



GEA 2H Water Technologies Ltd

## Lamella Settlement solution delivers compliant Galway drinking water supplies

Northampton, UK 1<sup>st</sup> May January, 2010 - GEA 2H Water Technologies Ltd, the UK's leading manufacturer of wastewater treatment equipment and Response Engineering Ltd; one of Ireland's leading water services companies, have delivered an innovative water treatment solution for Terryland Water Treatment Plant. Due to the use of GEA-2H's modular lamella settlement system the required increase in capacity was achieved using the existing tanks rather than the initial plan which had been to build an additional 6 tanks, thus delivering ongoing process efficiencies and very significant cost savings on the building project.

Response Engineering's Managing Director Noel Hanley stated, *"This project is part of a major water supply investment programme by Galway City Council to deliver public drinking water supplies that are compliant with drinking water standards. The Terryland site is an important element as the plant upgrade will produce an extra 20,000m<sup>3</sup> of water per day which means that the city's dependency on Galway County Council's Luimnagh Water Treatment Plant could be reduced as well as providing additional capacity to meet medium term needs."*

The project to increase the capacity of the works from 33,000m<sup>3</sup>/day to 55,000m<sup>3</sup>/day was awarded to Response Engineering Ltd. and commenced with a review of the primary settlement stage of the water treatment. This comprised 10 off 10mtr square tanks with a 60° slope base (Dortmund type tank).

It had initially been thought that an additional 6 tanks would have to be built using the same normal settling regime. However, after consultation with GEA, it was determined that by using GEA 2H's unique modular lamella clarification system TUBEdek™ KLP638 media, which would deliver an improved settlement regime, it would be possible to make better use of the existing 10 tanks. This is due to its unique design which encourages laminar flow. It was calculated that by installing this media 900mm deep in the top section of the tank, 400mm below the top water level a discharge within the specification required of Turbidity NTU <1, Settled Water Colour <10 and aluminum <0.5mg/l would be achieved.

Response Engineering placed an order on GEA 2H to supply 900m<sup>3</sup> of TUBEdek KLP638 media together with 1900m of specially shaped extruded GRP beams used to support the media in the tank. Sufficient GRP walkway grids were also supplied to cover the TUBEdek media and provide a safe access for inspecting and cleaning the TUBEdek modules.

GEA 2H's, Managing Director Richard Manning said, *"Making sure the plant is installed correctly and with minimum disruption is as important as the quality of the product itself."*

To achieve this, a set of instructions for installing the TUBEdek was supplied by GEA 2H allowing the media to be installed in one tank at a time as each was taken out of service in sequence. To ensure fitting the media by the main contractor's staff was simple, the media was supplied in modules 2000mm long x 400mm wide and the support system rails 3330mm long, sized to be easily installed in the tanks without cutting. The 900m<sup>3</sup> of TUBEdek KLP638 media were successfully installed by Response Engineering creating a primary clarification system which can maintain the specified water quality at the new flow rate of 55,000m<sup>3</sup>/day.

Lamella clarification, sedimentation and other separation techniques are used extensively to assist the settlement process of removing solids from liquid. TUBEdek™ is a lamella clarification system comprising modules of interlocking plastic tube settlers which allows the efficient separation of solids from liquids, an essential part of sedimentation plant. Significant solid/liquid separation operational efficiencies, for both existing and new sedimentation tanks, can be achieved by the use of TUBEdek™.

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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 sells direct and indirectly via agents and builders merchants and works 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 speciality mechanical engineering and plant engineering. Its annual sales in 2007 were €5 billion and it employs 20,000 people in 50 countries

**Response Engineering Ltd** was founded in 1998 as a preventive maintenance contractor and has since developed into one of Ireland's leading providers and operators of water services installations for major industrial and municipal clients.

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### Web Link HTML Details

*For use on web links from this document to the relevant section of the GEA 2H website:*

#### Text

**GEA 2H**, the UK's leading manufacturer of **wastewater treatment equipment** <http://www.gea-2h.co.uk/wastewater-treatment/> has partnered **Response Engineering Ltd**; in delivering an innovative water treatment solution for the Terryland Water Treatment Plant to provide compliant Galway drinking water.

#### HTML

<p><strong>GEA 2H,</strong> the UK's leading manufacturer of <strong><a href="http://www.gea-2h.co.uk/wastewater-treatment/">wastewater treatment equipment</a></strong> has partnered <strong>Response Engineering Ltd</strong>; in delivering an innovative water treatment solution for the Terryland Water Treatment Plant to provide compliant Galway drinking water.< /p>

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