

Basell Polyolefins UK Limited

- ***Right first time batch production increased from ca.85% to ca.100% after ISO 9000 registration***
- ***Customer complaints decreased by 25%***
- ***Everything is documented, and when new people join an area, they can refer to these documents rather than having to be supervised constantly***
- ***Procedure Monitoring results in less than 2 BSI non-conformances/plant/year***

The Company

Basell Polyolefins UK Limited is a large chemical manufacturing site comprising four separate production plants – polyethylene, polypropylene, carilon and oxide derivatives. These polymer chemicals are supplied into a variety of industries where they are used as raw materials for further production, e.g., automotive, compounding, detergents, carpet fibre, injection moulding, etc.

The company first obtained single site ISO 9000 registration in 1987, and over a period of 12-18 months after that time, each unit/production plant then obtained its own separate ISO 9000 registration.

There were ca. 550 employees on the site in 1987 and there are now ca.300, the cuts due, in part, to the efficiency obtained from having systems in place.

The Issues

The main driver for Basell Polyolefins seeking ISO 9000 registration was the marketplace. In 1987, UK industry as a whole was trying to be as good as Japan, and had recognised the benefits and successes that the Japanese were obtaining as a result of having quality systems in place. Basell Polyolefins therefore took the decision to introduce and implement a quality system on its site.

The Benefits

As a result of obtaining ISO 9000 registration, formal training is built into roles, recipes and better procedures were introduced into the plants, and processes are more efficient, e.g., in the oxide derivatives plant, which is a batch process, prior to ISO 9000, laboratory testing of the batch only gave ca. 90% right first time; after

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obtaining ISO 9000, this improved year-on-year by ca.2% and is now consistently at ca.100% right first time.

There has been a reduction in customer complaints with respect to the manufacture of the product, where Basell Polyolefins has direct control of its performance i.e. complaints with regard to product quality are very low and on investigation many of these are not justified. In addition, the company has not lost a single customer due to dissatisfaction with the product since it obtained ISO 9000 registration.

In the early days, staff considered ISO 9000 to be bureaucratic, but they now realise the benefits – everything is documented, and when new people join an area, they can refer to these documents rather than having to be supervised constantly.

To get staff on board, and further benefit from ISO 9000, a system called Procedure Monitoring is operated – at the work instruction level, every employee reviews a procedure once a month, to see if it is what is actually done. This either highlights that the job is not being performed as it should be, or identifies a better way to do it, and is the major reason why there are less than 2 non-conformances/year/plant when BSI audit.

Basell Polyolefins insists that all suppliers are ISO 9000 registered, and as a result, carries out virtually no testing of incoming materials, accepting that it is the correct product, albeit supported by a Certificate of Analysis. Similarly, the company used to test every out-going delivery tanker (ca.40-50/day/plant) leaving the site, but now no longer does this for bulk polymers, representing a significant savings in both time and money.

BSI's Role

BSI was involved in the pre-assessment site audits, giving feedback and support, but operating more of a policing system back in 1987. This has greatly improved over the years, and it now focuses more on helping Basell Polyolefins getting benefits from the audits and making suggestions to help the business. There is a good working relationship between Basell Polyolefins and BSI, which has developed into more of a partnership, with BSI proactively supporting the company.

BSI have suggested ways for the company to improve its quality management system, and supported it through the difficulties Basell Polyolefins has had keeping up with the constant change on the site.

About the System

Basell Polyolefins operates a virtually fully integrated management system, integrating ISO 9000 and ISO 14000 where possible. The top-level quality manual covers operation of the site, it also contains information on how they satisfy external bodies etc. and common elements such as auditing, training, procurement and document control. Each unit then has its own self-contained system, of which there are five, one for each of the four plants, and one for services (stores, logistics, etc.) with different procedures as necessary.

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The company is moving to an electronic version of the quality management system where feasible - the site manual and plant manuals being in read-only format on the internal web site, and there are only hard copies of work instructions and a limited number of plant manuals. The emphasis is on simple procedures with flow charts where possible.

Having a mostly electronic format has also helped in keeping up with all the changes that have occurred on the site in recent years, and continue to do so.