

CITEC

Manufacturing & Technology Solutions

TOTAL PRODUCTIVE MAINTENANCE AGENDA

Day 1:

1. TPM Presentation (about 2 hours on the agenda; show & tell walk through of the slides)
2. Manufacturing Losses Chart (about .5 hour on the agenda; review losses, ask if they've got data on each loss, ask them to review it if so)
3. TPM 5 Pillars chart (about 1 hour on the agenda; review each of the pillars, along with the detail description of each...in separate word files).

Exercise #1 (about 1.5 hours on the agenda):

4. Handout Smokey's BBQ case and review (word file explaining situation and powerpoint file showing layout and work elements).
5. Split the group up into 5 subgroups, assign one TPM pillar to each subgroup, ask them to create the appropriate TPM action for Smokey's BBQ for their particular pillar. When finished, ask them to come back and review with the main group.

Exercise #2 (about 1.5 hours on the agenda):

6. Split the main group up into the 4 manufacturing cells (they have 4 discrete cells in their one value stream), and ask them to go out into the cells and list all of the equipment used there (all of it, each and every piece, no matter how large or small).
7. Ask them to identify the Uptime U/T (or reliability) of each piece.
8. Have them review their lists with the main group.

End of Day 1

Day 2:

Exercise#3 (about 3 hours on the agenda):

9. Apply the 5 pillars to each cell - the equipment in each cell - in the value stream
10. Come up with recommendations for each pillar, specifically 1, 2 or 3 items that need to be addressed in the next 90 days.
11. Present New Roles in Manufacturing (about 1 hour on the agenda):
 - a) Owner-Operator (formerly just an operator, one who "punches buttons and runs the equipment")
 - b) Maintainer-Improver (formerly just a mechanic, one who "turns wrenches")
 - c) Innovator-Engineer (formerly just an engineer, one who "solves problems")
12. Present Reliability-Based Maintenance (about 1 hour on the agenda):
 - a) Reactive Maintenance (run to failure, and fix... typically 60% of the maintenance budget today...should be 10% max)
 - b) Preventive Maintenance (time-based replacement of parts... typically 35% of maint budget today...should be 20% max)
 - c) Predictive Maintenance (condition-based monitoring of process...typically 0% of maint budget today...should be 50%)
 - d) Proactive Maintenance (design-based maintenance engineering...typically 5% of main budget today...should be 20%)

Exercise #4 (about .5 hour on the agenda):

13. Discuss shifts in maintenance required to become Reliability-Based (vs. Repair-Based).
14. Present Typical Roles in TPM (Operators roles/responsibilities, etc with Pumps, Valves, and Field Instruments).

Exercise #5 (about 1 hour on the agenda):

15. Again working in cells, ask them to describe TPM Pillar #2 (Autonomous Maintenance) Owner-Operator responsibilities for the equipment in their cells.
16. Have them review with the main group.

Exercise #6 (about .5 hour on the agenda):

17. For the value stream, again working in the 5 Pillars groups, ask them to list action items (90-day Kaizens) that should/must be done to get a comprehensive TPM program underway in this Value Stream. Note: they might conclude that TPM needs to be a site-wide effort. That's probably correct, but they still need to focus on this value stream and get started here (caution them not to wait for the site to "get religion" on TPM....you need it now!).
18. Summarize TPM.

End of Day 2