

Technical Colleges / Training

Well Drillers, Water, Water Distribution, Biological and P/C Wastewater

Central Carolina Technical College	803-778-1961
Allstar Training, Inc. (Online Training CE's for Well Drillers/Pump Installers Website Address: www.allstarce.com)	817- 385-1136 Michelle Barham Email: michelle@allstarce.com
Trident Technical College, Charleston	843-574-6152
South Carolina Rural Water Association (SCRWA)	864-833-5566
York Technical College	803-981-7020
360 Training	888-360-8764 EXT 106 www.360training.com
Approved Environment, Inc. www.approvedce.com also www.approvedenvironment.com	877-241-9858 Contact: Ann Bersbach
Digital-2000 (Water/Wastewater CEU) Online training	800-334-1523 www.publicagencysafety.com
Water & Wastewater Online Courses	877-378-8111 Water-Otter.com Contact: Rex Slack 804-283-6292 Rex@Water-Otter.com
ZARATHOM On Line Training	1-844-927-2846 Zarathom.com
Wastewater Courses Mathematics for Wastewater Treatment Importance of Wastewater Treatment Plant Maintenance Wastewater Treatment Process	843- 287-1460 Rasmussen Environmental Services Contact: Steve Rasmussen rasmul@live.com
Rogers & Callcott Engineers	864-232-1556 See Attached Brochure



Environmental & Safety Compliance Training

Presented by Ben O'Dell, CHMM

Manager of Environmental Compliance

Services Rogers & Callcott Engineers

426 Fairforest Way
Greenville SC 29607

For more information, call 864-232-1556

10 Hr OSHA Safety & Health Standards for General Industry

The *General Duty Clause* of the Occupational Safety & Health Act of 1970 required employers to furnish a place of employment free from recognized hazards, and comply with occupational safety and health standards promulgated under the Act. This 10 hour program will provide an overview of OSHA's general industry standards and the requirements of the more frequently referenced standards.

DOT—Hazardous Materials Transportation 8 Hours

This course is designed to satisfy the DOT requirements for employees involved in the shipping, receiving or transporting of hazardous materials as contained in Subpart H of 49 CFR 172. The training includes: general awareness/familiarization, function specific, safety and security responsibilities. Topics covered will include: hazardous material tables, shipping papers, marking and labeling, placarding, packaging, emergency information and security.

6 Hr—Wastewater Review/Biological or Physical Chemical (Core Competency)

These courses are designed to comply with the continuing education requirements for renewal of biological or physical/chemical wastewater certification. Specifically, the topics covered during this training will satisfy the requirement for 6 hours of training in the area of core competency. Topics include operations, troubleshooting, process control, and laboratory.

HAZWOPER Annual Refresher 8 Hours

This training course is designed to satisfy the requirement for employees trained under 29 CFR 120 paragraph (q) to receive annual refresher training. Topics include review of the standard, PPE, hazard recognition and assessment, instrumentation and incident management.

RCRA—Hazardous Waste Management 8 Hours

This course is designed to meet the annual RCRA training requirements in 40 CFR 262.34(a), 265.16 for initial or refreshed training. Topics include waste identification, on-site management, shipping, emergencies and releases, and treatment and disposal requirements.

HAZWOPER Emergency Response Operations Level 24 Hours

This training is designed for employees responding to worksite releases at the Operations Level as defined in 29 CFR 120 paragraph (q). Training for employees who respond to contain and control in a defensive manner. Topics include control and containment techniques, hazard and risk assessment techniques, PPE selection and decontamination.

These courses can be presented at our facility or yours.
For more information contact Ben O'Dell or Elaine Schwerthoffer at 864-232-1556



Melissa Brothers

Train 2 Retain Resources, LLC 502-320-4706

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“Training Today’s Operator for Tomorrow and Tomorrow’s Operator Today”

Click to open Brochure

WASTEWATER MATH SOLUTIONS-PRESENTED BY DAN THEOBALD

As you know Wastewater Math Solutions are valuable training tools!

I have a YouTube Channel with Playlist of *Wastewater Math Solutions* & some “Math Solutions” are embedded in articles I have *published* on *Water Online* Web Site in a Series of “*Math Solutions*”.

New videos should be published at least once weekly on my YouTube Channel

New articles should be published at least once monthly on Water Online Web Site!

View the “*Math Solutions*” by clicking any link below:

YouTube Channel:

[Wastewater Dan’s Math Solutions on YouTube](#)

Water Online:

[Wastewater Dan’s Math Solutions article “Intro”](#)

[Wastewater Dan’s Math Solutions article “Waste Activated Sludge”](#)

“*Math Solutions*” also available for the following:

- 1-What is the actual compliant maximum milligram per liter of BOD with Permit Flow Limit of 2,200,000 Gallons per day and a permitted Discharge of 800 pounds BOD per day?
- 2-How many gallons of sludge can be applied to one acre of land?
- 3- Alkalinity required for conversion of ammonia?
- 4- What is the Trickling Filter Recirculation Ratio?
- 5- Having no short circuiting, when did the metered wastewater enter the clarifier?
- 6- Calculate the pounds of lime required per day!
- 7- Determine suspended solids removal efficiency and the concentration factor!
- 8- What is the time required to fill the Tank & how many pounds of Total Metals in the Tank?
- 9- Calculate Press Sludge Cake Solids Produced in Cubic Yards!
- 10- How many mL/min of liquid alum will be needed in the waste stream to produce the jar test results?
- 11- What percentage is the side stream Suspended Solids to the influent load of the secondary treatment plant?
- 12- Calculate the flow rate of wastewater in cubic feet per second!

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Dan Theobald is the owner of Environmental Services and is a professional Wastewater and Safety consultant and trainer. Dan, known in the industry as “Wastewater Dan”, has twenty years of hands-on experience operating many variants of wastewater treatment processing units, and is a trainer in Wastewater & Industrial Health & Safety topics. He serves as an active consultant to a variety of industries, achieving and maintaining improved wastewater treatment at reduced cost.



Instructor Bio

Robert W. Thompson is a retired General Manager, with over 35 years in the water industry. His educational background is in engineering and administration. He was a member of the AWWA for over 25 years.

William R. Thompson is currently a General Manager and has over 37 years in the water industry, currently holds an AWWA water distribution operator grade 4 certification, has been a member of the AWWA for over 35 years, was a member of the AWWA Certification Committee for 10 years. Currently holds a State of California Grade 5 Water Distribution Operator Certification and a State of California Grade 3 Water Treatment Operator Certification. Bill has instructed for over 20 years with a teaching certificate from UCLA.

Course Inventory South Carolina August 2015

Source Water – Objective of the source water course is to provide the operator with a general understanding of the various sources of raw water and their water quality aspects. The course will describe the hydrologic cycle, surface water and ground water treatment and protection.

Fundamentals of Cathodic Protection – The objective of this course is to provide the operator with a general understanding of how cathodic protection is used to protect metal infrastructure used in the water industry from corrosion failure. The course will provide definitions and descriptions of the types of corrosion and the protective technology available.

Basic Electricity – The course will provide the water operator with a basic understanding of the interaction of electricity and water. The operator will explore the basics of the electrical components needed to provide energy to the water facilities that provide potable drinking water.

Trench Safety – This course will cover trench safety and excavation rules, types of shoring and soil types. The operator will be provided safety measures and considerations associated with excavation safety.

Confined Space Safety - This course will cover confined space safety standards and rules. The operator will be provided safety measures and considerations associated with confined space entry safety. The course will cover establishing a written program, required equipment, and record keeping.

Chlorine Disinfection - The objective of this course is to provide the operator with a general understanding of chlorine disinfection. The operator will be introduced to the different types of chlorination used in the water industry. The course will provide definitions, safety, handling, dosage, characteristics, leak detection, equipment, and an understanding of residual levels.

Excavation The Law - This course will cover trench safety and excavation rules as they relate to marking prior to starting an excavation. The operator will be provided safety measures and considerations associated with proper preparation prior to digging for repairs and new installations.

Introduction to Utility Budgeting – The course will assist the operator in understanding water utility operational and capital improvement budgeting. The course provides examples of detailed funding balances and line item details. The operator will gain a basic understanding of revenues and expenditures used in the budget process.

Introduction to Arsenic – The course provides the water operator an overview of where arsenic originates regulatory requirements, treatment practices, and best available technologies.

Safe Drinking Water Act – The course provides the operator with a history of the act, an overview of regulatory requirements and an understanding of the amendments and how they affect all water agencies.

Customer Service Basics- Customer service is one of the most important aspects of a water utility, this course will guide the operator through the basics of customer service.

Basic Water Math – This course introduces the operator to water mathematics and provides test questions with problem solving.

Operator Responsibilities – This course introduce the water operator to the daily, weekly, monthly and quarterly duties of a certified water operator.

Introduction to SCADA – This course will provide the operator with a general understanding of the components of a SCADA or telemetry system, including required instrumentation, terminology, and how develop and operate a system efficiently.

Consumer Confidence Report Regulations – The course describes the Safe Drinking Water Act regulations pertaining to the annual reporting requirements, and the required elements and how to prepare an annual consumer confidence report.

Bacteriological Sampling – The course provides the operator with an overview of the sampling procedures, rules and regulations, quality assurance and quality control of a sample from the field through the final laboratory analysis.

Introduction to Conventional Water Treatment – The course guides the operator through each of the conventional treatment processes, provides an understanding of each individual component from raw water influent screening through disinfection and distribution.

Source Water Assessment & Protection – This course provides the operator with an understanding of source water assessment evaluations, and measures used to protect our most precious resource.

Understanding Drawdown – The lesson describes how to accurately gather ground water well static and pumping levels, how to calculate drawdown, specific yield, and pumping capacity.

Bacteriological Sampling Regulations – This course provides the operator a history of bacteriological sampling regulations, an understanding of how they apply, and the requirements and steps necessary if notifications are required in the event of violations.

Introduction to Cross Connection/Backflow – This course introduces the operator to the history of the regulations, understanding potential hazards and the assemblies required to protect the quality of the water in the distribution system.

Distribution System Flushing – This course provides the operator with an understanding of the different types of flushing, equipment required, step-by-step process, water quality results, and fire hydrant maintenance.

Pumps – The course describes the types of pumps utilized in the water industry. The operator will gain an understanding of the terminology, definitions, and the specific parts of a water pump. The course describes general maintenance and how to inspect, service, and properly maintain a pump. The lesson also describes the various drivers that power the pumps.

Water Audits – The course guides the water operator through the water audit process, using billing data to establish initial background information regarding a properties historical usage. The course will explain initial observation, property owner information, education, water conservation opportunities, usage calculations, and follow up record keeping.

Math – Linear/Area/Volume - This course provides the water operator with the tools to calculate perimeter, circumference, area of shapes, and volume. The course explains formulas, provides problem solving and sample test questions.

Filtration – After completing this course an operator should have an understanding of the filtration process, the types of filters used in the industry. The course will describe operation challenges, testing, and safety associated with water filtration.

Aeration – This course will describe the aeration process, constituents removed through aeration, types of aerators, water quality, operations, testing, safety, and record keeping.

Coagulation/Flocculation – This course will describe the methods and chemicals used to induce coagulation and flocculation, their advantages and disadvantages, testing, coagulant aids, safety, and problem solving.