

## **Why MPPE for Floating LNG?**

### **Presentation and visit Shell Prelude MPPE unit by Dick Meijer, Sales and Marketing Director VWS MPP Systems B.V.**

Natural gas is of growing importance as fossil fuel worldwide. Natural gas has often to be transformed into Liquid Natural Gas (LNG) to make economic transport possible. The big challenge in gas/condensate and LNG produced water treatment is to create a discharge that is not harmful to the environment. The reason is that the majority of the toxic content is present in dissolved form. This has the attention of legislative authorities worldwide and has led to discharge management tools such as the Environmental Impact Factor (EIF) introduced by Norway and the Risk Based Approach (RBA) being developed by OSPAR, both to aim at Zero Harmful Discharge to the environment.

The Macro Porous Polymer Extraction technology (MPPE) has been selected for the Shell Prelude project to deal with this challenge. MPPE is a water treatment technology where existing processes like extraction, steam regeneration and absorption are combined with a unique medium. MPPE has been applied in offshore produced water since 1994. Initially in smaller projects and later in larger projects like Shell/Statoil Ormen Lange (Norway), Woodside Pluto (AU) and currently the Shell Prelude project.

MPPE is an innovative technology that has been developed by Akzo Nobel and transferred to Veolia Environment by the end of 2006.

The presentation was held at the Novotel in Rotterdam and followed by a visit to the Hollandia Yard, where the unit was under construction. The number of participants were in the order of 33 persons, including the tour leaders.