SMC REPAIRS & MAINTENANCE

SAN MIGUEL CORPORATION

To : **MV Aballe /JR Dacalano** **January 13, 2023**

Thru : **RB Nazareno**

From : **JRH Marquez/ IT Salenga, Jr.**

Subject: **SMC RMI Key Performance Metrics, Projects and Activities.**

Submitting for your appreciation a compilation of Key Performance Indicators (January-December, 2022) as agreed and stipulated in our maintenance agreement, as follows:

Key Performance Indicators				
Plant	Bukidnon	Sta. Cruz	Sta. Cruz 2	Tagoloan
Total Work Order Notification	5,319	9,417	509	15,580
Total Work Order Completed	5,319	9,416	509	14,145
Work Order Completion **(>90.0%)**	100.00%	99.99%	100.00%	90.79%
Total Number of Reworks	0	0	0	4
Rework **(<3.0%)**	0	0	0	0.03%

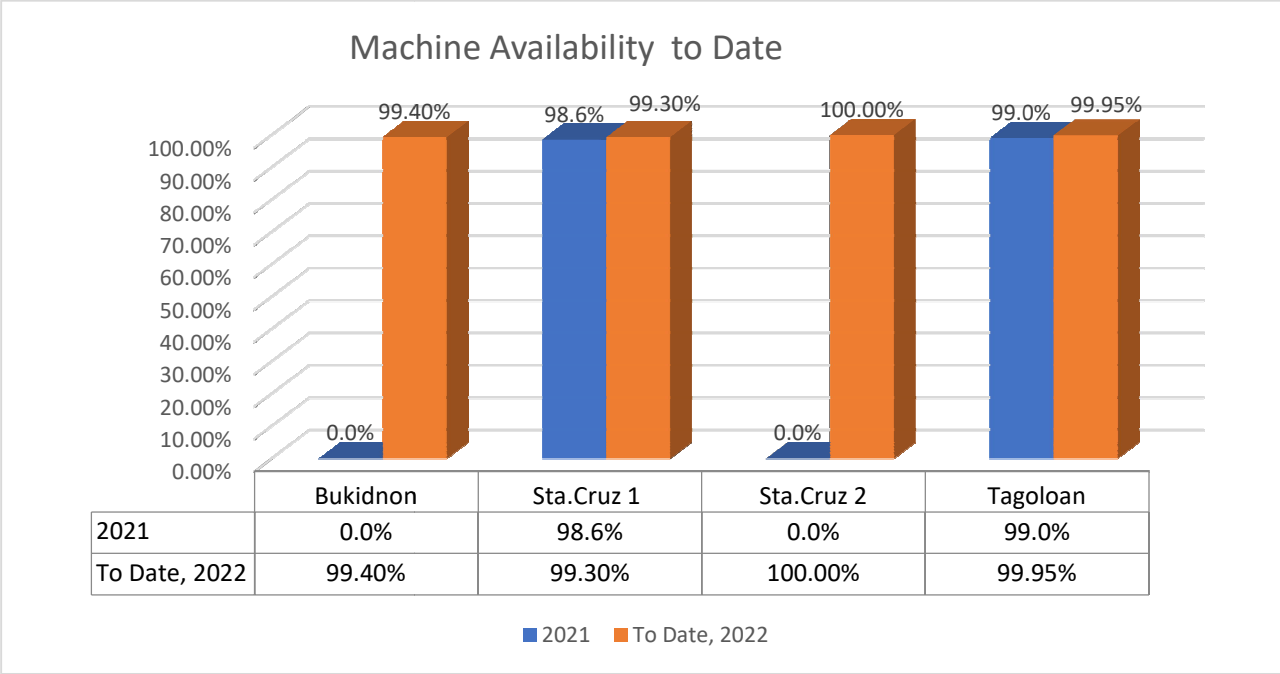
To further evaluate the performance of SMC RMI in maintaining SMFI plants, details of parameters of KPI are as follows, Machine Availability, Mean Time Between Failure (MTBF) and Mean Time to Repair (MTTR). Also Included in this report are the maintenance and fabrication activities accomplished December, 2022.

I. Machine Availability

Machine Availability - is the percent of the time that the equipment is available for use (Run Time), divided by the planned production time. The equipment downtime is computed when production output becomes affected.

Plant	2021	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	To Date, 2022
Bukidnon	-	99.0%	98.0%	99.2%	99.7%	99.1%	99.2%	99.7%	99.1%	99.9%	100.0%	99.80%	100.00%	99.40%
Sta.Cruz 1	98.6%	99.6%	98.8%	97.0%	99.0%	99.0%	99.2%	100.0%	99.5%	99.9%	99.96%	100.0%	99.8%	99.30%
Sta.Cruz 2	-	-	-	-	-	-	-	-	-	100.0%	100.0%	100.0%	100.0%	100.00%
Tagoloan	99.0%	100.0%	100.0%	100.0%	99.7%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.7%	100.0%	99.95%

Together, we grow!



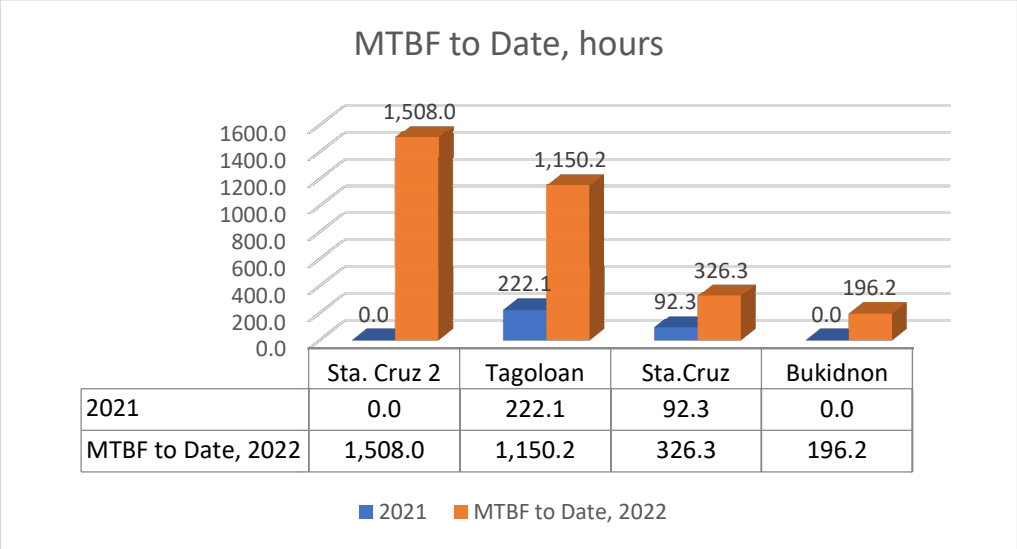
	Bukidnon	Sta.Cruz 1	Sta.Cruz 2	Tagoloan
2021	0.0%	98.6%	0.0%	99.0%
To Date, 2022	99.40%	99.30%	100.00%	99.95%

*Period is from January - December, 2022.

To date, Sta. Cruz 2 plant got 100.00% machine availability, followed by Tagoloan at 99.95%, followed by Bukidnon at 99.40% while Sta. Cruz 1 is at 99.30%.

II. Mean Time Between Failure (MTBF)

Mean Time Between Failure (MTBF) - is the elapsed time between all inherent failures of equipment during normal system operation. It is computed by dividing Run Time to the total Number of Equipment Failures (affecting production).



Plant	2021	2022 Target	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	MTBF to Date, 2022
Bukidnon	-	40.0	118.8	73.3	212.7	158.5	102.6	172.7	363.4	138.0	587.2	644.0	639.0	605.0	196.2
Sta. Cruz 2	92.3	122.8	693.0	300.0	120.3	229.6	368.1	172.6	696.0	322.5	349.5	695.8	660.0	631.0	326.3
Sta. Cruz	-	-	-	-	-	-	-	-	-	-	240.0	56.0	576.0	636.0	1,508.00
Tagoloan	222.1	295.4	348.0	600.0	672.0	336.9	700.0	696.0	696.0	652.0	695.8	652.0	669.9	648.0	1,150.20

*Period is from January - December, 2022.

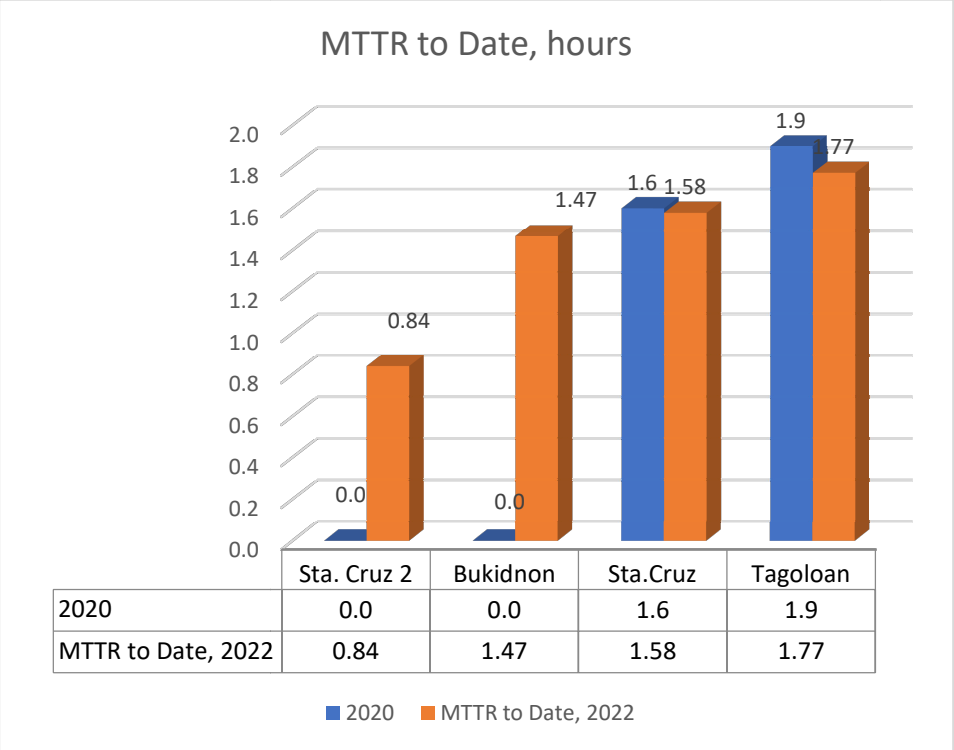
To date, the plant with longest time before a machine failed was Sta. Cruz 2 at 1,508.0 hours, followed by Tagoloan with 1,150.2 hours and Sta. Cruz at 326.3 hours, while Bukidnon got the lowest at 196.2 hours.

Machine Downtime (Affecting Production) for the Month of December

Sta. Cruz (Affecting Production)							Spare Details	
Equipment	Section	Description	Downtime, Hours	Frequency	Total Downtime, Hours	Total Frequency	Remarks	Spare Part
Boiler	Utilities	Worn-out swing chute guillotine cable	1.00	1	1.00	1	-	-

III. Mean Time To Repair (MTTR)

Mean Time To Repair (MTTR) - Mean Time To Repair MTTR is a measure of the maintainability of machines and effectiveness of the repair and maintenance system. It is a maintenance metric that measures the average time required to troubleshoot and complete repair a failed equipment. It is computed by dividing the Repair Duration to the Number of Equipment Completed Repairs.



	Sta. Cruz 2	Bukidnon	Sta.Cruz	Tagoloan
2020	0.0	0.0	1.6	1.9
MTTR to Date, 2022	0.84	1.47	1.58	1.77

Plant	2021	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	MTTR to Date, 2022
Bukidnon	-	2.0	1.4	1.6	1.4	1.1	2.0	0.6	1.6	1.3	0.0	0.9	0	1.47
Sta. Cruz	1.7	2.1	1.7	1.9	3.0	2.7	2.4	1.5	1.0	1.2	1.1	1.2	1.3	1.58
Sta. Cruz 2	-	-	-	-	-	-	-	-	-	0.0	0.0	0.8	0.9	0.84
Tagoloan	2.0	1.2	1.7	3.6	2.9	2.3	2.0	2.1	1.4	0.8	0.5	0.9	10.4	1.77

*Period is from January - December, 2022.

The plant with shortest repair time is Sta. Cruz 2 at 0.84 hour, followed by Bukidnon at 1.47 hours, and Sta. Cruz 1 at 1.58 hours, while Tagoloan got the longest hour at 1.77 hours.

SAP Preventive Maintenance Update for December

DECEMBER			
	STA. CRUZ	STA. CRUZ 2	TAGOLOAN
TOTAL OUTSTANDING WO	460	210	1006
TOTAL COMPLETED WO (SMCRMI)	460	210	758
% COMPLETED WO (SMCRMI)	100.00%	100.00%	75.35%
TOTAL COMPLETED WO	460	210	0
% COMPLETED WO	100.00%	100.00%	0.00%

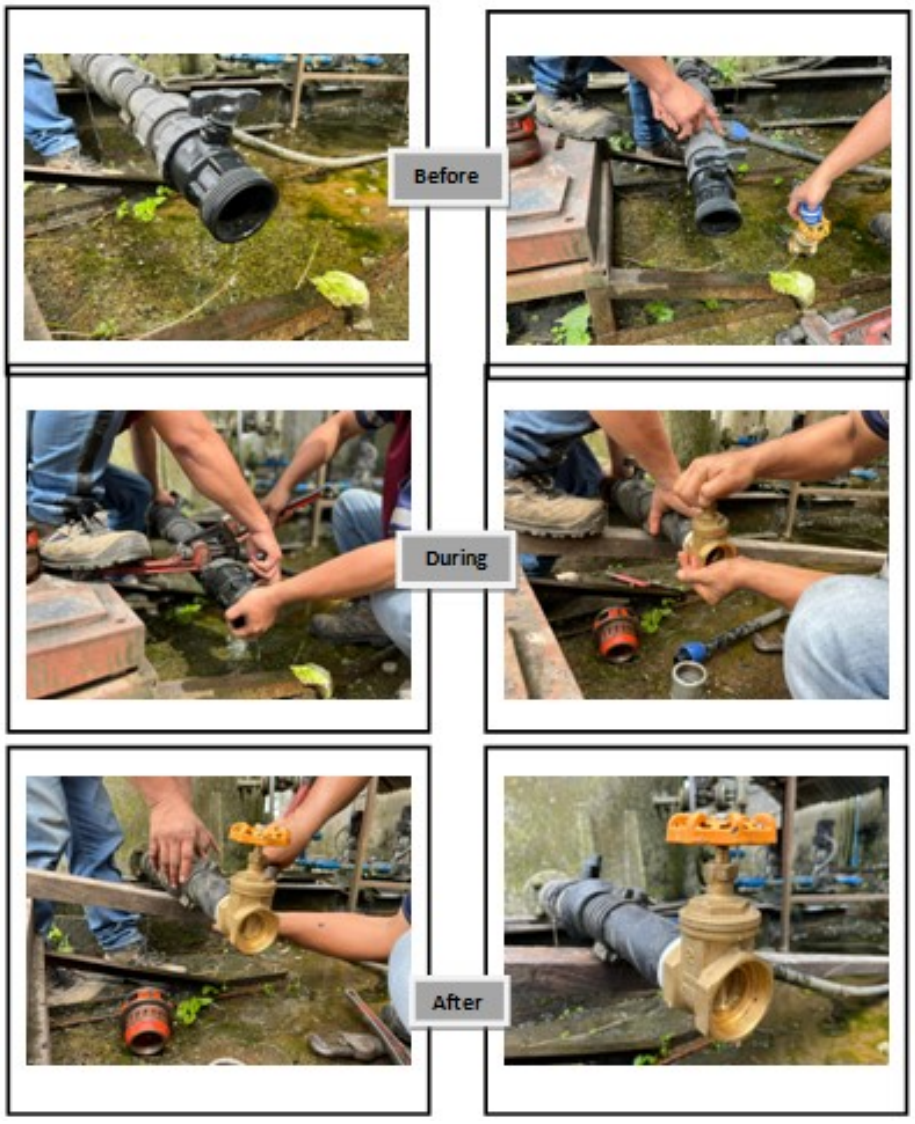
Sta. Cruz towers 1 and 2 achieved 100.0% SAP PM Completion rate while Tagoloan is at 75.35%. Unaccomplished work orders for Tagoloan were due to continuous plant operations.

PROJECTS AND ACTIVITIES

December 2022

I. BUKIDNON

1. Replacement of gate valve from water raw tank.

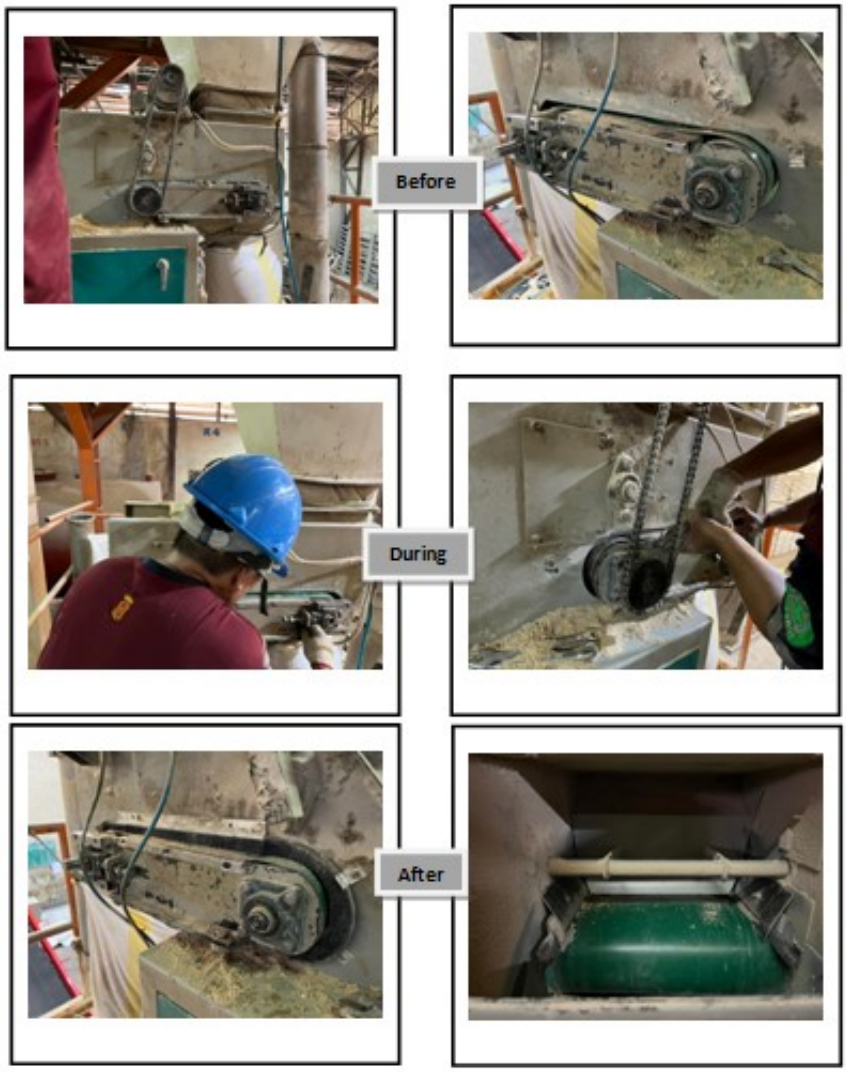


To prevent leaks.

2. Inspection of air compressor due to leaking.

To ensure good working condition.

3. Replacement of auto-bagging endless belt.



To ensure good working condition.

II. STA. CRUZ

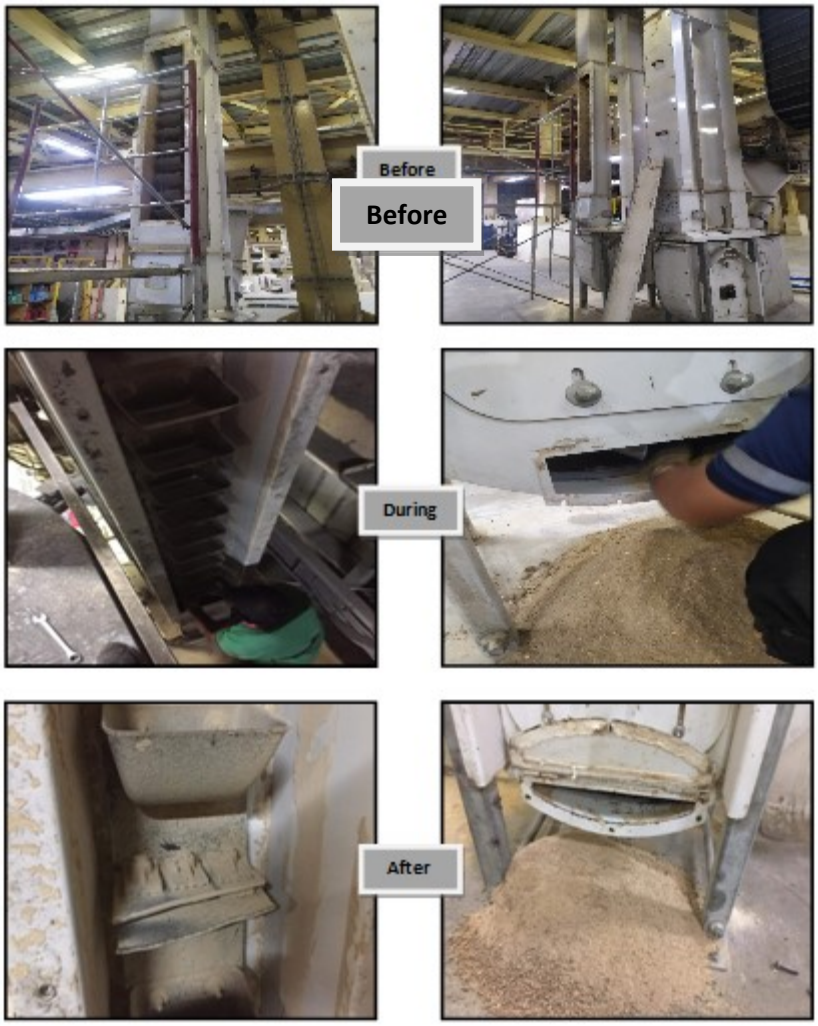
1. Tightening of bolt at MCC and DPBS/DPHD pellet mill motor.

To prevent loose contact during operations.

2. Inspection and servicing of MGEL bucket elevators.

DGM line bucket elevator:

Pelleting line bucket elevator:



To ensure good working condition.

3. Inspection and removal of twines at RFKG trough chain conveyor at bag intake line 3-5.

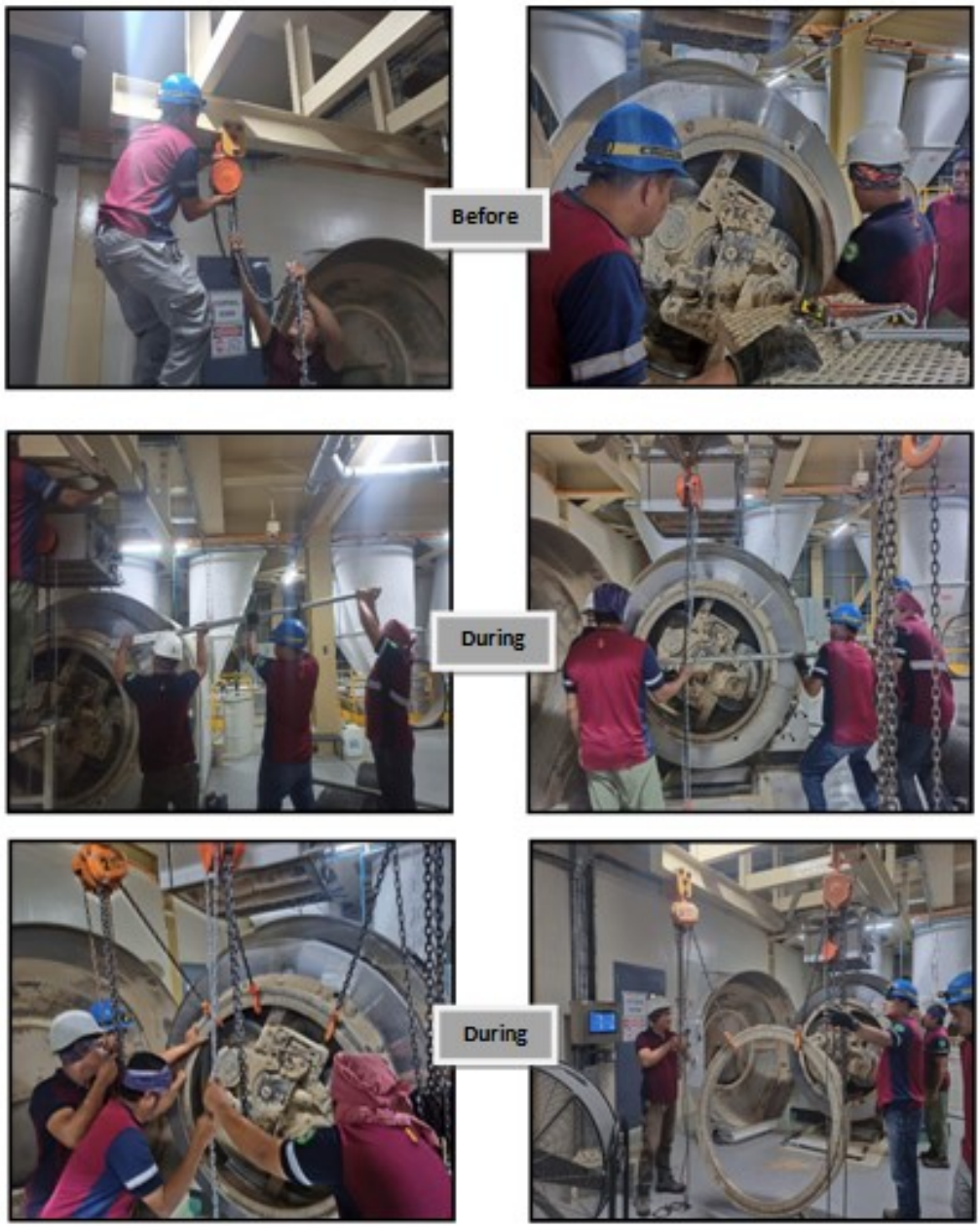
To prevent clogging during operations.

III. STA. CRUZ II

1. Hauling of DPEF Press roll from ground floor to 3rd floor production tower

This was done during the Scheduled Shutdown Due to Full FG warehouse. SMCRMI Lifted 2 Pcs DPEF Pellet Mill Press roll from ground floor to 3rd floor as per preparation for replacement.

2. Replacement and installation of DPEF press roll.




During
During
During

To ensure good working condition.

IV. TAGOLOAN

1. Fabrication of RM slider for silo chain conveyor material transfer.

Production will use this slider to transport materials faster from silo chain conveyor.

2. Fabrication of tower 2 wire cover.

The wire cover will serve as addition layer of protection for the group of electrical wires in tower 2 premix area.