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**PARTNERSHIP WITH**  
THE MAINTENANCE  
COMMUNITY BY UPKEEP

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# **14 STEPS OF A PREVENTIVE MAINTENANCE OPTIMIZATION PROCESS (PMO)**

**BY RICKY SMITH CMRP**



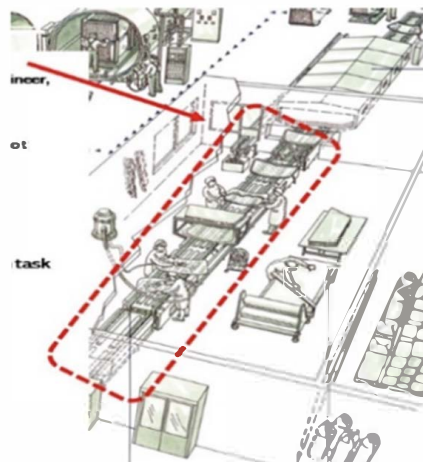
# 14 STEPS OF A PMO PROCESS

**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%
<b>Total</b>	<b>269</b>	<b>7160</b>	<b>1,999</b>	<b>99.8%</b>

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



# 14 STEPS OF A PMO PROCESS

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**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
<b>Total PM Tasks</b>	<b>11,455</b>	<b>100%</b>	<b>30,641</b>

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

# 14 STEPS OF A PMO PROCESS

**Step 8: Present copies of PMs to all parties.**

WO # 12333		Asset # 12332 -- Line 1			
Job Description: Lubricate Bearings					
Priority: <input type="checkbox"/> Priority <input type="checkbox"/> Normal					
Estimated Cost Hours: 1 x 1.0		Quantity: 1			
Component	Est. cost	Original Cost	Est. % / Asset		
Grease	100.00	100.00	1		
Assembly	100.00	100.00	1		
Equipment	100.00	100.00	1		
Condition: <b>Failure to follow PM instructions could result in equipment failure.</b>					
Personal Protective Equipment Required: Gloves, hearing protection					
Part #	Part Description	Quantity	Description		
C-1234	Grease, Lith	1	100.00		
Instructions: <b>None</b>					
Last Prev Years					
Special Tools/Equip. Req.:					
Grease Pump (Grease Gun - Type 287 (Dynamic Grease Gun))					
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	Inject 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

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

# 14 STEPS OF A PMO PROCESS

Preventive Maintenance Best Practices  
plus, PM Optimization Workshop

March 9-11, 2021

Virtual (Zoom-Internet)

Live at Southern Wesleyan University, Central, SC

For more information send request to:  
[rsmith@worldclassmaintenance.org](mailto:rsmith@worldclassmaintenance.org)

**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%

Reliability Dashboard by Asset – Gypsy Paper  
Board Line  
2019

Line Assets	# of Failures	Production Losses	EM/Urgent Labor Hrs.	PM Compliance
Board Infeed	12	32	47	100%
Press Unit	0	0	14	100%
Equipment	0	0	0	100%
Roll Feed	0	0	0	100%
Roller Unit	0	0	0	100%
Total	12	32	61	100%

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