



Biological Investigation & Audits

to improve surveillance programs and control
of cooling towers and sanitary water

OGA™ kit: analytical tool
for the quantification of total active biomass by ATP-metry

↑
LEGIONELLA
RESULTS ABOVE
REGULATORY THRESHOLD
↓

Sanitary risk

Dispersion of Legionella in Water

DETECT INVISIBLE RISKS
TO ENSURE VISIBLE COMPLIANCE

↑
PREVENTIVE SURVEILLANCE
AND CONTROL OF THE INSTALLATION
BY THE OPERATOR
↓

Release of Viable Non-Culturable Legionella and Amoeba

Proliferation of Legionella and Amoeba in Biofilm

Introduction of microorganisms and nutrients
in the installation via make-up water



aqua-tools.com

Our way to manage sanitary risks
and improve environmental conformity.

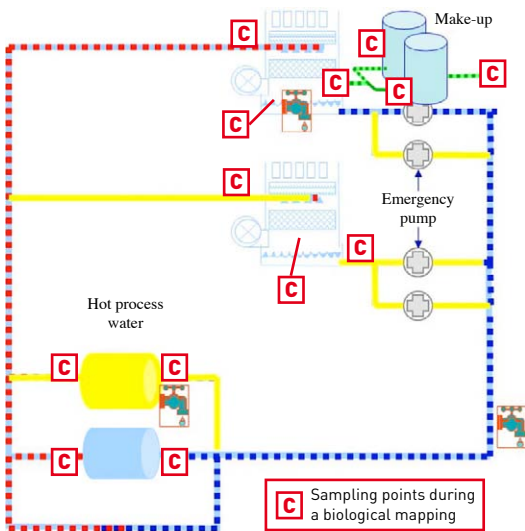
Aqua-tools: biological audit and investigation by ATP-metry

Schémas: Cimespace - Michèle Merchat

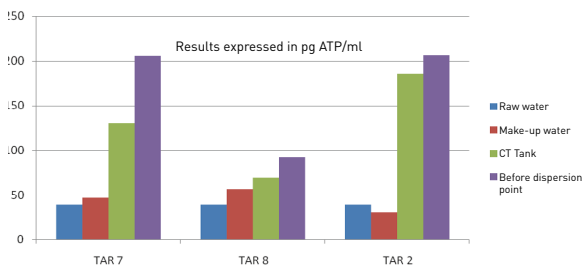


Elastic biofilm: detachment of flocs of micro-organisms

Schémas: Cimespace - Michèle Merchat



Water circuits don't show homogenous distribution of microbial population, qualitatively or quantitatively



During the last period of 12 months, the circuit including these 3 cooling towers has presented Legionella species contaminations higher than the regulation threshold of 1000 CFU/L (>12 000 CFU/L), non continuously. Biological mapping using QGA™ method showed decrease and instability of water microbial quality in cooling towers 2 and 7. These sectors require further investigation of the origin of bacterial disorder and re-orientation of the treatment strategies.

When microbiological drifts occur on an installation, it is necessary to take the right decisions concerning preventive and corrective actions in water treatment assurance of its efficiency on short and long term to prevent Legionella proliferation above regulatory thresholds.

Using 2nd generation ATP-metry Quench-Gone™ Aqueous (QGA™) kits, Aqua-tools performs a diagnostic investigation of active biomass present at the different points of an installation. Such a biological mapping allows a fast and methodical analysis of biological risks in order to:

- Identify the critical zones zones with high concentrations of microorganisms, showing the presence of uncontrolled biofilm
- Determine the parts of the installation showing increased risk for proliferation of Legionella and requiring chemical cleaning
- Optimize cleaning actions and evaluate their impact on built-up biofilm
- Validate efficiency of treatment strategies on the ecosystem of the installation
- Prevent sanitary risks and limit their environmental impact

Results are immediately available (6 minutes per sample) to allow same-shift problem solving -disinfection can be taken within the same day to secure the installation. Aqua-tools will provide a full report, presenting the results from the analysis, their interpretation and giving advice on further management of treatment strategies.

A complete installation mapping by QGA allows real-time risk identification for same-shift problem solving. This saves operator time, treatment costs, and provides you with peace of mind!

AQUA-TOOLS: ADDITIONAL SERVICES

TRAININGS (agreement N°: 11 78 80546 78)

Level 1: Theoretical and technical training on ATP-metry methods according to the applications requested
Level II: Advanced training – Implementing methodical analysis of biological risks with new analytical tools: ATP-metry for total biomass quantification and real-time PCR for Legionella (AFNOR T 90 471)

TECHNICAL ASSISTANCE AND EXPERTISE (according to the application)

Analysis and expertise regarding results obtained on your installation with ATP-metry or real-time PCR
Elaboration of specific protocols tuned to your installation and according to your needs;
Follow-up of the implementation of preventive and corrective actions on your installation;
Expertise on the efficiency of water treatment (in process or under validation);
Assistance in validation of new non-chemical treatments and management of sanitary risks.



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