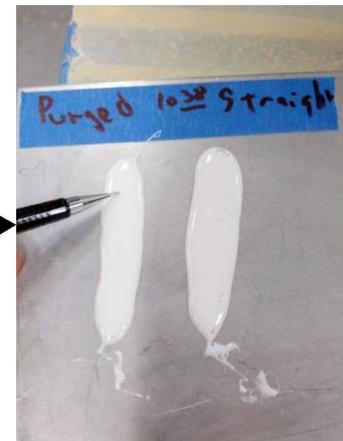
Panel Example

- 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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