

Removing the Root Cause of Slime @ *Coopers*

At Coopers in Regency Park SA, their Bottling Line 2 has been running at full production across two shifts for about 10 months and over this period the “slime” on the Filler has been building up much faster than expected. Therefore resulting in more cleaning time and effort by the operators to maintain the high hygiene standard.

The decision was made that another improvement team was needed to commence Root Cause Analysis and get to the bottom of the slime once and for all.

Known as “Slime Buster III”, the team’s mandate was to:

- Investigate environmental hygiene standards to ensure effective cleaning is being conducted and maintained;
- Follow the 7 steps of the Mini Micro Problem Solving workbook to investigate the root cause and implement approved cost effective solutions so as to reduce the problem by at least 50% while also improving or maintaining the Goal Aligned Performance Measures;
- Progressively generate an A3 Summary Sheet to capture and share the outcomes; and
- Complete within 6 weeks.

The team kicked-off by “Defining the Problem” and developed the following Problem Statement:

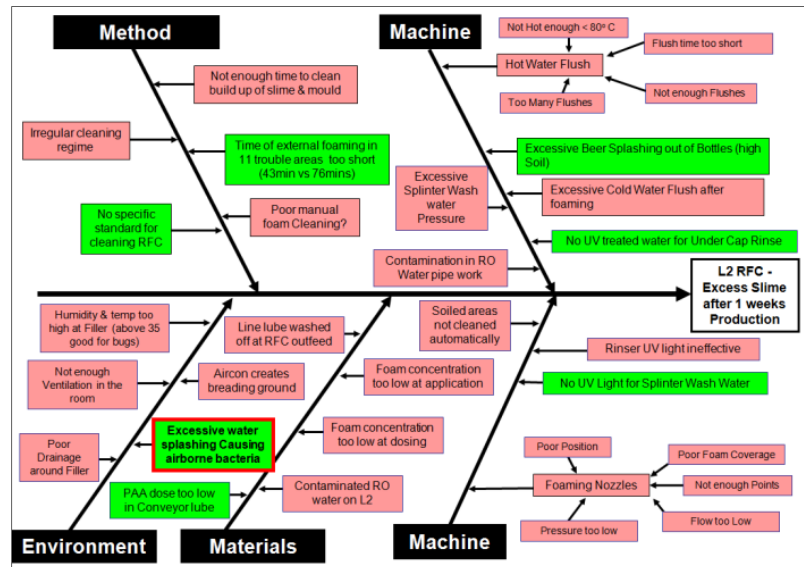
Line 2 Rinser, Filler & Crowner is seeing excessive Slime (Black, Pink & White) build up after 1 week (5 days of production).

As part of the “Where - Is & Is Not” section for defining the problem, the team identified 12 areas of focus to reduce the slime build up.

Once the problem was clearly defined and understood the team then conducted a brain

storming session and hence developed a Cause & Effect Diagram as shown in Figure 1.

Figure 1 - Cause & Effect Diagram



Once all the causes were identified, the team systematically validated every cause by observation, obtaining supporting facts / data, or by conducting experiments. All the causes coloured in red (as seen in Figure 1) had been validated as not true.

One such experiment developed by the team was conducted to validate the cause; “**Excessive water splashing causing airborne bacteria**”. The results of this experiment did validate the hypothesis that bacteria were being spread in the filler by splashing.

So the team went on and conducted a Why-Why Analysis to identify the root cause of the excessive water. It was determined that the excessive water was due to the design of the Under Crown Water Sprays. Once again an experiment was conducted to validate the root cause.

This second experiment yielded results with less slime and much lower bacteria count than the baseline. However, the 4 week torque tests were very close to the specification, therefore the team

concluded that the Under Crown Water Sprays were required, but there was a need to redesign the shower heads to reduce the amount of water being splashed around.

You will notice from the Cause & Effect Diagram in Figure 1 that this was only 1 of 7 causes coloured in green that was found to be causing the problem. This can often be the case in Problem Solving, there may be more than one cause contributing to the problem. So take this into account, and don't always think that there is a silver bullet to fix the problem.

In total, the team identified 10 improvements to be made, 5 of those were implemented before the team's Final Presentation, with plans for the remaining 5 to be completed before the end of the year.

CTPM would like to congratulate the "Slime Buster III" team on an excellent result. They showed that with some hard work and persistence you will get to the root cause of any problem you may face in the workplace.

For further information please contact:



Larry Mazza

CTPM Director

Phone: 0408 743 214

Head Office: +61 2 4226 6184

Website: www.ctpm.org.au