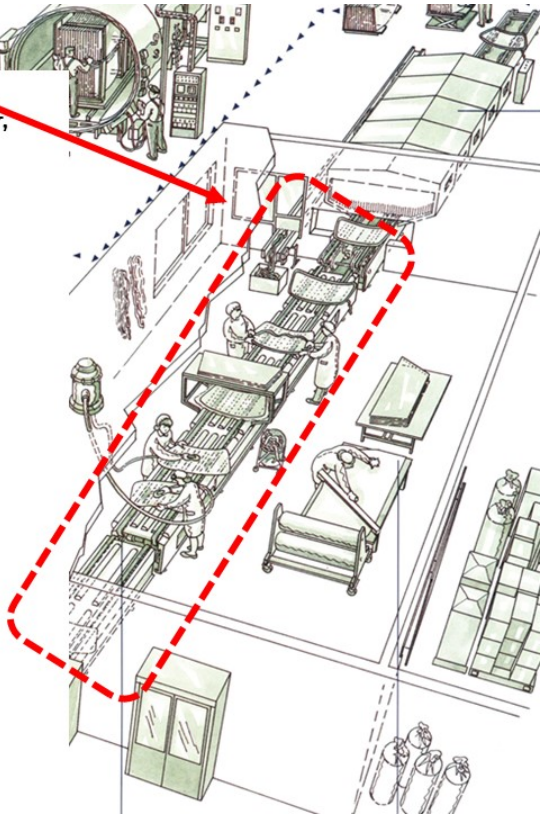
Tool-Box Talk

Preventive Maintenance 103

PM Optimization - "A Process used to optimize preventive maintenance (PM) tasks and frequencies to reduce or mitigate likely failure modes by utilizing tools/techniques such as FMEA, RCM, and Failure Modes Mapping resulting in increase equipment uptime and reduction of cost"

PM Optimization Process

1. Identify which asset or functional area the PM Optimization will be executed
2. Identify a cross functional team (Operator, Maintenance Tech, Reliability Engineer, Maintenance Planner)
3. Establish expectations from everyone engaged in this process
4. Define end goal of this process (ex: Increased PMs Effectiveness, Decrease breakdowns
5. Define how you will measure if the PM Optimization Process is effective or not
6. Present copies of PMs to team, one PM at a time
7. Review equipment history for the past 30, 60, and 180 days
   - # of breakdowns
   - Causes of critical breakdowns based on a formal RCA
   - PM Labor Hours vs EM/Urgent Labor Hours
8. Identify by the following for each task on a PM Procedure/Procedures



PM Evaluation / Optimization Results

PM Eval Recommendation	# of Tasks	% of Total Tasks	Labor Hrs. Represented
No Value – Delete Task	1,740	15.2%	1,832
Reassign to Lube Route	1,167	10.0%	3,980
Reassign to Operator Care	1,889	16.1%	4,987
Replace with PdM	1,983	17.3%	4,876
Re-Write Task	2,387	20.8%	11,043
Task is Good as Found	2,289	20%	3,923
Total PM Tasks	11,455	100%	30,641

Outcomes of PM Optimization

- Increase in Asset Availability
- Increase in Production Throughput
- Increase in OEE
- Maintenance Labor Hours freed up to perform other work which is needed
- Reduction in Total Maintenance Cost
- Reduction is outside Contractors

Measure the Outcome of the PM Optimization Process with PM KPIs

Preventive Maintenance Leading and Lagging KPIs