

# **Semi-enclosed Coastal Seas Environmental Protection Technology for Refinery Wastewater**

**He Qiang & Guo Jinghui**  
*Tsinghua University, Beijing, P.R. China*

Normal wastewater secondary treatment technology can make refinery wastewater comply with the Chinese Wastewater Discharge Standard, in which the concentration of oil is 10 mg/l. But this is 200 times the class I seawater quality standard, which is 0.05 mg/l. So if this kind of wastewater is discharged near shore of the semienclosed or the sensitive sea area, it is sure to cause pollution and to damage environmental resources. This paper takes the wastewater treatment of Huizhou Refinery, Guangdong Province as an example to illustrate after the deep treatment of refinery wastewater, how to choose the optimal position of the discharge outlet and design a reasonable diffuser system at the deep enough sea area according to nearby sea area characteristics to get enough instantaneous dilution rate. And by the help of seawater hydraulic conditions, to transport the pollutant from the sea area as quickly as possible so as to effectively protect the cultivation function of the sea area.