Special Treatment Procedures and Products

- **Raw Water Treatment**
  - Actiflo®
  - Multiflo®
  - Flotation
  - Sludge Treatment
  - Coplator®
    (CORRUGATED PLATE AERATOR)

- **Filtration**
  - Multimedia Filter, Gravel Filter
  - Contifilt®
  - Activated Carbon Filter
  - Berkal Disc Filter
  - Ultrafiltration

- **Degasification**
  - Trickle Degasification
  - Membrane Degasification
  - Thermal Degasification
  - Vacuum Degasification

- **Demineralisation**
  - Ion Exchange
  - Reverse Osmosis
  - Electro Deionisation (CEDI)

- **Condensate Polishing**
  - Cartridge Filter (also backwashable)
  - Ion Exchange
  - Chemical Conditioning
  - Oil Separation (if required)

- **FGD Waste Water Treatment**
  - Multiflo®
  - Circular Clarifier
  - Sludge Dewatering
  - Contifilt®

- **Process Water Treatment**
  - Multiflo®
  - Circular Clarifier
  - Sludge Treatment
**Water Cycle in Power Plants**

1. **Cooling Tower Make-Up Water Treatment**
   Compact plants for treatment of all types of raw water (river water, sea water and well water) using several treatment procedures, e.g. flocculation, sedimentation, decarbonisation or sludge treatment.

   We select the optimum treatment method from our recognised Veolia processes, such as Actiflo®, Multiflo®, flotation, etc. for each individual client request.

2. **Demineralisation**
   Treatment of raw or process water to demineralised water using the following procedures:
   - Pretreatment by conventional filtration or membrane treatment
   - Electro deionisation (CEDI)
   - Demineralisation by ion exchange
   By optimal selection and combination of our treatment processes we can guarantee compliance with the quality requirements for boiler feed water.

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**Condensate Polishing**
There are extensive requirements for operating safety and quality of condensate treatment in power plants.

The condensate will be treated using highly-effective cartridge filters (also backwashable) and downstream ion exchangers. The various combinations of ion exchangers and associated regeneration (internal or external) will be selected in accordance with the requirements of our clients.

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**FGD Waste Water Treatment**
The waste waters produced during the flue-gas desulfurisation process have to be treated before being discharged. The main processes for this waste water treatment are: gypsum desaturation and reduction of solids, as well as the removal of heavy metals.

The treatment procedures: flocculation, precipitation and sedimentation will be designed as two-staged processes. If requested by our clients a continuous sand filtration will be added.
Our customers include:

- Alstom
- BASF
- DOW
- EnBW
- EVONIK
- E.ON
- Hitachi
- Infra Leuna
- MAN
- RWE
- Siemens
- Vattenfall
Mobile Solutions for Water Treatment

Veolia Water Solutions & Technologies has developed a flexible water treatment service: AQUAMOVE™. Various numbers of AQUAMOVE™ trucks or containers can be provided short-term for several treatment applications. If required, corresponding service engineers can also be provided at site.

Applications
- Operational breakdown
- Plant commissioning
- Plant downtime for maintenance purposes
- Delayed delivery of new plant
- Changes in raw water quality
- Peak demand

Services
- Water Pre-Treatment
- Filtration – MOFi™
- Activated Carbon Filtration – MOFi™
- Reverse Osmosis – MORO™
- Softening – MODI™
- Demineralisation

Advantages
- Consistent treated water quality up to 0.08 µS/cm
- Off-site regeneration of resins
- Automatic monitoring
- Flow rates from 2 to 400 m³/h
- Safety standards
- Maximum water yield
- Reliable contingency planning
- European mobile service network
- Fast delivery and commissioning

Our service for your safety

You have a significant responsibility as an operator. You need constant quality and safety for your water production. We can guarantee you a quick reaction and short waiting time due to our access to the Veolia Water Solutions & Technologies region-wide service network. Via online connection, we have real-time access to your water treatment plant and can execute remote diagnostics.

This direct access enables the adjustment of important parameters, investigation of failure and error sources, as well as a short time in providing spare parts and consumables. Service and downtimes will be reduced to a minimum.

Our competent service staff will be available at any time via the service hotline for support.

Service-Hotline
+49 5141 803-450
Company profile

The Veolia Water group belongs to Veolia Environnement and provides **100 million people** worldwide with processes for water and waste water treatment. Veolia Water Solutions & Technologies is one of the four subsidiaries of Veolia Water and is the **worldwide leading provider** of technologies for treatment of drinking, industrial process and waste water. The core competencies are lying in the **design, engineering and implementation** of complex plants for water and waste water treatment for municipalities, private customers and industrial enterprises.

Furthermore, we offer standardised water treatment systems for swimming pools, domestic services, plants for the petrochemical, power generation, beverage and pharmaceutical industries, as well as mobile plants for emergency services.

Additionally, we offer water treatment plants for ships and offshore-platforms.

Veolia Water Technologies Deutschland GmbH

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