

Todd Nadler CFPIM, CSCP, CSSBB February 11<sup>th</sup> 2015



- In Lean Thinking, Womack & Jones stated that mura (unevenness or variability) creates muri (overburdening) which makes muda (waste) difficult to attack and permanently eliminate
- The core focus of Six Sigma is achieving stable and predictable process results (reducing process variation)
- Standard work is perhaps the key component in attacking process variation to enable and sustain Lean, Six Sigma, or any type of operational excellence
- Despite the above, very few organizations fully embrace or appreciate the critical role standard work plays





- What is standard work
- Why is it important
- Common roadblocks
- Implementation tips





- Standard work is a method of capturing the best way to perform a process and performing to that standard. It is the foundation of operational stability and excellence.
- Standard work has grown beyond Lean and the traditional Toyota elements (production rate, work sequence, in-process stock) and is now a more universal term.
- "Best" means most efficient, safest, and easiest
- It's very hard to improve what isn't standardized





- Standard work is not static it changes constantly as processes are improved. It should also be as flexible as the process dictates.
- Standard work can be very visual, using pictures or diagrams in place of words. It is often displayed conspicuously in the work area.
- The level of specificity and format of standard work should fit the process and goals.
  Standard work can range from a procedure to specific work instructions, from a multi-page document to a simple checklist.





- Elements of standard work may include
  - Detailed process step or "Best practices"
    - Who does what
    - When is it done
    - Where is it done
    - How is it done
    - Why is it done
  - Rate of output
  - Inventory/WIP levels
  - Number of employees
  - Pictures
  - Diagrams





- Elements of standard work may include
  - Contingencies
    - Multiple levels of output
    - Problems
    - Triggering of events





 The example below details the daily preventative maintenance process on a piece of machinery. Notice the visual controls – both in the standard work and in the labeling of the equipment.

### **Daily Operator PM Checklist** 1. Check coolant level through clear Plexiglas 2. Check heat exchanger fans (strings should be moving) 3. Check servo drive fans (string should be moving) 4. Check heat exchanger air filter (change when dark) 5. Check servo drive air filter (change when dark) 6. Check way lube reservoir (add when low) 7. Check main motor air filter (change when dark) 8. Check main motor cooling fan (string should move) 9. Check mist collector motor and air filter (change when dark) 11 10. Check bar feeder hydraulic motor air filter 11. Check bar feeder hydraulic oil level (add when low)



# Why is Standard Work Important?

- Adds certainty to a process by defining the who, what, when, where, why, and how
- Reduces employee-introduced variability in processes
- Eliminates waste
- Can simplify scheduling and management of resources
- Provides a baseline for continuous improvement activity





# Why is Standard Work Important?

- Increases the productivity of supervisors, managers, mentor employees
- Facilitates problem-solving by controlling the number of variables in the way a process is performed
- Preserves organizational expertise
- Provides a basis for training





### **Common Roadblocks to Standard Work Success**

- Lack of commitment
- Too difficult to create/maintain
- Business not suitable for standard work
- Workforce not capable
- Dictated, not collaborative
- Lack of buy-in
- Not realistic (too specific or demanding)
- Not meaningful/complete
- Not managed to





# **Standard Work Implementation Tips**

- Assess your processes, understand your weaknesses, focus there first
- Fit the type of standard work to the process
- Start general first, become more specific as needed
- Involve the workforce where possible, while keeping sight of the big picture
- Articulate why the process is being standardized in the way it is
- Manage to the standard work
- Treat standard work with the importance it deserves





- What is standard work
- Why is it important
- Common roadblocks
- Implementation tips
- Questions

