



Accredited Africa Training Institute for Capacity Development

Unit FO409, Hatfield Plaza · 1122 Burnett St, Hatfield 0028 · Pretoria, Gauteng · South Africa

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COURSE BROCHURE

Risk Management in Water Services Works

Custom Courses / Environment Monitoring, Evaluation & Research

Unit Standard AATICD-0261 · NQF Level 5 · 20 Credits · 10 Days

COURSE OVERVIEW

This course equips learners with the knowledge and skills to identify, assess, and manage risks specific to water services works, including water treatment, distribution, and wastewater systems. It covers legislative frameworks, hazard identification, risk mitigation strategies, and emergency response planning to ensure safe and compliant operations.

Category	Custom Courses
Subfield	Environment Monitoring, Evaluation & Research
Unit Standard	AATICD-0261
Accreditation	SAQA Accredited · NQF Level 5 · 20 Credits
Duration	10 days
Training Method	Online, On-Campus, In-House
Certificate	Issued via AATICD LMS – verifiable online

LEARNING OUTCOMES

- Identify and classify potential hazards and risks in water services works
- Apply relevant legislation and standards (e.g., OHS Act, SANS) to risk management processes
- Design risk assessment methodologies tailored to water treatment and distribution systems
- Implement risk control measures and monitor their effectiveness
- Evaluate emergency preparedness and response plans for water services incidents

WHO SHOULD ATTEND

- This course is designed for water services managers, engineers, technicians, and safety officers involved in the planning, construction, operation, or maintenance of water services infrastructure.

COURSE OUTLINE

Day 1: Introduction to Risk Management in Water Services

- Overview of water services works in South Africa.
- Legal and regulatory context: Water Services Act, SANS 241, SAQA unit standards.
- Fundamental risk management principles (ISO 31000).
- Types of risks: operational, environmental, health, financial.
- Introduction to risk assessment methodologies (qualitative vs quantitative).
- Case study: Historical water service failures and lessons learned.

Day 2: Risk Identification and Hazard Analysis

- Hazard identification techniques: HAZOP, FMEA, SWIFT.
- Risk identification in water treatment, distribution, and storage.
- Chemical, biological, and physical hazards.
- Infrastructure and operational hazards.
- Human factors and organizational risks.
- Practical exercise: Hazard identification for a typical water treatment plant.

Day 3: Risk Analysis and Evaluation

- Risk analysis methods: qualitative, semi-quantitative, quantitative.
- Developing and using risk matrices.
- Consequence and likelihood assessment.
- Risk evaluation: ALARP principle.
- Uncertainty and sensitivity analysis.
- Group activity: Risk analysis for a water distribution system.

Day 4: Risk Treatment and Control Measures

- Risk treatment options: avoid, reduce, transfer, accept.
- Hierarchy of controls: elimination, substitution, engineering, administrative, PPE.
- Engineering controls: barriers, disinfection, backflow prevention.
- Administrative controls: procedures, training, signage.
- Emergency preparedness and contingency planning.
- Workshop: Develop control measures for identified risks.

Day 5: Monitoring and Review of Risks

- Monitoring plans: what, when, how.
- Key risk indicators (KRIs) for water services.
- Risk reporting and communication.
- Internal audits and management reviews.
- Corrective and preventive actions (CAPA).
- Case study: Review of a water quality monitoring program.

Day 6: Water Quality Risk Management

- Water Safety Plans: framework and implementation.
- Hazard analysis and critical control points (HACCP) in water treatment.
- Risk assessment for chemical and microbiological contaminants.
- Sampling and testing strategies.
- Regulatory compliance: SANS 241 drinking water quality.

- Practical exercise: Develop a WSP for a small water system.

Day 7: Infrastructure and Asset Risk Management

- Asset management and risk-based maintenance.
- Risk assessment for pipelines, pumps, and reservoirs.
- Condition assessment techniques.
- Financial risk: cost of failure vs investment.
- Construction risk management (safety and quality).
- Group activity: Risk-based inspection plan for a treatment plant.

Day 8: Operational Risk and Safety

- Operational risk assessment for water services tasks.
- Confined space entry, working at height, electrical safety.
- Personal protective equipment (PPE) and safety equipment.
- Permit-to-work systems.
- Incident investigation and reporting.
- Practical: Conduct a job safety analysis (JSA) for a maintenance task.

Day 9: Emergency and Disaster Risk Management

- Emergency planning for water services (e.g., floods, droughts, contamination).
- Business continuity management.
- Climate change risks: water scarcity, extreme weather.
- Stakeholder communication and public warning.
- Tabletop exercise: Response to a major water contamination event.
- Review of case studies: real emergencies in SA water services.

Day 10: Integration and Final Assessment

- Synthesis of course content.
- Developing a risk management plan for a water services works.
- Presentation of group projects.
- Peer review and feedback.
- Written and oral assessment.
- Course evaluation and certification.

ASSESSMENT & CERTIFICATION

Delegates are assessed through exercises and a final test. A mark of **50% or above** earns an **AATICD Certificate of Completion**, issued digitally with a unique verification code. This course carries **20 NQF credits** at **NQF Level 5**.

PRICING (PER DELEGATE, EX-VAT)

Delegates	Training Method	Price per Delegate	Total
1	Online	R 37,600.00	R 37,600.00
1	In-House	R 48,800.00	R 48,800.00
1	On-Campus (Pretoria)	R 56,400.00	R 56,400.00

UPCOMING SESSIONS

Start	End	Method	Venue
11 Aug 2026	24 Aug 2026	On-Campus	Durban, South Africa
11 Aug 2026	24 Aug 2026	On-Campus	Abu Dhabi, UAE
19 Aug 2026	01 Sep 2026	On-Campus	Harare, Zimbabwe
19 Aug 2026	01 Sep 2026	On-Campus	Shenzhen, China
27 Aug 2026	09 Sep 2026	On-Campus	Victoria Falls, Zimbabwe
27 Aug 2026	09 Sep 2026	On-Campus	Bangkok, Thailand
04 Sep 2026	17 Sep 2026	On-Campus	Lusaka, Zambia
04 Sep 2026	17 Sep 2026	On-Campus	London, UK

Contact us if no suitable date is listed – on-demand sessions can be arranged for groups.

HOW TO GET A QUOTE OR APPLY

1. **Get an instant quotation online:** visit www.aaticd.co.za, open the page for this course (Unit Standard AATICD-0261) and click **Get A Quote / Apply**. Select your training method and number of delegates – your quotation is generated immediately and emailed to you with the course brochure attached.
2. **Apply by email:** send the course title, your preferred training method (Online, In-House or On-Campus Pretoria), the number of delegates and your preferred dates to apply@aaticd.co.za – our team will reply with a formal quotation.
3. **Apply by phone or WhatsApp:** call +27 12 004 8389 or WhatsApp +27 65 077 6310 and we will prepare your quotation and reserve your seats.
4. **Confirm your booking:** accept the quotation and settle the invoice. As soon as payment is confirmed your delegates are enrolled and receive their AATICD LMS login details by email, along with joining instructions for their chosen training method.

Group discounts apply automatically – the more delegates you enrol, the lower the price per delegate. No payment is required to request a quotation.

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