Waste Reduction
Value Engineering

Good Afternoon!
Welcome!

Agenda:

1. **LEAN** as the launching pad of VALUE/ENGINEERING and WASTE REDUCTION.
   1. Discuss necessity to change our organizations, (DMF)
2. Compare LEAN vs: non-lean companies.
   1. What is, and how to recognize Value added/Non-value-added. (Become waste detectives within your organizations)!
3. Discuss 7 Wastes
4. Define VALUE ENGINEERING (How to implement).
   1. Show slides on yearly cost savings at Bradington-Young as examples of what lies beneath our feet.
   2. Frames, fabric/leather, cushion/poly, cartoning, other raw materials. $$$$$$$!
What is LEAN?

Producing just what the customer needs,
when the customer needs it,
in the amount needed by the customer,
with the minimum materials,
equipment, labor and space

Key Issues For YOUR Company’s Competitiveness

☑️ Quality
☑️ Cost
☑️ Delivery

“Time is the single best indicator of competitiveness”
Quality and Time

Focus on reducing the elapsed time

- between when the error occurs and when the error is detected
- between when the error is detected and when the corrective action is taken

Eliminate the root causes—do not do rework!!!

Cost and Time

Traditional manufacturing (batch and queue)

Time-based Manufacturing

Total cost decreases with lead time reduction!
**Value-Adding vs. Non-Value-Adding Activities**

- **Value-Adding Activities are**
  those activities which directly transform raw material or information to meet customer requirements

- **Non-Value-Adding Activities are**
  those activities which consume time, resources or space, but do not directly contribute to the value of the product

**Total Business Leadtime**

- Traditional manufacturer
- Initiation of LEAN
- Gain experience & begin BP events
- Time-based competitor & expert LEAN practitioner

**Taking out the time** → **Waste elimination**
Manufacturing Lead Time

Typical company

Value-Adding Activities (VA)

Non-Value-Adding Activities

Original lead time

Minor Improvement

Major Improvement

Seven Types of Wastes

Defects

Waiting

Over-Production

Transportation

Inventory

Processing

Motion

W A S T E
Common Causes of Waste

- Layout (distance)
- Long set-up time
- Large batch sizes
- Incapable processes
- Poor maintenance
- Inconsistent work methods
- Lack of training
- Lack of adherence
- Inconsistent performance measures
- Ineffective production planning
- Lack of workplace organization
- Unclear quality requirements

Value Engineering

Value Engineering is defined as a systematic method to improve the “value” of goods and services by examining the process. Value, as defined, is the ratio of function/process to cost. Value can be increased by improving the process or reducing the cost.
Value Engineering Approach

• Determine “Low-hanging-fruit” opportunities:
  - Frames/cushioning/fab/leather/fiber/other materials
• Select a CHAMPION???
• SET GOALS!!!
• Develop Action Plan
  - Notify and meet with all vendors
  - Special instructions as to *What, Why, and WIIFM, (What’s in it for me)*
  - Request a meeting with them bringing in ALL products.
  - Suggest true Vendor Partnership,........ LATER
• Select products based on Quality, Cost, and Delivery.
  - Build samples for sales/marketing approval

• MEASURE! MEASURE! MEASURE!!

VALUE ENGINEERING RESULTS

(Bradington-Young)

• Fiber savings-------------$19,254
• Frame savings (CNC)---$302,549, (39.1%)
• Leather savings---------$129,157
• Tub chair savings-------$464
• Other, (EXPLAIN)--------$468,862

**TOTAL SAVINGS---------- $920,286!!**
Wrap up

1. Become LEAN in plants and offices!!!!
2. Learn to be Waste Detectives!!!
   1. Determine value-added & non-value added.
3. Teach staff to be waste detectives
4. GOAL SETTING NECESSARY!! (Waste reduction & Value Engineering).
5. Follow through! REMEMBER: Sustained efforts pay off!
6. Have monthly meetings to track successes! (Graphs)

Questions???
(Handouts)

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