



“As part of their EMS project they looked into utilizing water-based paints and lacquers, sourcing wood from sustainable managed forests and cutting energy consumption by 70% through reducing furnace times for steel by as much as 50%”



Company	Industry	Contact
Spring & Precision Engineering Kerloughe Ind. Est. Rosslare Road, Wexford	Mechanical Engineering Products	T: 353 53 71740 F: 353 53 71741

Companies Activities

Spring & Precision Engineering Limited is a company based in Wexford engaged in the manufacture of various engineering components.

The company's core processes are the manufacture of truck and trailer multi-leaf springs and Pierce brand edge tools. The precision section of the business manufactures high quality machine components for the pharmaceutical, healthcare and food industries and special purpose machines for industry.

The Sub-contract section of the business consists of CNC machining of steel and cast iron components and precision fabrications for various industries.



The EMS Process & Implementation

Within 9 days of forming in 2002 the company received a notice of closure from the EPA resulting from the environmental problems it had inherited.

In September 2002, Environmental Efficiency Consulting Engineers (environmental consultants) carried out an Environmental Review of the company's activities. This Review covered the Environmental Aspects of the companies

activities, how their legal and other requirements were being met, it set out Environmental Objectives and Targets, and it outlined an Environmental Management Programme for the company to follow in order to implement its Environmental Management System, and conform to the ISO 14001 standard. In December 2002 the company appointed an Environmental Manager to oversee the implementation of the Environmental Management Programme.

Inherited environmental problems



Unbound IBC – Waste Oil



Unsegregated waste



Unbound drums



Unbound shelving

Practical Steps in EMS

Some of the practical steps the company took are as follows:

- All storage bunds for oils/paints etc were made in house from scrap metal and sheeting left over from the factory set up.
- Steel storage huts used to store paints and salts to avoid spillage and damage from forklifts.
- Damaged IBC's were cut up and reused as storage bunds.
- Dustbins were removed from offices and all waste paper, Envelopes etc are shredded and reused as animal bedding.
- Hand driers were installed in toilets to reduce paper towel usage.
- All scrap metal and metal swarf is segregated and recycled by a licensed contractor.
- Spill kits and drain blocks were purchase for emergency spill response.
- All waste salts/oils/hazardous empty containers are segregated and disposed of through a licensed contractor.
- 20 staff trained in emergency spill response.
- 7 staff trained in fire fighting techniques.
- Over 90% of incoming packaging is reused.
- Damaged pallets are broken up and the timbers are used as separators in the packing of springs.
- Spray paint booth was built with EPA approved filters.



Waste Oil Bund



EPA Approved Spray-Booth Filters

Focus on Environmentally Superior Products (ESP)

As part of their ongoing environmental improvement programme, the company decided to participate in the Enterprise Ireland ESP initiative. Through this they discovered that no other company was producing environmentally friendly edge tools. The majority of these tools are imports from China and use a lot of heat and oil.

Environmental Benefits

The company looked into utilizing water-based paints and lacquers, sourcing wood from sustainable managed forests and cutting energy consumption by as much as 70% through reducing furnace times for steel. The steel project has been very successful and has reduced furnace times by 50%.

Economic Benefits

A water-based polymer, instead of synthetic oils, is being used for quenching. The water-based polymers are biodegradable and cost very little in comparison to the synthetic oils. The disposal of the synthetic oils was also problematic and costly. The company has also dramatically reduced the use of fuel and carbon dioxide emissions by cutting the use of the diesel furnaces.

Health & Safety Benefits

There have also been a number of spin-offs resulting from the project. There have been improvements in the working and health condition in the factory through a reduction in the oil and smoke levels in the atmosphere.