

Improvement Activity @ Sugar Australia!



At Sugar Australia's Croydon site in Victoria, they continue to develop and unleash the full potential of all their employees by completing their 6th cycle of **TPM & Lean (TPM³)** improvement activities.

Following CTPM's improvement cycle model of once per week 1 to 2 hour team meeting plus activity time for a 12 week period, the Croydon site continue to make inroads to changing the improvement culture of their workplace.

Cycle 6 saw two teams formed on the Packing Lines with a focus on *Work Area Management* (WAM) to help improve safety, productivity and morale by establishing "a place for everything and everything in its place". A third team was formed on the Stick Machines which focused on *Micro Focused Equipment & Process Improvement* (FE&PI) to look at addressing the difficulties of running two Stick Machines with one person (operator).

Bags, Sacks & Sticks! Work Area Management

The day shift team (named "Armageddon") covered the Retail and Industrial Lines, plus the Robot Palletiser work areas. This left the Stick Machines work area for the afternoon shift (named "Stick This!").

Although the Packing Room is relatively small, the two teams identified a total of 40 improvement projects approved by both shifts and the Site Leadership Team. Half of the projects were implemented by the end of the cycle, with the remaining improvements still in progress or waiting for capital expenditure approval (e.g. building services works).

Figure 1 – Day shift "Armageddon" WAM Team



From L to R: Operators Richard Callow, Brian Smith, Hayden Jones, Piotr Beer and Team Leader Livio Orfinelli. Not in photo afternoon shift "Stick This" had Operators Daniel Weinberg, Michael Strickland and Team Leader Mandip Singh.

The improvements ranged from simple line markings, to introducing rubbish and recycling bin systems and more complex improvements like the relocation of auxiliary equipment. Figure 2 below shows two such improvements made by the team.

Figure 2 – TPM³ Improvement Sheets for WAM

Team Name: All teams	Location: Production room	Initiated Date: 12/06/2012
Team Type: WAM	Item: Retail Consumables Cabinet	Completed Date: 12/07/2012
Initiator: I. Carmine		
Change Management Required: Yes	No	
1. Problem The production consumables are located outside the production room and are not enclosed. (Plan)		
2. Current Situation (Plan)		
3. Proposed Change / Approved Improvement (Do)		
4. Results: (Check)		
5. Future Actions: (Act)		
Approved by:	Reliability	Dayshift
Team Leaders to sign off acceptance of Proposed Change		LO
		MS

Team Name: Armageddon End of Days	Location: Palletiser/Robot	Initiated Date: 17/05/2012
Team Type: WAM	Item: Shrink wrap rolls/Work bench, loose items, paperwork	Completed Date: 31/05/2012
Initiator: Dayshift Team		
Change Management Required: Yes	No	
1. Problem Shrink wrap rolls are currently held under a workbench creating a safety risk when staff reach in to place and then remove the rolls to use. (Plan)		
2. Current Situation (Plan)		
3. Proposed Change / Approved Improvement (Do)		
4. Results: (Check)		
5. Future Actions: (Act)		
Approved by:	Reliability	Dayshift
Team Leaders to sign off acceptance of Proposed Change		LO
		MS

To complete the cycle of improvement the teams standardised their practices to support a more consistent approach to achieving the production plan across both shifts. They developed WAM standards with supporting checklists to ensure the improvements would be maintained and easily audited in the future.

Sticks – 2 to 1 Challenge!

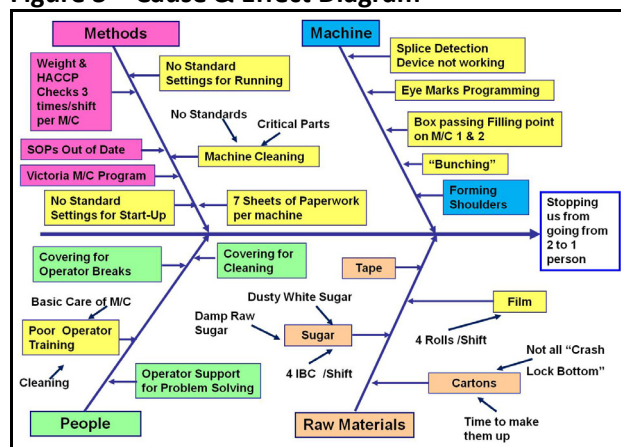
Micro Focused Equipment & Process Improvement

The Micro FE&PI Sticks Team was comprised of Mandip Singh (Team Leader), Operators Daniel Weinberg, Michael Strickland, Brian Smith, Reliability Team Electrician Rick Gualano and Site Manager Ben Crawford.

This team was faced with the challenge of identifying all the problems and issues that stopped the two Stick Machines being run by one operator and supported by a relief operator or Team Leader.

The team conducted a brainstorming session and listed all the problems from which they constructed a **Cause & Effect Diagram** as referred to in Figure 3 below. After much discussion and verification, 10 causes shaded in yellow were identified as what needed to be improved to allow one operator to run both machines.

Figure 3 – Cause & Effect Diagram



Solutions for 10 improvement projects were developed in subsequent meetings and divided up between team members to

implement (refer to Figure 4 below for example of improvement).

Figure 4 – TPM³ Improvement Sheet

Team Name:	Man down	Location:	Sticks Machines	Initiated Date:	31/05/2012
Team Type:	FPI	Item:	Pulling Jaws	Completed Date:	
Initiator:	Richard/ Carmine				
Change Management Required	Yes	No			
1. Problem (Plan)					
The pulling jaws are continually getting sugar dust over them causing the dust to melt over the jaws caramelising causing break down. Averaging three machine stoppages per machine per week taking up to 2.5 hours to clean properly each time it stops.					
2. Current Situation (Plan)			3. Proposed Change / Approved Improvement (Do)		
Improvement Target: Install metal sheet guarding with a curled lip on it to stop the sugar dust from landing on the pulling jaws			Cost: \$		
4. Results: (Check)			5. Future Actions: (Act)		
Approved by:			Reliability	Dayshift	Afternoon shift
Team Leaders to sign off acceptance of Proposed Change			RG	MS	LO
CTPM Authorisation:			Safety Coordinator	Quality Coordinator	

Once some of the improvements were implemented the team decided to run a short 2 day trial. The trial involved one person operating the two machines so that a detailed observation could be conducted. This proved to be useful as the trial confirmed the problems that still were outstanding and identified that the implemented solutions had worked.

As a result of the trial the team agreed that a second week long trial would not be conducted until all the machine improvements had been implemented. Therefore, a smaller Micro FE&PI Team would continue in Cycle 7 for 4 weeks, to follow through the outstanding improvements and achieve the mandate.

CTPM would like to congratulate all three teams on an excellent effort and result. We would also like to take the opportunity to provide a special thank you to **Carmine Caruccio** – National Continuous Improvement Coordinator, for providing great facilitation, support and guidance to all teams.

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