



United Arab Emirates conference

**Innovative water quality monitoring in water installations:  
Risk assessment approach from potable water up to reuse water**

Sunday, November, 30<sup>th</sup>

Organized by

**Aqua-tools- France**

*In presence of the General Consul of France in Dubai*

Location

**Hotel NOVOTEL**

**World Trade Center Dubai**



Our way to manage sanitary risks  
and improve environmental conformity.

## AIM OF THE CONFERENCE

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**Water plays a strategic role** in the development of many facilities in the United Arab Emirates. Still, the **biggest construction projects** in the world take place in UAE with the creation of the most ambitious architectural centers. Tremendous water production plants and distribution networks are constructed and management of available water resources is an important issue.

**New technologies for disinfection** or for **desalination of seawater** are in great demand as are those for filtration, **wastewater treatment** or modernization of existing systems. The **reuse of water** is in the center of all **waste water treatment plant projects**.

In this context, **water quality has to reach international standards** within 5 years and there is an urgent need to continue to **educate water services managers** on the newest and more adapted methods for a **daily microbial monitoring of water installations**.

The aim of this conference is to bring high level European knowledge on **Management of Water Quality** for **production & distribution of potable water, sanitary water, cooling tower water, waste water and reused water**. The Water Safety Guidelines of the **World Health Organization (WHO)** will be presented.

The **most eminent European Water Microbiologists**, involved in water quality assessments for **potable water, hospital and industrial setting**, will present the newest knowledge on the development of biomass in water networks and the **implementation of efficient methods** for the **surveillance and control of the installations**.

The presentations have been chosen to **give a practical approach for monitoring for bacterial proliferation** in domestic, sanitary, industrial and waste water.

The conference will give a clear view on the **newest analytical methods** existing for control of bacteria proliferation and their application: new generation of quantitative ATP assays.

Field applied methodology for bacterial risk assessment will be presented through different case studies.

## INVITED SPEAKERS

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- **Dr John V. Lee, BSc, PhD, FWMSoc, FRSPH (United Kingdom)**

Head of Water and Environmental Microbiology Reference Unit, Department of Gastrointestinal Emerging and Zoonotic Infections, Centre for Infections, Health Protection Agency, England (U.K.).

Dr. John Lee leads the Health Protection Agency (HPA) Water and Environmental Microbiology Reference Unit; has over 35 years experience researching the detection, survival and control of pathogenic micro-organisms in the environment, particularly water and air; is widely experienced in the routine examination of environmental specimens and the investigation and control of outbreaks of water-borne and air-borne disease. Since 1982 he has worked extensively on Legionnaires' disease and investigated over 60 outbreaks worldwide. He is a member of national and international committees dealing with the microbiological testing of waters and the safety of water systems and a co-author of the European Guidelines for Control and Prevention of Travel Associated Legionnaires' Disease. He has acted as an adviser to the WHO on several occasions (Diarrhoeal Disease Control Programme, Legionnaires' Disease, Maintaining Water Quality in Buildings, Aerosol transmission of SARS in domestic premises, Recreational Water). He advises on the control of micro-organisms in artificial water systems including hot and cold water systems, cooling systems and pools.

- **Prof. Philippe Hartemann (France)**

Dr. Philippe Hartemann is Professor of Public Health at the Head of Hygiene and Environmental Health School of Medicine at Nancy University.

He is also the Chief of the Hospital Hygiene Unit of the University Hospital of Nancy.

Prof. Hartemann previously occupied the position of Head of the Project office for environmental health in Eastern European Countries and is now both Vice Chairman of the European Community of Emerging and Newly Identified Health Risks in Brussels and Vice Chairman of the French Scientific Community of Water Safety ( AFSSA, Paris)

- **Prof. Dr. med. Martin Exner (Germany)**

Dr. Martin Exner is Professor of Hygiene and Public Health at the Medical Faculty of the University of Bonn, Germany and Director of the Institute of Hygiene and Public Health of Bonn - Collaborating Centre of the WHO for Health Promoting Water Management and Risk Communication. Professor Martin Exner was previously the President of the Society of Hygiene, Public and Environmental Medicine in Germany (GHUP) and occupies now the position of Vice President of the German Society of Hospital Hygiene (DGKH). He is the chairman of the Disinfection Committee of the German Association for applied Hygiene and Member of the managing board of the Association of Applied Hygiene. Prof. Exner is member and chairman of the Drinking Water Committee of the German Ministry of Health at the German Environmental Protection Agency .

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## LOCATION

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## PROGRAM OF THE CONFERENCE

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### MORNING

**8h45 – 9h15: Welcome coffee and registration**

**9h15 – 9h30:** Allocation of the General Consul of France in Dubai.

**9h30- 9h45: General introduction - Prof. Philippe Hartemann**

- Global management of available water resources and provision of access to drinking water and sanitation
- Water quality - how to reach the international standards in next 5 year time?

### ISO STANDARDS

**Session I: International standards for monitoring water quality**

**9h45 – 10h45: ISO microbiological standards for water quality**

*Dr John Lee*

- Current ISO standards for water microbiological quality - water quality indicators and pathogens
- New alternative methods for water quality surveillance in UAE – new generation of ATP-metry technology

**10h45 – 11h15: Water Safety Guidelines of the World Health Organization**

*Mrs. Veliana Todorova*

### POTABLE WATER

**Session II: Risk assessment in water installations**

**11h15 – 12h00: Proper maintenance and monitoring of potable water installations**

*Prof Philippe Hartemann, Mrs. Veliana Todorova*

- Importance of the surveillance of biofilm for securing potable water quality
- Water safety plans during production, distribution and maintenance of domestic water
- Case study: correlation between heterotrophic plate counts and ATP-metry method during monitoring of drinking water

**12h – 13h30: Lunch time**

## PROGRAM OF THE CONFERENCE

### AFTERNOON

#### SANITARY WATER

##### **13h30 - 14h15: Monitoring of sanitary risks linked to Legionella and Pseudomonas aeruginosa proliferation in large buildings particularly hospitals and hotels**

*Dr John Lee; Mrs. Veliana Todorova*

- Standardization of sanitary rules: requirements for safe tourism
- Water Safety Plan defined by WHO for hospitals and hotels surveillance
- Monitoring of Legionella risks in large buildings
- Case study: Water quality inspections in health care establishments using new generation ATP-metry technology

#### COOLING TOWERS

##### **14h15- 15h: Management of Legionella risks in cooling towers and circuits**

*Mr. Marc Raymond*

- Reducing Legionella risks in cooling circuits by implementation of efficient monitoring programs
- Microbial security of cooling installations by active biomass surveillance using Quench-Gone Aqueous kits

#### WASTE WATER & REUSE WATER

##### **Session III: Wastewater and reused water**

##### **15h – 15h30: Evaluation of performances of municipal waste water treatment plants**

*Mrs. Veliana Todorova*

- New method for monitoring treating biomass in municipal waste water treatment plants
- Early detection of toxicity problems linked to influent water quality
- Optimizations of the performances and aeration conditions in aerobic bioreactors

##### **15h30 – 16h: Microbial safety for Reused Water**

*Prof. Martin Exner, Prof. Philippe Hartemann*

- Monitoring of performances of water filtration technologies for microbial proliferation. Which new Human risk are we attended for?
- Requirements for reused water quality
- How to implement efficient surveillance of microbial quality of reused water?

##### **16h – 16h30: General discussion and conclusion**