

## New wastewater treatment equipment delivers sustainable environmental solution for Paper Mill



Northampton, UK 30<sup>th</sup> March, 2011 - GEA 2H Water Technologies Ltd wastewater treatment equipment contractors, has recently completed a key waste water treatment contract for the replacement of the media and influent distribution system in their Biotower Trickling Filter at the Lydney Paper Mill in Gloucestershire.

The Paper Mill produces specialist paper for tea bags using the Bio-filter to provide wastewater treatment prior to discharging process water into the Severn Estuary. This project was a part of Glatfelter's long-term commitment to sustainable manufacturing processes and environmental protection and this refurbishment will ensure continued compliance with their discharge water consent.

Creating products that conserve resources and improve manufacturing processes are two of the ways this is achieved and GEA 2H's track record of delivering reliable long term wastewater treatment solutions were key in the choice for this project

Changes to the production equipment within the mill and the tightening of discharge consent levels led to a full re-evaluation of the operation of the Bio-filter and its ability to maintain the required treatment performance to meet the revised consent levels. The filter is 12m long x 9.6m wide and packed to a depth of 6m.

The Bio-filter is a critical part of the works production process as all process water surplus to the works requirement needs to meet a BOD water consent level of 25mg/l. It was critical, therefore, to evaluate the potential of the existing Bio-filter to handle the mill's future requirements and design a system that would prevent media blockages. This aside from the requirement of all refurbishments, to be able to deliver and install the equipment within the tight timescales of the refurbishment project.

After extensive discussions and design reviews, the contract was awarded to GEA 2H Water Technologies to remove the existing media, replace it with BIOdek™ structured media and supply a new distribution system with targeted flushing of the media, an important aspect of maintenance for a Trickling Filter in such an application.

*"GEA 2H Water Technologies' BIOdek™ Plastic structured cross flow media based filters are a more efficient processing medium than traditional methods such as filters with mineral media (rock/stone beds) because the overall available surface area can be larger and is designed specifically to maximize processing efficiency"* explained Richard Manning, MD, GEA 2H Water Technologies.

GEA 2H plastic media filter technology, together with accurate wetting rate and high distribution rates enables the treatment of water in a controlled manner. This means efficient biomass utilisation and quality effluent. With GEA 2H's improvements the efficiency of the trickling filter allows the flow to be discharged to the adjacent water course to meet the discharge water consent.

Learn more about our Design Service: [gea-2h.co.uk/contact-us/design-advice](http://gea-2h.co.uk/contact-us/design-advice)  
More information on Wastewater Treatment: [gea-2h.co.uk/wastewater-treatment](http://gea-2h.co.uk/wastewater-treatment)  
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**GEA 2H Water Technologies Ltd (GEA 2H)** is the UK's leading manufacturer of plastic media for water management plant. Its applications are for utilities, such as electricity generation, water supply and waste water; general industrial water cooling and commercial and domestic storm water control and attenuation. GEA 2H sell direct and indirectly via agents and builders merchants and work closely with specifiers, architects and civil engineers in the design and installation of a wide range of industrial projects.

During its 30 years in business, GEA 2H has built an outstanding reputation for quality products and services. GEA 2H comprises the former Environmental Control Division of Munters, Ranik and 2H Aqua operations. GEA 2H supports customers in the UK, Eire and Middle Eastern countries.

GEA 2H Water Technologies Ltd is one of 250 operating companies in the GEA Group AG. GEA is a leading global technology group with core competencies in specialty mechanical engineering and plant engineering. Its annual sales in 2009 were €4.4 billion and it employs 20,000 people in 50 countries.