



Waste Minimisation Club for Plastic Companies

Overview

Plastamid:

One excellent example of an innovative company in our Club is Plastamid, who has reduced their operation and maintenance costs dramatically with mostly fairly simple changes.

- By fitting three injection moulding machines with an internal cooling system (at a cost of R20 000) and recycling vacuum pumped water on the extruders (at a cost of R120,000) they have saved a massive R96, 000 a year on their water bill.
- Total water savings amount currently to about R20 000/month
- Second grade waste material could be reduced from 74 tons to 60 tons.
- Fibre waste going to landfill amounted to 120 tons last year and has been already reduced to 60 tons per year. The target is to reduce this number further to 40 tons by the end of this year. General Waste disposed of at Wasteman in large skips could be reduced from 248 bins/year (costing the company about R 280 000 disposal cost) to 207 skips which alone constitutes savings of about R 9000/month for Plastamid.
- Plastamid saves R1500 a month by having replaced 148 fluorescent tubes lighting with more energy-efficient low mercury lights.

Last month Plastamid formed a taskteam under the auspices of Pierre van Zyl including waste education as part of Plastamid's asset management training program. The team comprises predominantly of plant workers. One person from each department at Plastamid is part of the team which gets together weekly to find and discuss waste minimisation opportunities.

Within the first month of existence some amazing opportunities could be identified and pinpointed to the Plastamid managers by staff members from various departments.

- Steel strapping: A worker suggested it might be possible to reduce the amount of steel strapping used for holding together a bale of fibre. If implemented potential savings would be about R 7200 per month. Safety and quality implications will still have to be investigated.
- Another staff member identified the following saving opportunity: To make test pieces for injection molding in Plastamid's test and research laboratory only a 500 – 800 g product sample is required. In reality however on average about 1.5- 2 kg samples are taken. It has been found that up to now the rest of the sample not required for the test piece was just thrown away instead of going back to the production. By ensuring that plastic is not wasted in future Plastamid will be able save about R 10 500 per year.

- A lady in administration found out that the company spends currently R 20 000 per year which can be easily reduced by half through better “tea making practice” therefore resulting in another R 10 000 savings per year.
- Hand paper towels in the sanitation areas have been found to cost Plastamid R 30 000 per year. Electric hand dryers at R 1200 per unit will now be installed instead with a pay back period of approximately a month.

Atlantic Plastic Recycling:

About 28 tons of screen waste and 41.5 tons of string and lump waste was reprocessed and dumped in a year with a cost to the company of R113000 for the latter two.

The installation of a new “die face cutting” extruder last month, means NO MORE string or lump waste and the production of the machinery has been increased by 30%. This has also resulted in significant energy savings.

Because of the savings he could enjoy so far thanks to advanced recycling technology Steven is currently busy building another “die face cutting” extruder for his brothers Wayne and Fred from Poly Recycling.

Practical Packaging:

After Stanley Millwood became manager and Harmony Pack was renamed to Practical Packaging a second assessment monitoring and evaluation exercise recently took place.

As a result detailed information about all waste streams formed at Practical Packaging is now available to the company.

- Through better monitoring and improved housekeeping an overall reduction in waste of about 10 % could already be achieved in the last few months.
- Through monitoring and improved logistic of machinery start ups 8% saving in electrical start up costs could be achieved as well.
- A study is currently conducted by Guy to find out the amount of costs that can be saved by shortening the lip on bottom sealed bag which measures currently 5 mm.

Total financial savings will be made available shortly.

PRP Resin:

Water and electricity rate bills were recently checked in detail by PRP Resin as part of the PQS data requirement. Going through the bills PRP detected massive expenditures in the water bill and an unrealistic large amount of water consumption. As a result a thorough search was started on the PRP premises and a huge leak was detected under the concrete floor of the warehouse.

- After this was fixed the initially measured water consumption rate of 1251 kl/month has dropped right down to 861 kl/month resulting in monthly savings of at least R

1700. PRP is now waiting for a rebate from the Municipality to compensate leakage water costs from the previous months.

Laughton & Co

- General machine wastage could be reduced from 10% of input to 6%.
- Through better control conducted by both Errol Smith and John Dixon and spot checks staff became more aware of the need to separate properly. The amount of Wasteman skip waste going to landfill could be reduced from 60 to 24 annual loads annually which constitutes a waste reduction of more than 50% of the initial volumes.
- The amount of labels placed on packets was reduced by 75% with labels currently costing Laughton 4 cent /label. With hundred thousands of packets produced per month this is a substantial financial saving.