



## ASSESSMENT OF MICROBIAL BARRIERS

Application of QMRA for drinking water safety planning of treatment and distribution

This two-day, thematic course provides an advanced approach to Water Safety Planning (WSP) related to treatment and distribution of drinking water. The approach is based on Quantitative Microbial Risk Assessment (QMRA). A microbial barrier is a treatment process or a physical barrier. The treatment barriers are assessed by combining information on raw water quality, efficiency of the treatment process and the acceptable risk of the consumer. The distribution system is analysed for risk of ingress of pathogens.

Today governments and health authorities worldwide demand that water supply companies implement quality assurance schemes. As a result, most water supplies have established water safety plans. Water safety plans shall be reviewed and improved on a regular basis.

In this course you obtain a theoretical basis for analysing the microbial barriers and controlling health hazards. The course takes WSP a step further and provide a tool for quantitative risk assessment, and provision of the documentation for a safe water supply.

### COURSE TOPICS

- Historical background and general principles for WSP
- Hazards and hazardous events
- Quantitative microbial risk assessment
- Characterization of raw water quality
- Determining the efficiency of existing microbial barriers
- Evaluating the health risk
- Determining treatment strategy
- Risk assessment of incidents in the distribution network
- Group work based on participants' cases

### TARGET GROUP AND PREREQUISITES

Drinking water utility managers, water safety team managers and members, and operating staff, as well as consultants.

It is a prerequisite that the participating water suppliers have implemented water safety plans and that consultants have a prior knowledge of WSP.

The participating utilities will be asked to provide information from their own utilities to be used as a basis for the group work.

### THE ACADEMY BY DHI

THE ACADEMY offers a palette of courses and capacity building packages designed to fit your needs and challenges. We offer standard and/or tailored training - face-2-face as well as tailored.

**MIKE Powered by DHI** courses focus on practical skills, hands-on exercises and teaching you how to get the most out of your software. These courses also enable you to understand the power of the MIKE tools for building decision support systems.

**Thematic courses** allow you to apply concepts, applications and decision support principles to the entire business process within current areas: aquaculture and agriculture, energy, climate change, flooding, coast and marine, surface and groundwater, urban water, industry, environment and ecosystems, product safety and environmental risk, etc.

**Our trainers** are experienced professionals, many of whom are recognised international experts in their fields. The use of highly skilled trainers guarantees the quality of THE ACADEMY courses.

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