

Philips Lighting operates 2 businesses from its Hamilton site manufacturing Sox Lamps and outdoor luminaries, employing 330 people.



PHILIPS

sense and simplicity

Lean Team

Hugh Syme
Engineering Manager

Ella Edge
Quality Technician

John Rankin
Spray Room Technical Foreman

Paul Clarkson
Engineering Supervisor

John McKernan
Spray Room Setter / Operator

Lean Implementation Project Spray Oven Scrap Reduction within the Spray Room.

The project was to focus on a specific part of the Philips Sodium Lamp Manufacture process – this lamp is used for both street and tunnel lighting and is the most energy efficient method of street lighting.

At project initiation scrap and re-work was measured at 10% and the team set an objective to reduce this to 3%.

Following the initial process mapping that was carried out key issues were identified as follows:

- Control of the extraction system
- Visibility of spray failure
- Lack of identification of reasons for failed tubes
- Quality problems with supplied glass
- Lack of identification of oven failures
- A time delay of 20 minutes from spray 1 to the measuring head

Following the utilization and implementation of additional Lean tools such as Seven Wastes Analysis, Pareto charting of wastes, Ishikawa diagrams, 5S, ANDON systems and SPC, the team began to build up the true cost of re-work which included:

- Additional costs to re-spray
- Costs of excessive handling
- Additional transportation costs
- Increased inventory costs
- Costs of breakages
- Costs of poor floor utilization
- Additional energy costs

Having analysed all of the above costs, the Lean tools outlined earlier led to the team implementing numerous improvements to the process including new data sheets, Poka Yoke / ANDON application, 5S implementation and operation involvement. The benchmark costs of re-work at 10.23% equated to £325,000 per annum. Following implementation of all the improvements, **the team has achieved a reduction in re-work from 10.23% to 6.65% which equates to a business benefit of £115,000 per annum.** The plan is to achieve the overall objective of 3% during 2010 which will reduce costs by a further £118,000.00

“The greatest benefit from involving people to Lean thinking is the flexibility that it brings to our operational planning. Our team members have developed confidence in decision making and the exposure they have had to other people from different companies on the programme is invaluable.”

Alan Adrain - Operations Manager,
Philips Lighting