



PROCESS AND CHEMICAL ENGINEERING

Water Distribution Networks and Non Revenue Water

5 day course

Classroom, online or in-house

Course overview

Utilities across the region treat water to standard and then lose a large share of it in the network, through leaks that never surface, meters that under record and connections nobody is billing. This course covers recovering it. Delegates work through network hydraulics, pressure and the relationship between pressure and leakage that makes pressure management the highest return intervention available. District metered areas and the night flow analysis that quantifies loss are covered. The water balance and the split between real and apparent loss follow. Leak detection technique, pipe materials and repair are addressed. Metering, billing and the commercial side of apparent loss are covered. The course closes on asset condition, renewal prioritisation and on building a loss reduction programme that continues.

What you will learn

- Apply network hydraulics and the relationship between pressure and leakage
- Implement pressure management as a loss reduction measure
- Establish district metered areas and analyse night flow
- Construct a water balance and split real from apparent loss
- Apply leak detection techniques and repair effectively
- Address metering, billing and commercial loss
- Prioritise asset renewal and sustain a loss reduction programme

Who should attend

- Water utility and municipal engineers
- Non revenue water and loss reduction teams
- Distribution operations and maintenance staff
- Metering and billing personnel
- Managers accountable for utility performance

Course outline

- 01 Treated to standard, lost in the network
- 02 Network hydraulics and pressure
- 03 Pressure management and leakage
- 04 District metered areas
- 05 Night flow analysis
- 06 The water balance and loss components
- 07 Leak detection, pipes and repair
- 08 Metering, commercial loss and renewal prioritisation

Upcoming dates

Dates	Venue	Format	Fee per delegate
2 to 6 November 2026	Online	Online	R8,500
30 November to 4 December 2026	Kampala, Uganda	Classroom	USD 1,325
1 to 5 February 2027	Johannesburg, South Africa	Classroom	R19,950



Fees and how to register

This 5 day course is **R8,500** per delegate online, **R19,950** in the classroom in South Africa, Botswana, Namibia, Lesotho and Eswatini, and **USD 1,325** in the classroom elsewhere in Africa. In-house training is quotation on request. Book 2 or more delegates on this course and save 10%.

To register or request an in-house proposal, visit www.afrisciencegroup.com, email info@afriscience.co.za, or WhatsApp us on **+27 63 479 1136**.

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