

Designing Water Efficient Hot and Cold Supplies

Agenda

- 09:15 Arrival – Registration / coffee / tea
- 09:30 **Session 1a Introduction and basic issues** Traditional water systems in the UK, low pressure, high pressure. (two tap sinks). Water distribution systems, water consumption data, users' expectations. Wholesome water – what is it? Alternative waters. Types of water in the UK. Water grid option.
- 11:15 *Coffee / tea break (15 mins)*
- 11:30 **Session 1b Introduction and basic issues- continued** Water Regulations and Byelaws, Building Regulations and Standards, HSE ACoPs and guides, CIBSE Guide G
- Session 2 Hot Water** Hot water generation, energy and heat loss, choice of water heating system: storage, instantaneous, vented, unvented, thermal stores, HIUs, point of use. Hot water storage sizing
- 13:00 *Lunch (45 mins)*
- 13:45 **Session 3 Cold Water** Legionella risk minimisation – keeping cold water cold – layout, insulation and cooling (heat pumps), Supply improvement techniques, accumulators, pumps, pipes, water meters, softeners, conditioners and fridges, HSE issues, anti-stagnation layouts
- Session 4 System layouts** Importance of layout, problem areas, layout problems, pumped circulation, water hammer, dead legs and stagnation, Minimizing water run-off and legionella risks by design
- 15:00 *Coffee / tea break (15 mins)*
- 15:15 **Session 5 Sizing** Sizing factors and considerations, sizing options and methods, BS EN 806 and alternative Standards. CIBSE Guide methodology. Water demand – different appliances. Loading Units, pressure losses, LUNA project. Over sizing and under sizing.
- Session 6 Saving water** Retrofitting, WC options, flushability, taps, showerheads, baths, the future? Toilet reinvented, digital twins. Free information, other sources of information.
- 16:10 – 16.20 Quiz
- 16.20– 16.25 Answers to quiz
- 16.25-16.30 **Any other questions**

For more information about this course contact the training team:

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