



Wastewater Treatment

The commitment of an expert
in water purification

Wastewater Treatment

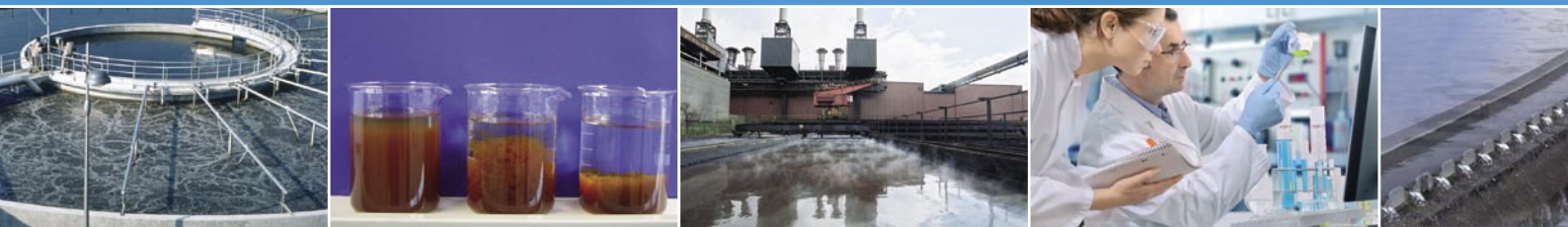
Nowadays, water is a big concern for industries. Environmental regulations are changing very fast and becoming stricter and stricter.

On the other hand, the industrial processes which require water become more specific and can add components very difficult to remove from the produced wastewater.

Depending on their manufacturing processes, the industrial activities generate continuous or discontinuous flow of wastewater, with a very wide range of quality.

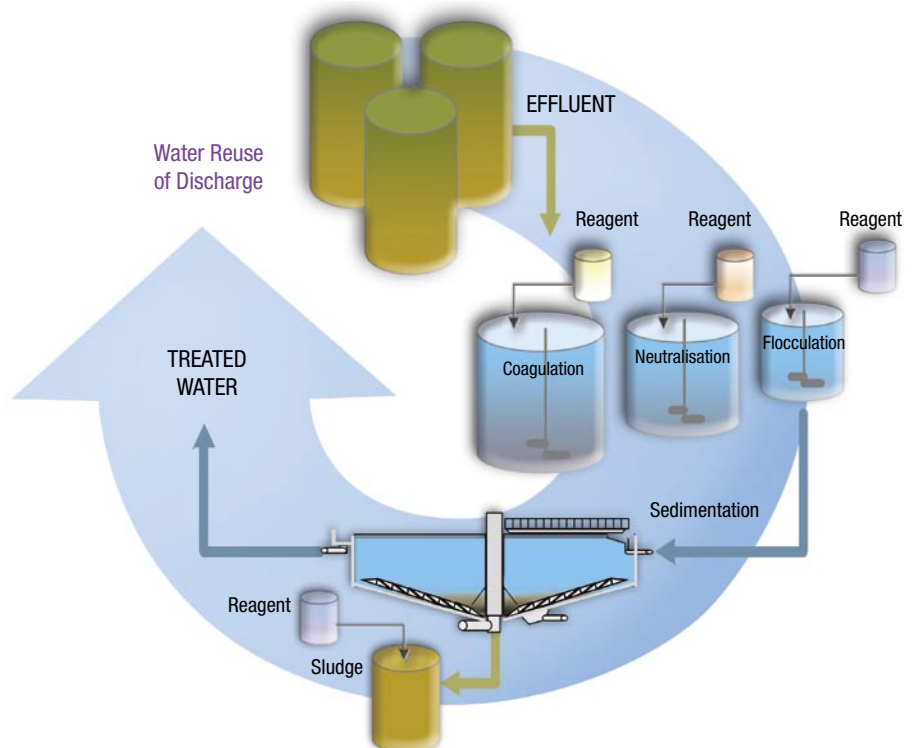
BKG Water Solutions experts are with you to determine and apply water treatment solutions that meet your specific requirements, whatever are your production type and your wastewater.

- » **Refineries & Petrochemical Industry**
- » **Chemical & Pharmaceutical Industry**
- » **Paper Industry**
- » **Food & Beverage Industry**
- » **Steel Industry**
- » **Metal-working Industry**
- » **Waste Treatment & Disposals**
- » **Municipal Wastewater Plants**



Our experience in all these sectors enables us to implement reliable solutions:

- Facing possible failures of your existing treatment
- Improving the performance of your treatment processes
- Proposing innovative treatments
- Optimising your global operational costs
- Proposing solutions for water reuse



A full range of technologies for wastewater treatment: Coagulants, Flocculation aids, Adsorbents, Antifoamers, Odour control

For each industry or collectivity, we design customized treatments with the most suitable combination of coagulants, additives, flocculants, for your specific wastewater and requirements.

Common problems

- » Turbid water and suspended solids in the outlet water
- » High COD and BOD
- » High hydrocarbons content (HC)
- » High content of oils and organic compounds
- » High volume of sludge and high water content in the sludge
- » High level of residual heavy metals and specific anionic compounds (e.g. phosphates, fluorides)
- » Biological growth
- » Bad smell
- » Formation of persistent foam
- » High cost of water discharge
- » High cost of sludge disposal
- » Non accepted polyacrylamide (PAM) based products

Our solutions

- » **Inorganic coagulants**, we are one of the biggest producers of Al-salts in the world
- » **Mixed and organic coagulants**, in synergistic formulations for reduced chemical consumption and sludge generation
- » **Wide range of flocculants**, classical powder and emulsion polymers, innovative water based flocculants, ready-to-use solutions or new generation of polyacrylamide-free flocculants
- » **Organic emulsion splitters** able to react at neutral pH and without heating, for better valorisation of oil
- » **Special adsorbing agents** for the reduction of COD, BOD, HC and the removal of colouring agents
- » **Specific additives for heavy metal and anionic compounds removal**, e.g. Zn, Ni, Cr, Pb, F, P
- » **Odour control**, specific products for real chemical elimination
- » **Antifoamers**, silicone based or silicone-free and with low COD contribution
- » **Sludge dewatering treatments**, compatible with the main sludge filtration systems, for a better filtration and dryness

Engineering and Equipment

Our range of equipment includes solutions for each step of your complete process.

- » **Economic equipment:** efficient, reliable, fast to install and simple to use;
- » **Technical support:** installation, start-up, monitoring and follow-up
- » **Dosing stations**

- » Systems for the **preparation of the products** (e.g. flocculants, adsorbing agents, acidic/alkaline reagents)
- » **Automatic system** for emulsion splitting
- » **Control** and monitoring systems
- » **Storage units**
- » Complete **tailor-made wastewater treatment** equipment



Comprehensive solutions for water purification



BKG Water Solutions global offering

- » **Audits** and survey of your plant by our wastewater treatment experts
- » **Training** of your staff – operations, executive and environmental managers
- » **Water characterization and monitoring**, from the production plant to the wastewater treatment plant, at the various process steps. Carried out on-site or at our Analysis Laboratory
- » **Lab and pilot trials**, with samples of your industrial water and simulation of your industrial conditions, to determine the most suitable treatment by jar testing, specific solutions designs, industrial trials
- » **Regular validations** of your treatment process and recommendations for the running conditions of the plant
- » **Specific Research and Development projects** carried out by our Corporate R&D Departments in Düsseldorf and Ludwigshafen, Germany

Your benefits

- » **Improvement** of your process performance and treatment efficiency
- » **Compliance** with environmental regulations and local constraints
- » **Significant reduction** of sludge and/or oils
- » **Better management** of the generated sludge and/or oil
- » **Reduction of chemicals consumption**
- » **Study of possible water reuse** or reduction of wastewater volumes
- » **Integrated process solutions**
- » **Optimization** of total process costs

Our service engineers and representatives can provide you locally with reliable tailor-made solutions.

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