

UPSTREAM SERVICE SOLUTIONS FOR WATER INJECTION



Complete **water inject**

To enhance your water injection efficiency



START-UP AND
COMMISSIONING



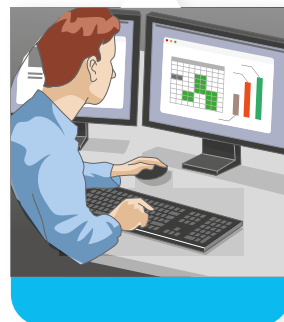
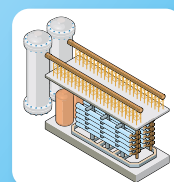
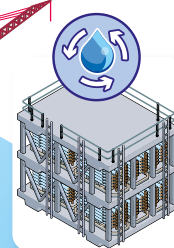
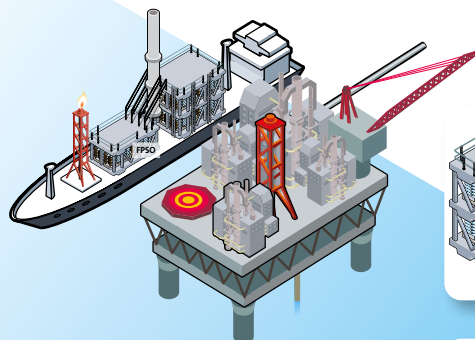
TRAINING



OFFSHORE

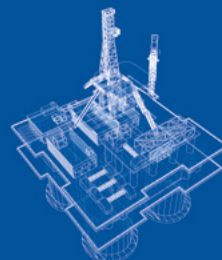
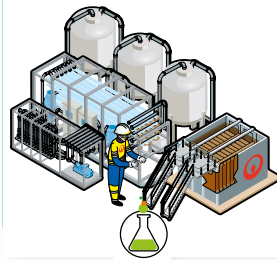
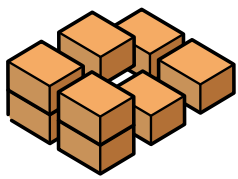


ONSHORE



tion service solutions

Veolia provide a full range of Service Solutions for the Upstream sector, specialised in Water Injection Management. The primary objective of our service solutions is to provide the technical and practical assistance required by our clients to maximise plant efficiency and water availability while reducing operating costs and enhancing working life.





START-UP AND COMMISSIONING

Veolia provide full technical support for start-up scheduling and commissioning of water injection systems.

Our commissioning specialists assist and supervise clients with system installation, commissioning, start-up routines and protocols. Our engineering team will oversee your new process plant through installation, testing, commissioning and start-up, demonstrating the operability and reliability of the plant to achieve the targeted performance. ●



BENEFITS

- ◆ Bespoke personnel for specific water injection system start-up
- ◆ Full onshore technical support, for provision of expert support at start-up



OFFSHORE SERVICE

Veolia provide experienced Field Service Representative (FSR's) to facilitate full time 24/7, 365 day operational coverage for Offshore rotations, to operate the water injection system. FSR's are also mobilised for specific interventions, such as routine audit and service intervals. Customers can also select bespoke FSR applications for turnaround scheduling. ●

BENEFITS

- ◆ Water Expertise
- ◆ Technology Expertise
- ◆ Risk Mitigation
- ◆ Multi-skilled Engineer
- ◆ Expert onshore support





ONSHORE SERVICE

Veolia provide a bespoke service solution for Asset Integrity for your water injection system. The service is a combination of a digitised (Aquavista™) real time data monitoring system and Veolia's onshore technology specialists. The service enables integration with customers teams to drive water injection efficiency, whilst optimising the system performance to suit the water injection demand.

We offer customised service packages to suit customers operational budgets. Further details can be provided on request. ●

AQUAVISTA™
DIGITAL SERVICES



BENEFITS

- ◆ Specialised digitised support combined with our onshore technical experts
- ◆ Increased water injection efficiency
- ◆ Customised operations / procedures to optimise system availability in real time
- ◆ Early event detection mitigating operational risk
- ◆ Predictive data analytics



HYDREX™ CHEMICALS

Veolia provide an innovative Hydrex™ chemical range to provide maximum efficiency of water injection systems.

As a technology provider and operator, Veolia is able to ensure the efficiency of the chemicals used to deliver optimum operation of membrane filtration systems and produced water treatment systems used in the upstream sector.

This, in combination with our onshore digitised service, delivers customer value with lower opex. ●



HYDREX™ WATER TREATMENT RANGE

- ◆ Anti-scalants
- ◆ Non oxidising biocide
- ◆ Membrane alkaline cleaners
- ◆ Membrane acid cleaners
- ◆ Scavengers Cl_2/O_2
- ◆ Coagulation aid
- ◆ Custom blended products

BENEFITS

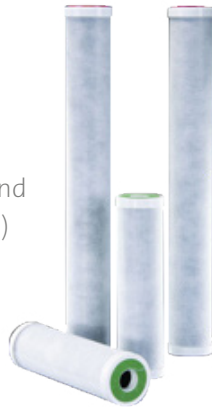
- ◆ Reduced operating costs
- ◆ Integration of best in class technology
- ◆ Maximise productive uptime
- ◆ Expert onshore and offshore support
- ◆ Global supply / support base



SPARES MANAGEMENT

Veolia provide a complete one stop shop for water injection parts and consumables. We supply our own range of cartridge filter elements, end caps, a ranged of liners for produced water technology and are an OEM for DuPont (DOW) membranes.

Storage of these parts can also be offered. ●



BENEFITS

- ◆ Engineering and technology expert support on parts
- ◆ Logistical knowledge
- ◆ Regional support
- ◆ Technical product support

MEMBRANE SERVICE

Veolia have the experience and capability to implement a membrane management service. We provide membrane autopsy services to obtain the necessary understanding of the foulants existing on or within the membranes and allow analysis and subsequent operational changes for optimisation of system delivery for injection. ●



BENEFITS

- ◆ Increased availability
- ◆ Reduce number of CIP's per year
- ◆ OPEX optimisation
- ◆ Increase of availability
- ◆ Longevity of membranes



TRAINING

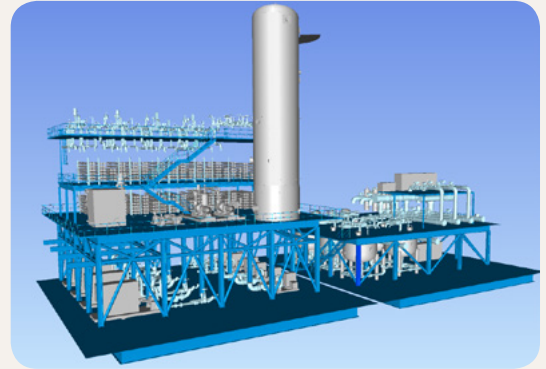
Veolia, can provide bespoke training programmes to cater for the diversification of the water treatment systems. Our regional service centers provide onshore membrane cleaning which is adapted to provide onshore training, such that customers personnel obtain both theoretical and practical training, without the need to stop / start the offshore water injection systems for training needs. Offshore FSR's also provide scheduled offshore visits for training and competency validation of the customers operators. ●





ENGINEERING UPGRADES / BROWNFIELD EXPANSION

Veolia provide a range of engineering enhancements from preliminary design studies through to fully commissioned turnkey solutions. As an EPC water treatment company, we also specialise in through life upgrade or revamping of assets to cater for the quality or volumetric demand of the water injection systems through lifecycle. ●



ENVIRONMENTAL SERVICES

Veolia provide a turnkey environmental service for the Upstream Offshore sector, whereby NORM, contained within the PWT processing equipment topside can be characterised offshore, cleaned and contained offshore and then hazardous waste disposed through Veolia's in house capability. ●



Environmental & Personal Safety Program

*Our seven safety
elements are:*

1. Management Commitment
2. Safety Responsibility and Accountability
3. Employee Involvement
4. Hazard Identification and Control
5. Accident Investigation and Reporting
6. Training
7. Planning and Evaluation

More than 179,000 global employees working in customer systems, Safety and Environmental Stewardship are at the core of every activity Veolia undertakes. Our GOAL is to conduct SAFE activities in a SAFE manner every day.

Resourcing the world

Veolia Water Technologies

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