Sustainable re-use and recycling of tyres

ITWS is committed to carrying out its business with least effect to the environment. From complying with latest regulations to implementing a self-imposed ethical disposal policy for tyres, all staff within the company are also expected to consider the effect on the environment from their actions during the working day.
When ITWS arrive on site to swap your old tyres for new we very often take away the worn tyres. Until 2011 we had been stockpiling these old tyres at our warehouse, not content to dispose of them via Landfill (tyres larger than 1.4m in size are currently exempted from the Landfill Directive 2006).

Thanks to the design of SG Revolution super cushion solid tyres the majority of the rubber is used during its working life on machines in the waste and recycling sectors. However, we wanted a responsible solution for the disposal of the tyre remnants; one that would ensure the rubber and metal by-products could be used in new applications rather than buried on a landfill site.

A long search for an ethical disposal route finally culminated last year when we partnered Aquablast Ltd, surface preparation and material separation specialists, who successfully managed to recycle the worn tyres during experiments using ultra high pressure water jet technology. Water jets, rotating at 55,000 psi, produced clean, wire-free rubber crumb which required no further size reduction or grinding and could be instantly used in re-manufacturing or as filler in adhesives and sealants. Recovered clean steel was good enough to be sold as scrap.

A patent pending process has been developed by Aquablast for cutting and crumbling large OTR (off the road) tyres and we at ITWS are hopeful that other tyre suppliers will follow our lead to ensure that every tyre is disposed of ethically.

A recycling certificate is issued by Aquablast enabling ITWS to demonstrate their eco-compliant disposal route.

Reach Legislation

As a company we are quick to embrace new legislation particularly if it concerns the environment. Recent European REACH Annex restrictions concerning the impact of PAH’s (polycyclic-aromatic hydrocarbons) in tyre manufacture could have posed a problem for us since SG tyres are manufactured in Thailand and the legislation did not extend to that part of the world. As ITWS is the importer of the SG Revolution tyres across Europe, it was imperative that compliance to the new standards was established urgently. To ensure a response we got on a plane to persuade the Asian manufacturer to agree to change its manufacturing process to restrict the use of PAH to less than 3% weight in its tyres (test method IP346). Despite the perceived small risk from the existing tyre design, the manufacturer agreed to change its global tyre production to pre-empt similar legislation from elsewhere in the world and became one of the first to change.

Other measures

At ITWS, we are all committed to taking small steps to improve our footprint on the planet. From planning our call routes effectively to recycling paper and turning our computers off we are each identifying little ways to minimise our use of the earth’s resources. We would like to think that we take this philosophy home with us too so that it doesn’t just start and begin with work.