

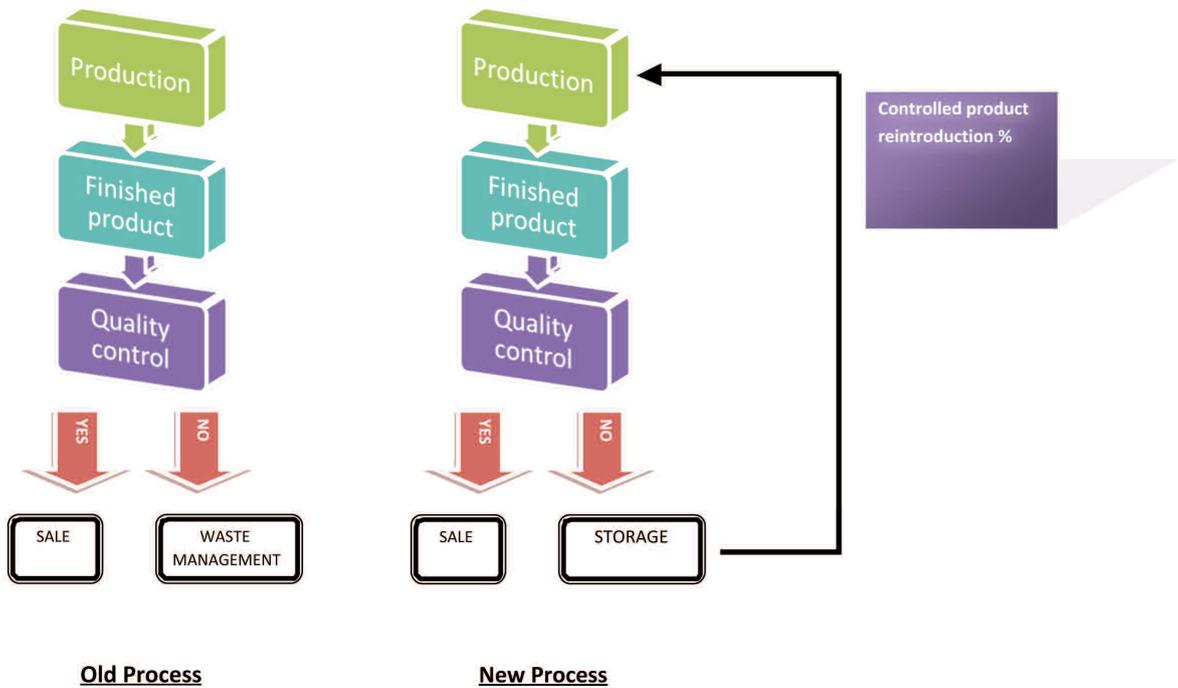
MedClean Propre Limpio


No. 110
Examples of waste and emissions minimisation initiatives

Utilization of material, considerate initially as waste, in production line

Company	Productos Concentrol S.A. (Riudellots de La Selva, Girona, Spain)
Industrial sector	Chemical specialities
Environmental considerations	<p>All industrial sites want to use all the raw materials they buy to make products that can be sold. But this is not always possible and industrial waste is produced. Once produced it must be managed outdoors as waste.</p> <p>There is another situation, when a production line doesn't work as it should, and the made product is not saleable, but is good enough to do something with it before is managed as a waste. So, it can be managed indoors. In this second case one possibility is to reintroduce this material to the production line.</p> <p>There are a lot of different considerations that must be taken into account before doing something similar, but due to the raw materials and the waste managing costs there are more and more sites that study how to reuse this (initially waste) material.</p>
Background	<p>The company has different lines of products as mould release agents, food division and others chemical specialties as glue, foams, rubber sealer, wax, etc.</p> <p>Work in this chemical environment gives the company the idea to adopt different environment working systems. On the one hand the adoption of ISO 14.001 as managing system, and on the other hand the progressive look for ways to improve the environmental impact of the industrial activity.</p> <p>One of the implemented actions is the reutilization of products that do not accomplish the quality requirements the clients demand but it can be reutilized again on behalf to be considered as a waste product. This is not always possible but the company studies each business case trying to obtain the maximum benefits, always with the customers' requirements in mind.</p>
Summary of actions	<p>Action consists in reintroducing a product to the production line, till now considerate as waste. Now this product is raw material. It is important to take into account that this product returns to the product cycle but in a controlled way, which means the company control the percentage that can entry to the new production without damaging the production.</p> <p>Normally the reintroduction percentage is in an average between 1 and 10%. So, the originally waste can be selling now as a product.</p>

Diagram of the action



Balances

Balance of material (t/year)

	Old Process	New process
Emulsion polymer treated as waste	50	0
Emulsion polymer recovered	0	50

Economic balance (€/year)

	Old Process	New process
Internal recycling cost (labour, personnel...)	0	6000
Raw material savings	0	50000
Emulsion polymer waste management cost	40000	0
Storage costs	0	5000*

Total savings (€/y)

79000

Payback period

Immediate

**In this case the company has an own storage site, they don't need to pay for this storage. So it's difficult to apply a direct cost to the storage of this product in good conditions to be reused. This figure is estimation.*

Conclusions

Three are considerations to be emphasized:

- 1- It is necessary to keep the customer's trust and the sanitation aspects at all costs. Especially in the food industry, it is better to consider a product as a waste better than reintroducing it to the process if all the guaranties cannot be fulfilled.
- 2- With this process the company succeeds in a reduction of the industrial waste produced.
- 3- This reduction brings the company important savings in waste managing costs.