

## **United Utilities adopt Oxy-Dep™ for Hereford**

The United Utilities waste management centre at Hereford has a pre-treatment plant consisting of eight below ground concrete tanks which had been used for a number of years for the storage and pre-treatment of tankered-in waste. One of the tanks is used as an aeration vessel, oxygenated by a diffused air system capable of introducing up to 600kg per day of oxygen to the process.

The United Utilities team spotted an opportunity to make better use of the facility by converting three of the concrete tanks to operate as pure oxygen Sequencing Batch Reactor (SBR) units. This would considerably increase the available treatment capacity of the plant and offer greater flexibility in terms of both plant operation and the nature and type of waste that could be treated at the site.

United Utilities already operated an Air Products Oxy-Dep™ system at the Clariant site in North Wales and were therefore well aware of the process benefits offered by the technology and they chose to install three similar oxygen systems at the Hereford site.

The process design for the site improvements were carried out by the United Utilities team. The SBR system was designed with three Air Products Oxy-Dep™ systems, each capable of injecting up to three tonnes of oxygen per day, as the sole source of process oxygenation and tank mixing. The site was designed to accept tankered-in high strength wastes, typically including industrial effluent and landfill leachate.

This combination of varying effluent loading and consistency made the pure oxygen SBR solution the ideal process choice. The completed design increased the operational throughput of the site by a factor of six, offering United Utilities a cost-effective way to improve the commercial capabilities of the site.

John Carter from United Utilities said: "We need a robust treatment process that can deal with a range of high strength wastes. We chose this system because it had proved to be effective and flexible at our other sites."

The modifications to the site were commissioned during spring 2002 and since then the system has been operating successfully in treating the waste streams received. It has met the expectations of United Utilities in terms of flexibility to react to varying effluent characteristics, whilst maintaining discharge conditions.



**Oxy-Dep™ system installed at United Utilities, Hereford**

For more information visit our website:

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