



## Maine DEP Office of Innovation & Assistance & Maine MEP Lean, Energy, and Environmental Project



## Background

- Project coordinated and developed by Maine DEP Office of Innovation and Assistance and Maine MEP Management team
- Project supported and enhanced by EPA Region 1
- Invited Regional states to participate including Massachusetts and New Hampshire
- Goal of the project was to pilot the integration of environmental and energy into the Lean process mapping tools

## Objectives

- Six companies, 2 from each state participated in the pilot project
- In general each company completed an initial assessment, lean awareness training, value stream mapping and Kaizen events incorporating environmental and energy topics
- A final management report out concluded each training
- Report outs in included summarizing activities and impacts along with sustainment planning/follow up with continual improvement plan

## Project Highlights (direct)

- Value Stream Mapping (current and future state)
- Identification of non-added value steps in process
- Kaizen events

## Energy and Environmental WASTE-Current State

### ENERGY

- Compressed air leaks
- Make up air system runs excessively
- Equipment left on when not in use
- Extra handling steps in the process
- Paint booth exhaust fans run when not in use
- Heat loss during raw materials unloading
- Forklift travel

### ENVIRONMENTAL

- Aerosol cans
- Drill & tap shavings
- Hydraulic Oil
- Universal Waste

## Future State Goals/Targets

- Zero air leaks
- Compressed air system pressure set to minimum required level
- Reduce running of paint booth exhaust
- Reduce running of air make up
- Eliminate interim handling steps
- Turn off equipment when not in use (policy/training)
- Reduce aerosol can usage by at least 90%

## Kaizen plan

- Check for compressed air leaks
- Cast iron POUS storage planning
- Paint area energy savings improvements
- Aerosol reduction implementation
- Paint area energy savings improvements
- Follow through on Continual Improvement Plan action items

## Project Outcomes

- Development of Energy Audit Plans
- Development of Environmental Audit Plans
- Incorporation of Environmental and Energy into Health and Safety Training events and newsletters
- Planning future Kaizen events
- Follow up on Continual Improvement Plan

## Environmental & Energy Lean Team



## Project Highlights & Observations

- Increased communication within the company Lean team
- Increased respect and understanding of roles within the company
- Cross training opportunities identified
- Parking Lot Items (great ideas and follow up items)  
e.g. forming an environmental team, newsletters, signage

## Overall Project Summary

- Energy Savings of \$625,000/year
- Environmental Savings of \$34,000/year
- Lean Savings of \$750,000/year
- Total impact savings of \$1.4 Million
- MEP and DEP partnership established including staff cross training
- Future training identified (MEDEP to present at MEP staff training event)
- Further work with companies on continual improvement plan including utilizing the SBCIP

## Questions?

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