



Water Efficiency Management Systems (ISO 46001) Course: Water Balances, Audits and Savings

18 – 22 April 2027

Dammam - Eastern Province five-star



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Ref: 1773_27284 **Date:** 18 – 22 April 2027 **Location:** Dammam - Eastern Province five-star **Fees:** 19500 SAR

Introduction:

Water efficiency management systems ISO 46001 training on water balances, audits and savings is a 5-day course for facility, utilities, estates and sustainability managers, ending with a Site Water Efficiency Management Plan. Sites in water-scarce climates pay for water they cannot account for, because unmetered branches, hidden leaks, cooling tower losses and drinking-quality water used where a lower grade would serve go unseen. Nominees already manage water consumption, utility budgets or building services and work through modelling builds on meter data, bills and site drawings. CoreConcept Training Center delivers this water efficiency management course.

Course Objectives:

- Establish the scope, water policy, roles and action plan of an ISO 46001 water efficiency management system for a site or estate
- Conduct a water review that identifies significant water uses and sets water performance indicators against a normalised baseline
- Build a site water balance from bills, meter readings and engineering estimates and locate unaccounted volumes
- Design a sub-metering plan and run walk-through audits and night flow tests to find leaks and waste
- Evaluate fixture retrofits, process water recovery and alternative sources such as greywater, rainwater and condensate
- Verify water savings against an adjusted baseline and report progress to management

Target Audience:

- Facility and estates managers responsible for water consumption and utility budgets across multi-building sites
 - Utilities managers in industrial plants responsible for process, cooling and boiler make-up water
 - Sustainability managers responsible for water targets and organisational water reporting
 - Building services managers responsible for plumbing, irrigation and HVAC water systems
 - Engineering managers in hospitals, universities and public buildings responsible for site water infrastructure
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Course Outline:

Day 1: Site Water Use Context and Current-State Assessment

- Water Bill and Tariff Analysis for Multi-Building Sites
- Reduce, Replace and Reuse Hierarchy for End Users
- Water Use Inventory by Building, Process and Activity
- Existing Meter Register and Reading Reliability Check
- Water Efficiency Maturity Self-Assessment for a Case Site

Day 2: ISO 46001 Management System Structure and the Water Review

- ISO 46001 Scope, Context and Interested Parties Analysis
- Water Policy, Top Management Roles and Responsibilities Matrix
- ISO 46001 Water Review Identifying Significant Water Uses
- Water Performance Indicators and Normalised Baseline Selection
- Water Objectives, Targets and Action Plan Register

Day 3: Site Water Balance, Sub-Metering and Audit Fieldwork

- Site Water Balance Spreadsheet From Inflows to Discharges
- Sub-Metering Plan Prioritising Cooling Towers, Kitchens and Irrigation
- Walk-Through Water Audit Checklist for Fixtures and Plant
- Night Flow and Minimum Flow Tests for Hidden Leaks
- Cooling Tower Cycles of Concentration and Blowdown Review

Day 4: Savings Options, Alternative Sources and Verification

- Low-Flow Fixture Retrofit Calculations and Pressure Management
- Process Water Recovery and Cascading Reuse Between Uses
- Greywater, Rainwater and Air-Conditioning Condensate Capture Screening
- Water Savings Verification Against an Adjusted Baseline
- Water-Efficient Design and Procurement Criteria for Equipment

Day 5: Modelling Build of a Case Site Water Efficiency Plan

- Case Campus Brief With Bills, Meter Logs and Drawings
 - Case Water Balance Reconciliation and Unaccounted Volume
 - Case Savings Register Ranked by Payback and Volume
 - Case Monitoring, Internal Audit and Management Review Schedule
 - Site Water Efficiency Management Plan Presentation and Challenge
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Skills You Will Gain:

- Water Balance Modelling
- Sub-Metering Design
- Water Performance Indicator Setting
- Leak Detection Testing
- Water Audit Fieldwork
- Alternative Water Source Screening
- Water Savings Verification
- Management System Documentation

Why Attend This Course:

- Deliver a Site Water Efficiency Management Plan to the facility director and sustainability committee for approval
- Decide which water uses to meter, which leaks to fix first and which savings measures to fund
- Avoid paying for unaccounted water, unverified savings claims and alternative-source projects that fail quality limits
- Coach maintenance staff and building operators with the audit checklist, balance template and meter register

Conclusion:

Back at work, the participant presents the Site Water Efficiency Management Plan to the facility director, the sustainability lead and the finance team. Management uses it to approve sub-metering investments, assign owners to each significant water use, fund the ranked savings measures and set water performance indicators for monthly review. After the first summer peak under the plan, the organisation should compare metered consumption, unaccounted volume and verified savings with the plan, then revise the measures and meters that fell short.

Frequently Asked Questions FAQ:

What should participants know before water efficiency management systems ISO 46001 training?

Participants should already manage or monitor water use in a building, plant or estate and be comfortable with spreadsheets. Anonymised water bills, meter readings or a site plumbing schematic help during the modelling build days.

How does water efficiency management systems ISO 46001 training differ from an energy management course?

An energy management course centres on electricity, fuel and equipment such as motors and chillers. This course deals with water only: water balances, sub-metering, leaks inside the site boundary, fixture and process water savings, and alternative sources such as greywater and rainwater.

Why is a water balance the starting point for water efficiency management systems ISO 46001?

A water balance shows where every cubic metre enters, is used and leaves the site. Without it, organisations cannot see unaccounted losses, rank significant water uses or set a credible baseline, so targets and savings claims rest on guesswork.

What does a participant take back from water efficiency management systems ISO 46001 training?

Participants return with a Site Water Efficiency Management Plan built in a case modelling exercise: a water balance template, sub-metering plan, water performance indicators, a ranked savings register and a monitoring schedule, ready to adapt to their own site.
