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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