



When we think of environmental legislation a picture of a pebble glassed bureaucrat with a bulging leather document case standing in reception sniffing the air for fugitive Volatile Organic Compounds. "I should like to review your environmental policy. We have had a complaint about the smell you produce from the executive houses just constructed on the wasteland at the back of this plant." His eyes twinkle as the receptionist is painting her nails out of his view. "Yes, VOC's probably highly flammable. This could be a prohibition order " looking through the window he sees the drain from your stencil production area spilling green washed out emulsion. "Another order, this is going to be a great day" his mind ponders. "With luck I will be able to shut them down permanently and my daughters' house on the executive estate will accelerate in value even faster. Oh what joy."

Jaundiced yes, reality no, fortunately. It is very easy to complain vociferously about the landslide of legislation that is starting to engulf us. But in spite of the perceived unfairness of application of environmental legislation it can have really positive effects on the performance if applied by a forward thinking management.

In simple terms the areas that are addressed are energy consumption, waste production and environmental impact of the facility. Screen printing is no different to most other manufacturing industries we buy raw materials apply work to them to produce a range of products. To do this we need energy. How efficiently we convert those raw materials determines our profitability. Good environmental management is about improving efficiencies throughout the plant. Ideally you want a structure to work within. This structure will detail the areas to be addressed along with the systems required to manage them. An external auditor on a six monthly basis audits this system. This is where the Environmental Standard ISO 14001 falls into place. Oh no not more paperwork and additional costs? No it is about effective control systems and major cost savings. Whether we like it or not European Environmental Regulations affect us all. ISO 14000 is a series of international standards on environmental management. It provides a framework for the development of an environmental management system and the supporting audit programme. ISO 14001 is the corner stone standard of the ISO 14000 series. It specifies a framework of control for an Environmental Management System against which an organization can be certified by a third party.

So ok what does it do? Well "it" doesn't do anything it is how you apply the procedures and systems and the change in culture that it develops. As yet in the screen printing industry it is not as common as it should be but market forces are encouraging printers to take it on board. Major customers are asking for the environmental credibility of their suppliers. The Quality, Health and Safety and Environmental policies of companies are all interwoven and under review. The importance of Quality systems and Health and Safety policies are understandable but Environmental Standards are not so obvious. How will protecting the ozone layer benefit my business? is a question that is often asked.



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When in Asia they appear to completely ignore such regulations. In the UK labour is expensive, property is expensive, materials are expensive and fines are very expensive. Therefore the savings that you make are all the more important.

Taking a positive attitude to environmental legislation can create considerable improvements to the bottom line. As with setting and operating procedures on your equipment measurement and control is essential. The systems need to provide data on all aspects of the operation of your facility ranging from water usage through to replacement of form tools on your platens. Everything we do has a cost to the environment and consequently a cost to the business. Being realistic it is not possible to address every issue of cost but by first looking at key cost centres it is possible to gauge the likely benefits. Take one instance that was the cleaning of an ink-mixing spatula. Originally this was done by pouring solvent from a 5 litre can over the spatula and wiping off the ink residue with a solvent soaked cloth. The contaminated solvent ran into a metal container and was disposed of this went on during the day every time a new or additional colour was mixed. By changing to a dip can dispenser the savings in solvent use and disposal costs were £1,500.00 per year. The dip can dispenser cost £40.00. Fugitive solvent emissions were reduced dramatically with a consequential reduction in health risk. A simple change brought about by a positive approach to solvent reduction.

A far more dramatic change was achieved when the management of inks was examined. Traditionally printers kept stocks of ink and solvents at their machine. This was centralised and printers were provided with press ready inks. The savings in ink purchased in one year was £65,000.00 yes SIXTY FIVE THOUSAND POUNDS. That did not include print rejects caused by colour variation or other on costs. This alone turned round the company from a mediocre company in profit terms to a good company. When you consider that a strong company in our industry is working on 4.7% retained profit that is a great deal of money.

Then there is the issue of rejects both in house and from the customer. By examining the reasons for these rejects and taking corrective action both these figures dropped by two thirds. This in turn was worth many thousands of pounds. Because the company is now measuring the situation they are now in a position to drive these numbers down still further to target their aim of zero defects.

Is it really worth saving money by buying that second hand dryer? A new one is 30% more efficient with low load start up motors. A new unit may be twice the price but the energy savings will pay the difference in 9 months. It is no contest unless you don't intend to be in business in nine months time.



Water usage in the stencil room can be a significant cost as can be a licence to dispose of contaminated waste water. In developing stencils an enclosed automatic stencil developer uses 70% less water than manual development. Produces a pristine image, recycles water filters the waste and keeps humidity levels down in the stencil making area. I am shaking my head as I write this as for the life of me I don't know any but the smallest consumer of stencils do not use these units. The same applies to degreasing mesh.

The list goes on the application of Environmental standards highlights more opportunities for cost savings and reducing the effect of our process and the chemicals we use on the environment. So where do you start? If you have read the section written by Envirowise you will see they have a web site <http://www.envirowise.gov.uk> On there there is a link to *FastTrack* Visits. Using this you can have a specialist advisor to come to your company for free and tell you where you could save £1000 per employee?

By working with Envirowise you could put your business on a *FastTrack*: a *FastTrack* to resource efficiency leading to increased profits, improved environmental performance and regulation compliance.

What is a *FastTrack* visit?

Their confidential *FastTrack* visits are on-site waste reviews. Aimed at companies with less than 250 employees, they are totally free and conducted by Envirowise independent experts. Our experts are committed to providing practical help to evaluate all your business activities and the current costs of wastes produced by your company; then identify avoidable waste and the potential savings to your company.

The results of the visits will enable you to provide your company with baseline figures for measuring improvements against, where to focus your resources and potential financial savings that you can expect.

How will a *FastTrack* visit benefit you?

Envirowise resource efficiency experts, otherwise known as 'Helpline advisors', will spend up to a day on-site to provide advise on all aspects of your business. They use specialist software tools to identify and analyse the avoidable waste and potential savings based upon best practice methods.

The Helpline advisor's aim by the end of your visit is to **highlight immediate savings by identifying low cost, high value solutions**. They work with your nominated Waste Minimisation Champion and finance team to develop achievable plans of action and target savings.



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At the end of the visit you will be provided with a report of the advisor's findings, an action plan, saving targets and references to other Envirowise publications and software that will help with your implementation plans.

If time permits the advisor can also help with any specific concerns you may have and advise on regulatory issues and legislation.

Yes it is a bit of a sales spiel but the savings are real if you are willing to commit to the culture. If you prefer to ignore the legislation details of which are available through the SPA UK Limited and on the Environment Agency website <http://www.environment-agency.gov.uk/> consider early retirement.