PRESENTED BY
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PARTNERSHIP WITH
THE MAINTENANCE COMMUNITY BY UPKEEP

14 STEPS OF A PREVENTIVE MAINTENANCE OPTIMIZATION PROCESS (PMO)

BY RICKY SMITH CMRP

Step 1: Establish a baseline using current metrics or data from maintenance and production/operations.

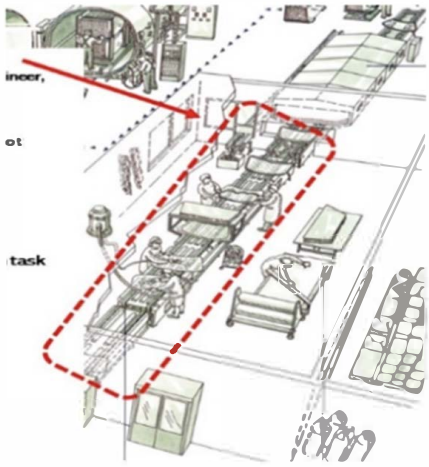
Reliability Dashboard by Asset – Gypsy Paper

Board Line

2019

Line Assets	# of Failures	Production Losses	EM/Urgent Labor Hrs.	PM Compliance
Board Infeed	127	1123	346	100%
Conveyor	21	489	469	100%
Press Unit	2	2312	18	98%
Hydraulics	47	324	110	95%
PLC / DCS	8	978	943	100%
DocArm Lift	64	1934	86	98%
Total	269	7160	1,999	99.8%

Step 2: Identify which asset/functional area the PM Optimization will be executed.



Step 3: Identifying a cross-functional team (Operator. 2 Maintenance Tech, Reliability Engineer. Maintenance Planner. etc.).

Step 4: Establish expectations from everyone engaged in this process.

Step 5: Define the end goal of this process.

Step 6: Define roles and responsibilities for all members of the PMO Team.

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

Step 7: Define how you'll measure if the PM Optimization process has been effective or not.

Step 8: Present copies of PMs to all parties.

WO # 12033	Asset # 12332 – Line 1
Job Description: Lubricate Bearings	

Personal Protective Equipment Required: Gloves, hearing protection

Mobile Special Equipment: None

Required Departmental Coordination: Production Lead will be notified before execution of Lubrication

ID	Description	Craft Type	# of Crafts	Craft Hours	Initial Steps
1	Ask Operator if any issues with asset	M	1	.2	KL
2	Inspect asset for any leaks or abnormalities	M	1	.2	KL
3	Clean grease fitting with lint free rag	M	1	.1	KL
4	Insert grease into 4 "Zerk fittings" (2 Pumps per fitting)	M	1	.1	KL
5	Notify Production work is complete	M	1	.1	KL
6	Complete Work Order	M	1	.1	KL
	Total Hours			1	KL

Step 9: Review equipment history for the past 30. 60. and 180 days. This includes:

- **Root Causes of critical breakdowns**
- **PM Labor Hours vs. EM/Urgent Labor Hours.**
- **PM Compliance vs OEE**
- **Rework**

14 STEPS OF A PMO PROCESS

Join Ricky live or virtual (Internet) for ...

Step 10: Review current PMs and PdMs for these reasons:

- **PM procedure may need to be rewritten**
- **Training may be required**
- **PM frequency may be inaccurate and need adjustment**
- **Checking if equipment is in "maintainable condition"**

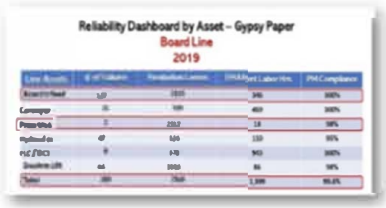
Step 11: Rewrite PMs or write new PMs

Step 12: Monitor and measure to ensure new PMs are effective and adjust as needed.

Step 13: Post results for all to see.

Reliability Dashboard by Asset – Gypsy Paper
Board Line
Currently for 2020

Line Assets	# Failures	Production Losses	EM/Urgent Labor Hrs.	PM Compliance Using 10% Rule
Board Infeed	12	32	47	100%
Press Unit	0	0	14	100%
Total	12	31	61	100%



Step 14: Once concept has been proven move to the next asset/area.