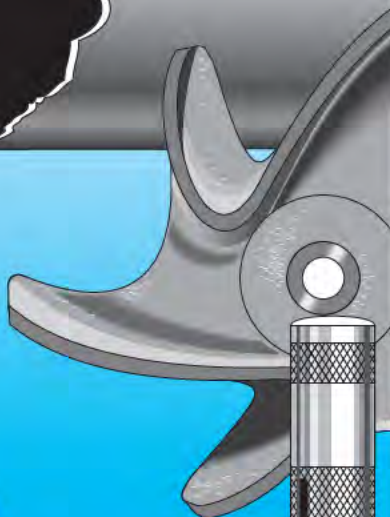
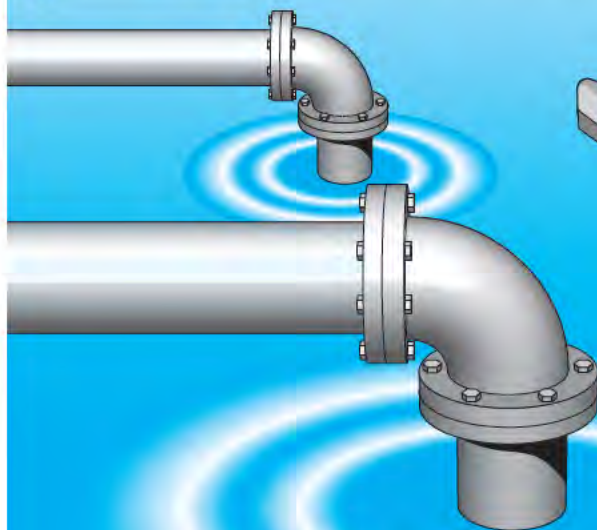
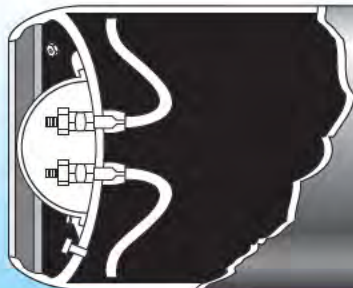
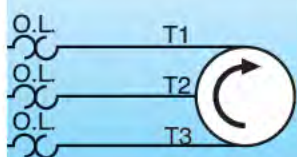
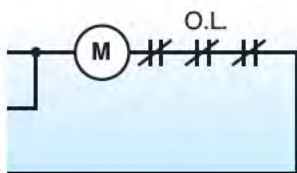


# AC Publications AR Catalog



**AC Publications**

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E-mail: [info@acrp.com](mailto:info@acrp.com) • Web Site: [www.acrp.com](http://www.acrp.com)

## WELCOME TO ACR PUBLICATIONS

ACR Publications was established in 1986 to provide reference manuals and training materials for operations, maintenance, and management of water and wastewater systems.

Our material is skillfully planned with learning in mind. Each manual is

designed for easy reference with high quality illustrations. Excellent writing and page format make our books easy to read. The techniques used in ACR Publications manuals are highly effective and accommodate different learning styles.



## ABOUT ACR PUBLICATIONS INSTRUCTIONAL MATERIALS

ACRP training materials are field tested in presentations throughout the western United States. Our materials are used to present commercial and in-house workshops as well as college courses. Discounts are available on instructional material when purchased with a specific quantity of text books. (*see order information*)

Each set of materials includes:

- Instructor's Guide
- Pre and post tests
- Visual support (may include slides, overheads, PowerPoint™)

### Development Criteria

Our materials are developed with ease of presentation and participant interaction in mind.

### Instructor's Guide

Each instructor's guide contains:

- Overview notes on effective use of training materials
- Course delivery sequence
- Timelines for delivery
- Pre and post test instruction
- Course prerequisites
- List of support materials and suggested reference material
- Participant worksheet answers

The instructor's guide and pre & post test are supplied in hard copy and as pdf files on a CD.

### Visual Support

PowerPoint™ slides are supplied for most of the books. However, when overheads are supplied they are provided on a CD as pdf files with a colored background so they can be displayed on a LCD projector. Color photos are supplied in 300 dpi format and organized in catalogs.

## ABOUT THE AUTHORS

### **Skeet Arasmith**

Skeet has over 30 years of experience as a waterworks operator, water superintendent, and international trainer and consultant. He is the author of numerous waterworks training materials. His educational events on water and wastewater topics throughout the United States provide him the opportunity to receive valuable feedback from participants. This pertinent information is incorporated into each textbook.

### **George C. Mason**

George has over 30 years experience as a waterworks operator and 18 years experience as a math instructor. George presents math classes at numerous waterworks functions.

### **Holly DeRamus**

Holly has been working with public works employees for sixteen years. She develops training for topics within the technical, mechanical, and regulatory aspects of the public works arena. Holly is an instructor in the water and wastewater program at Linn-Benton Community College.

### **Rolfe Stearns**

Rolfe has developed instructional materials and delivered technical training to municipal and tribal utility operators and managers during the last eight years. His expertise is planning, finance, safety, and operational management.

## ABOUT ACR PUBLICATIONS CORRESPONDENCE COURSES

ACR Publications offers an opportunity to earn Continuing Education Units at home with our Correspondence Courses. These courses allow you to proceed at your own pace, studying the material when and where you prefer. Simply read through each lesson, answer a multiple choice test, and mail the test to ACRP for grading. It's that easy!

Correspondence Courses include a copy of a student manual and participant's guide. The participant's guide provides thorough instruction for course completion.

Courses are available for "Introduction to Small Wastewater Systems" and "Introduction to Small Water Systems."

## CUSTOMER INFORMATION

**Please refer to the order form in the back of this catalog or contact us at:**

**Toll free** [800.433.8150](tel:800.433.8150)

**Phone** [541.928.6199](tel:541.928.6199)

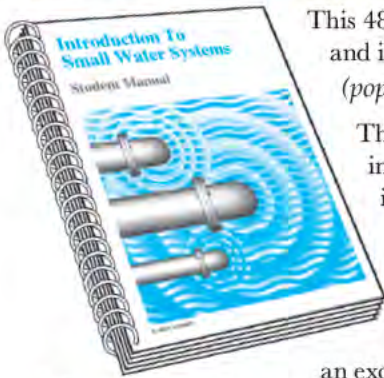
**Fax** [541.926.3478](tel:541.926.3478)

**E-Mail** [info@acrp.com](mailto:info@acrp.com)

**Web Site** [www.acrp.com](http://www.acrp.com)

# Introduction to Small Water Systems

by Skeet Arasmith



This 487 page book contains over 500 original illustrations and is designed specifically for small water systems (populations of 10,000 or less).

This manual is field tested and reviewed by operators, instructors, and regulatory agency staff. The field test included 3 and 4 day workshop, multi-week course, correspondence course, and individual certification preparation.

Any water facility will find this text a valuable resource to add to their information library and it is an excellent preparation tool for those seeking certification at Treatment or Distribution levels OIT and I.

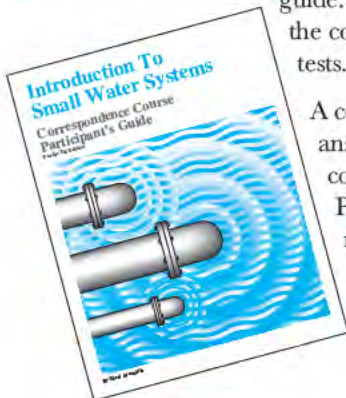
## Contents:

- Introduction to Drinking Water Systems
- Basic Science Concepts
- Water Sources
- Treatment
- Distribution Systems
- Pumping Systems
- Safety
- Regulations and Monitoring
- Management Considerations
- Math

## Introduction to Small Water Systems Book \$62.<sup>00</sup>

## Correspondence Course:

The Correspondence Course uses the student manual and a 108 page participants guide. The participants guide contains directions for completing the course, along with answers to lesson worksheets and lesson tests.



A course is completed by reading through each lesson, answering questions and checking your answers. Then, complete a multiple choice test and send to ACR Publications where it will be graded and your results returned to you.

The key information needed for OIT, and level I water distribution and water treatment exam are contained in this course.

## Correspondence Course with 4.0 CEUs \$140.<sup>00</sup>

# Introduction to Small Water Systems – Instructor’s Materials

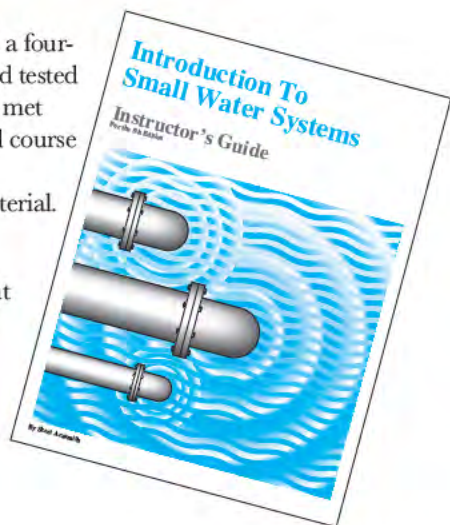
by Skeet Arasmith

This material was designed and field-tested as a four-day workshop. In addition, the course was field tested as an extended course, where the participants met once each week for nine weeks. This extended course provided an excellent opportunity for the participants to read, review, and apply the material.

## Instructor’s Guide:

The instructor’s guide is a 85 page document containing the following elements:

- Course sequence
- Course outline & timelines
- Lesson objectives
- List of needed support materials
- Answers to the worksheets
- 100 question post test

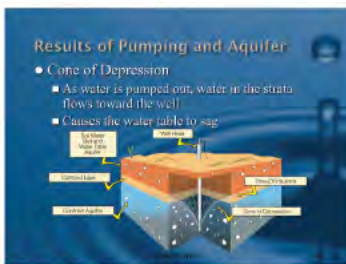


**Instructor’s Guide**      **\$15.00**

## Instructor’s Packet:

The instructor’s packet for this textbook includes 978 PowerPoint™ slides, and 137-digital color photos, a pdf version of the Instructor’s Guide, a pdf version of the post test, all of a CD. A hard copy of the Instructor’s guide is included.

**Instructor’s Packet \$750.00**



# Operation of Water Sources

## O & M of Small Water Series

by Skeet Arasmith



*Operation of Water Sources* was written to provide instruction and support for those individuals responsible for the operation of surface and groundwater sources. This manual is part of a series being developed for operators and managers of water systems serving populations of 10,000 or less. This 373 page text is designed for learning and contains over 330 custom illustrations to maximize understanding of concepts and details. This manual delivers brief, concise background information linked to specific step-by-step procedures.

This manual is an ideal reference source and study text for those seeking certification in levels II and III.

### Contents:

- Hydrology – Impact of rock and soils in water quality, identification of source location using GPS, PLSS and USGS well and spring numbering system. Physical description of watersheds, aquifer types including fresh water lens and springs. Groundwater hydraulics and the impact of pumping on groundwater movement.
- Surface Water Operations – Watershed management, water rights, source protection, data collection, flow measurements, water quality data, routine operations, storage facilities, dam inspection procedure, intake structures, settling basins, springs, roof catchments systems, and assessment program.
- Groundwater Operations – Finding groundwater, types of wells, well location considerations, well components, well house components, source protection, groundwater under the influence, routine well operations, aquifer and well pump data collection and analysis, start-up, shut-down and well abandoning considerations.
- Pumping Systems – Pump types, pump piping system components, pump piping systems, pump electrical systems, pump electrical system safety, normal operations, and typical problems.
- Transmission Lines – Components, PRV stations, flow meters and meter reading, routine operations including line break repairs.

**Operation of Water Sources \$64.<sup>00</sup>**

# Operation of Water Sources Instructor's Materials

by Skeet Arasmith

This material was designed as a three-day workshop.

## Instructor's Guide:

The instructor's guide is a 99 page document containing the following elements.

- Course sequence
- Course outline & timelines
- Lesson objectives
- List of needed support materials
- Description of each of the 936 PowerPoint™ slides and the 242 photos
- Answers to the worksheets
- Pre and Post tests

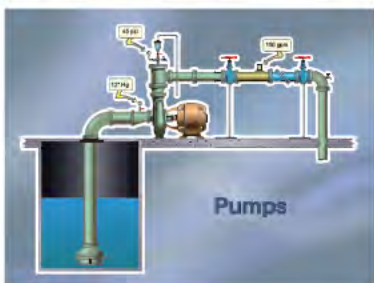
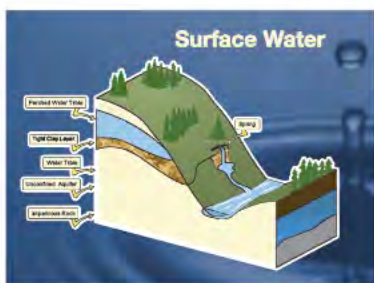


**Instructor's Guide \$20.00**

## Instructor's Packet:

The instructor's packet for this textbook includes 936 PowerPoint™ slides divided into five lessons and 242 additional digital color photos, a pdf version of the Instructors Guide, a pdf version of the pre and post test, all on a CD. A hard copy of the Instructor's guide is included.

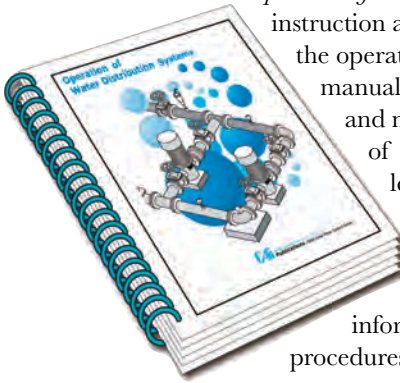
**Instructor's Packet \$720.00**



# Operation of Water Distribution Systems

## O & M of Small Water Series

by Skeet Arasmith



*Operation of Water Distribution Systems* was written to provide instruction and support for those individuals responsible for the operation of small water distribution systems. This manual is part of a series being developed for operators and managers of water systems serving populations of 3,300 or less. This 531 page text is designed for learning and contains over 524 custom illustrations to maximize understanding of concepts and details.

This manual delivers brief, concise background information linked to specific step-by-step procedures.

This manual is an ideal reference source and study text for those seeking certification in levels II and III.

### Contents:

- The Distribution System
- The Piping System
- Distribution System Valves
- Fire Hydrant Operation & Inspection
- Distribution Storage
- Booster Station Operation
- Customer Services
- Safety Considerations
- Inspection & Monitoring the System
- Meters & Gauges
- Appendix

**Operation of Water Distribution Systems \$88.<sup>00</sup>**



# Operation of Water Distribution Systems Instructor's Materials

by Skeet Arasmith

This material was designed as a five-day workshop.

## Instructor's Guide:

The instructor's guide is a 124 page document containing the following elements.

- Course sequence
- Course outline & timelines
- Lesson objectives
- List of needed support materials
- Description of each of the 1,450 PowerPoint™ slides and the 352 digital photos
- Answers to the worksheets
- Pre and Post tests



**Instructor's Guide \$20.00**

## Instructor's Packet:

The instructor's packet for this textbook includes 1,450 PowerPoint™ slides, 352-digital color photos, a pdf version of the Instructor's Guide, a pdf version of the pre and post test, all on a DVD. A hard copy of the Instructors guide is included.

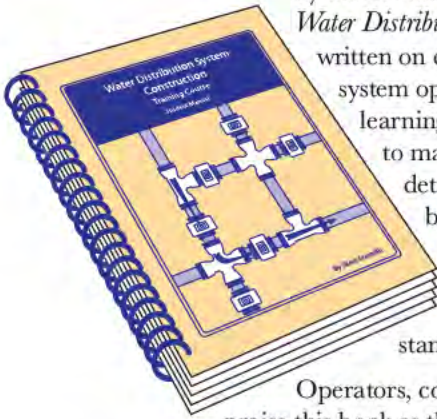
**Instructor's Packet \$720.00**



## Water Distribution System Construction

by Skeet Arasmith

*Water Distribution System Construction* is the only manual written on construction techniques for distribution system operators. This 387 page text is designed for learning and contains over 350 custom illustrations to maximize understanding of concepts and details. This manual delivers brief, concise background information linked to specific step-by-step procedures. Techniques conform to pertinent sets of published construction standards including the standards produced by AWWA.



Operators, construction crew members and their leaders praise this book as the best resource tool available to promote consistent, low-cost construction techniques understood by workers at all levels. This manual is an ideal reference source and study text for those seeking certification in levels II through IV.

### Contents:

- Construction Pre-planning
- Implementing the Construction Plan
- Blueprint Reading
- Construction Safety
- Traffic Control
- Pipe Materials
- Trenching Techniques
- Cave-in Protection
- Pipe Laying Procedures
- Hydrants, Valves, and Other Appurtenances
- Thrust Blocks
- Corrosion and Corrosion Control
- Bedding, Backfill and Clean-up
- Disinfection and Testing

***Water Distribution System Construction \$60.<sup>00</sup>***

# Water Distribution Construction Instructor's Materials

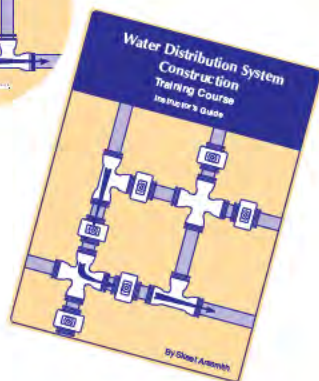
by Skeet Arasmith

This material was designed and field-tested as a three-day workshop. In addition, the course was field tested as an extended in-house training program.

## Instructor's Guide:

The instructor's guide is a 79 page document containing the following elements.

- Course sequence
- Course outline & timelines
- Lesson objectives
- List of needed support materials
- Description of each of the 437 overhead transparencies and the 221 photos
- Answers to the worksheets
- Pre and Post tests

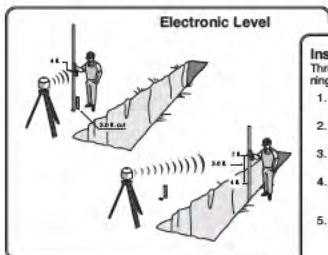


**Instructor's Guide \$15.00**

## Instructor's Packet:

The instructor's packet for this textbook includes 437-B & W overhead masters as pdf files, 221-digital color photos, a pdf version of the Instructor's Guide, a pdf version of the pre and post test, 11 X 17 pdf versions of the blueprints, a variety of manufactures information all on a CD. A hard copy of the Instructor's guide is included.

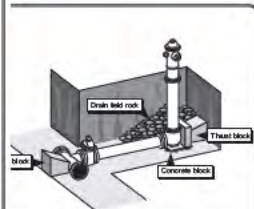
**Instructor's Packet \$560.00**



### Installation - DCIP

Three people - one in ditch, one controlling pipe, one running the machine

1. Measure the center of the pipe and place the clamp on the pipe.
2. Connect the clamp to the line from the backhoe.
3. Take hold of one end of the pipe.
4. Signal the backhoe operator to slowly pick up the pipe.
5. With the pipe in the air (at about waist high) check the pipe for foreign objects and remove them.



# ***Fire Hydrants, Installation, Operation & Maintenance***

by Skeet Arasmith



Fire Hydrants, Installation, Operation & Maintenance is a 156 page manual that includes 175 original illustrations that provide clear depictions of wet barrel and dry barrel components, hydrant operation and repair. This manual was developed based on 40 years experience. The contents have been field tested in on-site workshops. Included are step-by-step inspection and maintenance procedures that can be used as stand-alone instructions or as a compliment to the instructions provided by the manufacture.

## **Contents:**

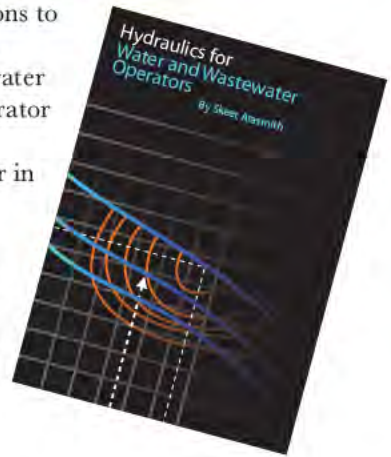
- Historical Perspective
- Hydrants – Purpose and Types
- Hydrant component terminology
- Normal hydrant operations
- Hydrant data collection and record keeping
- Hydrant follow measurement
- New hydrant installation
- Normal maintenance and repair of hydrants
- Common fire hydrant problems and solutions

***Fire Hydrants, Installation, Operation & Maintenance* \$30.<sup>00</sup>**

# *Hydraulics for Water and Wastewater Operators*

by Skeet Arasmith

A 265-page text book containing 220 illustrations to provide a clear understanding of the common hydraulics issues that impact water and wastewater operators. This text was designed with the operator in mind rather than the design engineer. The material was originally organized by the author in order to teach a twelve-week hydraulics to operators as a local community college. Each chapter or lesson in the book includes sample problems and solutions. We know of no other text that provides this level of application and clarity.



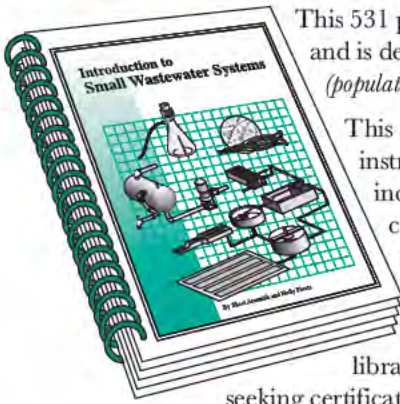
## **Contents:**

- Hydraulics The basics
- Liquids at rest
- Flow in closed conduits –Includes Darcy-Weisbach, Hazen and Williams and System analysis as proposed by Hardy Cross
- Pump hydraulics, including the use of pump curves
- Flow in open channels – Includes the use of Ketter and Manning formulas, estimating pipe sizes and flow measurements in open channels

*Hydraulics for Water and Wastewater Operators* \$46.<sup>00</sup>

# Introduction to Small Wastewater Systems

by Skeet Arasmith and Holly DeRamus



This 531 page book contains over 490 custom illustrations and is designed specifically for small wastewater systems (*populations less than 3,300*).

This manual is field tested and reviewed by operators, instructors, and regulatory agency staff. The field test included 5 day workshop, multi-week course, correspondence course, and individual certification preparation.

Any wastewater facility will find this text a valuable resource to add to their information library and it is an excellent preparation tool for those seeking certification at Treatment or Collection levels OIT and I.

This text is designed for use in a four-day workshop.

## Contents:

- Introduction to Wastewater Systems
- Characteristics of Wastewater
- Collection Systems
- Treatment
- Sludge Treatment and Disposal
- Disinfection
- Wastewater Laboratory
- Pumping Systems
- Safety
- Management Considerations
- Math

## Introduction to Small Wastewater Systems Book \$66.<sup>00</sup> Correspondence Course:



The Correspondence Course uses the student manual and a 168 page participant's guide. The participant's guide contains directions for completing the course, along with answers to lesson worksheets and lesson tests.

A course is completed by reading through each lesson, answering questions and checking your answers. Then, complete a multiple choice test and send to ACR Publications where it will be graded and your results returned to you.

The key information needed for OIT, and level I wastewater collection and wastewater treatment exam are contained in this course.

**Correspondence Course  
with 5.0 CEUs \$150.<sup>00</sup>**

## Introduction to

# Small Wastewater Systems - Instructor's Materials

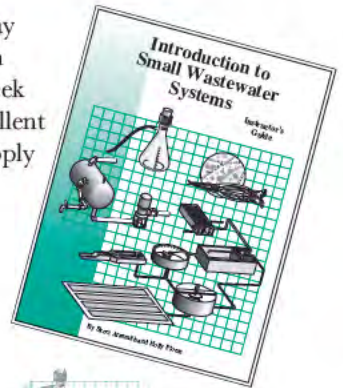
by Skeet Arasmith and Holly DeRamus

This material was designed and field-tested as a five-day workshop. In addition, the course was field tested as an extended course, where the participants met once a week for nine weeks. This extended course provided an excellent opportunity for the participants to read, review, and apply the material.

### Instructor's Guide:

The instructor's guide is a 79 page document containing the following elements:

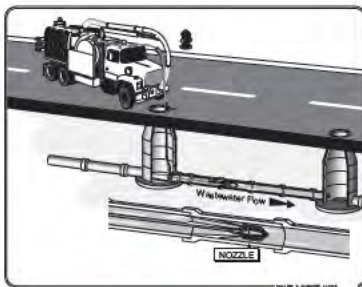
- Course sequence
- Course outline & timelines
- Lesson objectives
- List of needed support materials
- Description of each of the 61 color photos
- Answers to the worksheets
- Pre and post tests



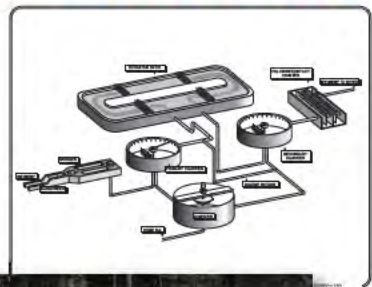
**Instructor's Guide \$15.00**

### Instructor's Packet:

The AV support for this text includes 424 B&W overhead masters or PDF files and 61 digital color photos on CD. A pdf version of the instructor's guide and the pre and post test are included on the CD.



**Instructor's Packet \$490.00**



# Pumps and Pumping

by Skeet Arasmith



This 452 page book is the only pump manual designed specifically for water and wastewater applications. Over 400 custom illustrations detail pump component relationships and maintenance procedures. Concepts and principles of pump theory and maintenance take visual form to enhance understanding. The validity and practicality of this manual is enhanced through interaction with operators and maintenance personnel attendees at Pumps and Pumping workshops.

*Pumps & Pumping* is the definitive "How To" guide on every aspect of pump operation, efficiency, and maintenance. Whether you are new to the water and wastewater industry or a veteran of on-line service, this book provides valuable assistance.

This unique manual is an ideal reference and study text for certification levels I through IV.

## Contents:

- Pump Theory
- Pump Types
- Pump Nomenclature
- Roller Bearing Basics
- Replacement of Pump Components
- Selection & Installation of Packing
- Selection & Installation of Mechanical Seals
- Pump Piping System
- Pump Hydraulics
- Operating Conditions
- Lubrication
- Lineshaft Turbines
- Special Pumping Units

**Pumps and Pumping \$62.<sup>00</sup>**



# Pumps and Pumping- Instructor's Materials

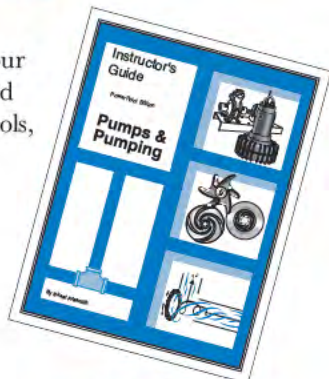
by Skeet Arasmith

This material was designed and field-tested in three, four and five-day workshop. In addition, the course was field tested as an extended course at several vocational schools, community colleges, and in-house training programs.

## Instructor's Guide:

The instructor's guide is a 135 page document containing the following elements.

- Course sequence
- Course outline & timelines
- Lesson objectives
- List of needed support materials
- Description of each of the 1264 PowerPoint™ slides
- Answers to the worksheets
- Pre and Post tests



**Instructor's Guide \$20.00**

## Instructor's Packet:

The instructor's packet for this textbook includes 1,264 PowerPoint™ slides, 131 digital color photos, a pdf version of the Instructor's Guide, a pdf version of the pre and post test, all on a CD. A hard copy of the Instructor's guide is included.

**Instructor's Packet \$920.00**



## **Electrical Fundamentals for Water and Wastewater**

by Skeet Arasmith



Ten years in development, this text was designed specifically for the water and wastewater industry!

This manual provides readers with an understanding of electricity basics and addresses specific electrical considerations found in the water and wastewater industries. *Electrical Fundamentals for Water and Wastewater* contains over 424 pages of valuable information and guides readers through details and concepts with over 460 custom illustrations.

This one-of-a-kind manual is an ideal reference and study text for certification levels I through IV.

### **Contents:**

- Atomic Theory and Energy Sources
- Electric Circuit Basics
- Electromagnetism, Inductance and Capacitance
- Power Systems
- Control System Components
- Reading Electrical Diagrams
- Electrical Measurements
- Normal Operations
- Trouble Shooting

***Electrical Fundamentals for  
Water and Wastewater \$64.<sup>00</sup>***

# Electrical Fundamentals for Water and Wastewater Instructor's Materials

by Skeet Arasmith

This material was designed and field-tested in three, four and five-day workshop. In addition, the course was field tested as an extended course at several vocational schools, community colleges, and in-house training programs.

## Instructor's Guide:

The instructor's guide is a 113 page document containing the following elements.

- Course sequence
- Course outline & timelines
- Lesson objectives
- List of needed support materials
- Description of each of the 296 overhead transparencies
- Answers to the worksheets
- Pre and Post tests



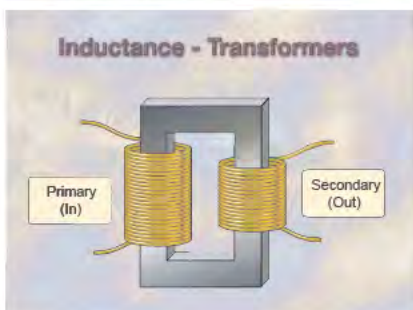
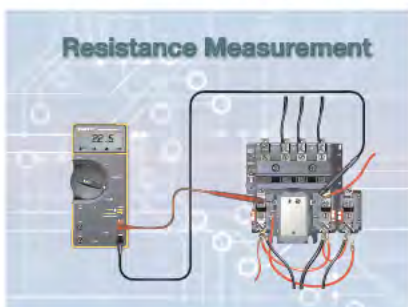
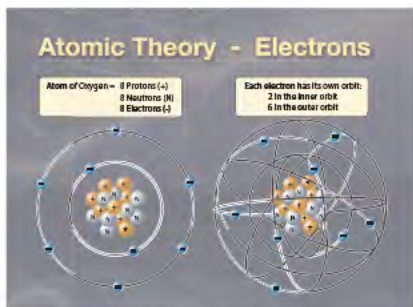
**Instructor's Guide \$15.<sup>00</sup>**

## Instructor's Packet:

The instructor's packet for this textbook includes 900 PowerPoint™ slides, 168-digital color photos, a pdf version of the Instructor's Guide, and a pdf version of the post test, all on a CD.

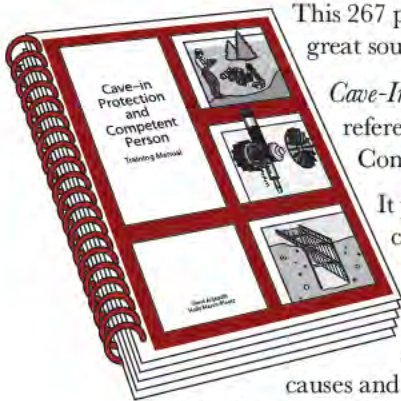
A hard copy of the Instructors guide is included.

**Instructor's Packet \$660.<sup>00</sup>**



# Cave-in Protection and Competent Person Training Manual

by Skeet Arasmith and Holly DeRamus



This 267 page manual with over 130 original graphics is a great source of information and a valuable field reference.

*Cave-In Protection and Competent Person Training Manual* references specific components of the OSHA Competent Person regulations.

It provides additional field tested techniques that conform to published standards and represent realistic job conditions.

*Cave-In Protection and Competent Person Training Manual* presents clear understanding of the causes and prevention of cave-ins, details on responsibilities of the Competent Person, and implementation of a cave-in protection program that meets the OSHA requirements.

This manual is the basis for an ACR workshop designed to meet the “Competent Person” requirements and OSHA requirements as described in 29 CFR Part 1926.

## Contents:

- In The Beginning
- Causes of Cave-ins
- Classification of Soil
- Determining Soil Classification
- Protection Systems
- Inspection for Other Hazards
- Water Hazard Considerations
- Excavation Safety Program
- OSHA Regulations
- Glossary

***Cave-in Protection and Competent Person Training Manual* \$39.<sup>00</sup>**

# Cave-in Protection and Competent Person

## Instructor's Materials

by Skeet Arasmith and Holly DeRamus

This material was designed and field-tested as a two-day workshop. In addition, the course was field tested as an extended in-house training program.



### Instructor's Guide:

The instructor's guide is a 89 page document containing the following elements.

- Course sequence
- Course outline & timelines
- Lesson objectives
- List of needed support materials
- Detailed outline for each lesson
- Answers to the worksheets
- Pre and Post tests

**Instructor's Guide \$15.00**

### Instructor's Packet:

The instructor's packet for this textbook includes 446 PowerPoint™ slides, a pdf version of the Instructor's Guide, a pdf version of the pre and post test, all on a CD. A hard copy of the Instructor's guide is included.

**Instructor's Packet \$370.00**

• Classic failure as a wedge of soil

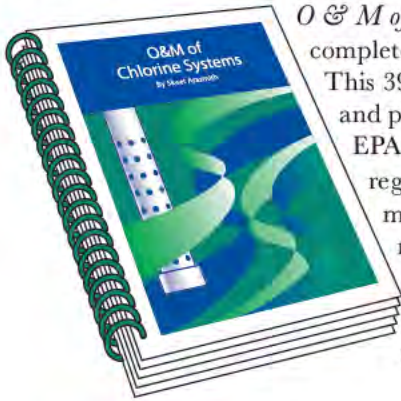
### Shoring Components

TRENCH SHORING - MINIMUM TRENCH REQUIREMENTS*		SOIL TYPE % (S, O, S, O) (S, O, S, O)	
TRENCH DEPTH	TRENCH WIDTH	SIZE (HxW) AND SPACING OF MEMBERS**	
		VERTICAL	HORIZONTAL
1-2	4-6	S	4x4 @ 48"
		O	4x4 @ 48"
	6-8	S	4x4 @ 48"
		O	4x4 @ 48"
2-3	4-6	S	4x4 @ 48"
		O	4x4 @ 48"
	6-8	S	4x4 @ 48"
		O	4x4 @ 48"
3-4	4-6	S	4x4 @ 48"
		O	4x4 @ 48"
	6-8	S	4x4 @ 48"
		O	4x4 @ 48"
4-5	4-6	S	4x4 @ 48"
		O	4x4 @ 48"
	6-8	S	4x4 @ 48"
		O	4x4 @ 48"

\* Example P10 in agreement with a bonding strength not less than 1000 psi.  
\*\* Intermediate members of spacers should also be substituted for sizes.

# O&M of Chlorine Systems

by Skeet Arasmith



*O & M of Chlorine Systems* is one of the most complete publications on chlorine systems available. This 398 page text contains over 200 illustrations and provides extensive guidance in meeting the EPA, OSHA, DOT, and Uniform Fire Code regulations. *O & M of Chlorine Systems* is a must for any water or wastewater operator or maintenance professional.

This manual is an ideal reference source and study text for those seeking certification in levels I through IV.

## Contents:

- Disinfection
- Chlorine Properties & Chemistry
- Chlorine Reactions & Effects
- Gas Chlorine Stations
- Cylinders & Connections
- O & M of Gas Chlorinators
- O & M of Hypochlorination
- Chlorine Safety
- Monitoring
- Chlorine Math

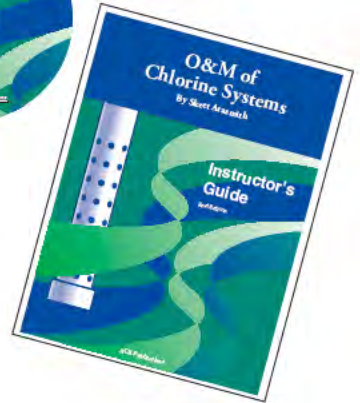
***O&M of Chlorine Systems* \$57.<sup>00</sup>**

# O & M of Chlorine Systems

## Instructor's Materials

by Skeet Arasmith

This material was designed and field-tested as a three-day workshop. In addition, the course was field tested as an extended in-house training program.



### Instructor's Guide:

The instructor's guide is a 90 page document containing the following elements.

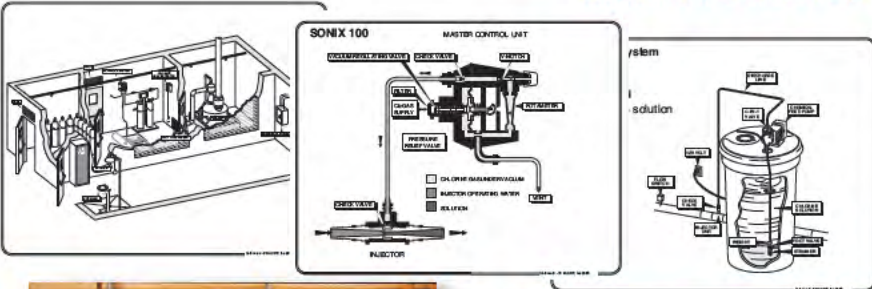
- Course sequence
- Course outline & timelines
- Lesson objectives
- List of needed support materials
- Description of each of the 263 overhead transparencies and the 246 photos
- Answers to the worksheets
- Pre and Post tests

**Instructor's Guide \$15.00**

### Instructor's Packet:

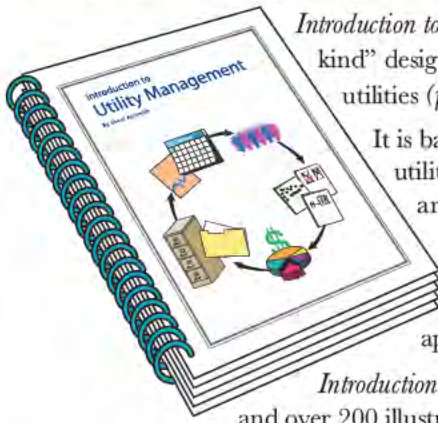
The instructor's packet for this tex book includes 263-B & W overhead masters as pdf files, 243-digital color photos, a pdf version of the Instructor's Guide, a pdf version of the pre and post test, all on a CD. A hard copy of the Instructor's guide is included.

**Instructor's Packet \$430.00**



# Introduction to Utility Management

by Skeet Arasmith and Rolfe Stearns



*Introduction to Utility Management* is the only “one-of-its-kind” designed specifically for water and wastewater utilities (populations between 500 and 10,000).

It is based on the philosophy that efficiently operated utilities have a management structure designed around an enterprise model. *Introduction to Utility Management* describes the structural elements of a “well run” utility. Concepts are fully visualized for easy understanding and application.

*Introduction to Utility Management* contains 282 pages and over 200 illustrations of time and money saving ideas.

This text provides an excellent overview of the essential functions and activities of successful managers. Learn how to organize a utility for efficiency and identify the tools and techniques to improve effectiveness. This book also depicts what is needed for a Utility to meet the EPA Management Capacity Requirement.

## Contents:

- Organizational Management - Purpose of local governments, defining the level of service, utility ordinance, information management, working with agencies, user agreement, and roles, responsibilities, and authority of key stake holders.
- Planning Management - The purpose of planning, community plans, utility master plan, capital improvement plans, annual operations plan, site control plan, and source protection plan.
- Personnel Management - Leadership and management, working with people, motivation, personnel policies and procedures, safety program, and effective communication.
- Operations Management - Asset management, work orders, preventive maintenance, data collection, contingency plans and time management.
- Financial Management - Accounting, budgets, rates and financial reporting.

***Introduction to Utility Management* \$50.<sup>00</sup>**

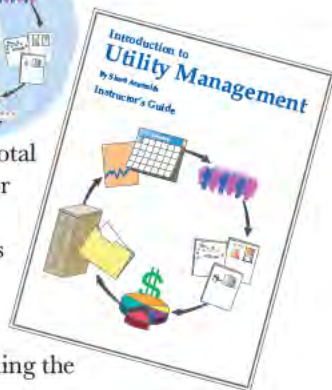


# Introduction to Utility Management

## Instructor's Materials

by Skeet Arasmith and Rolfe Stearns

This material was designed and field-tested in three and five-day workshops. Each lesson is delivered by an hour to an hour and a half presentations followed by group activities that reinforce the lesson. There are a total of 46 exercises selected and/or designed specifically for this course. The course was originally designed specifically for rural Alaska, thus many of the exercises focus on small, rural, and arctic systems.



### Instructor's Guide:

The instructor's guide is a 315 page document containing the following elements.

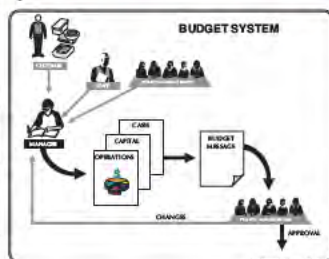
- Course sequence
- Course outline & timelines
- Lesson objectives
- List of needed support materials
- Key considerations and presentation notes for each lesson
- 46 group exercises
- Answers to the worksheets
- Pre and Post tests

**Instructor's Guide \$45.00**

### Instructor's Packet:

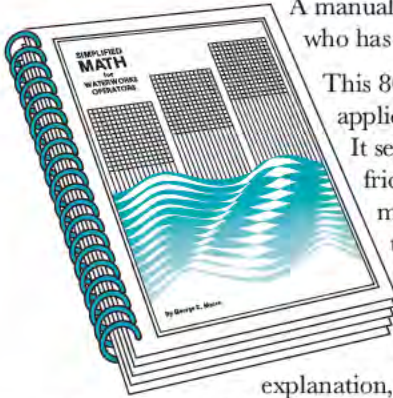
The instructor's packet for this text book includes 213-B & W overhead masters as pdf files, 213 overhead masters with colored background as pdf files for use with an LCD projector, a pdf version of the Instructor's Guide, a pdf version of the 46 exercises designed for this course, a pdf version of the post test, all on a CD. A hard copy of the Instructor's guide and exercises are included.

**Instructor's Packet \$300.00**



# Simplified Math for Waterworks Operators

by George C. Mason



A manual written for waterworks operators by an operator who has been teaching math concepts for over 18 years.

This 80 page workbook guides users through math applications commonly used in the waterworks industry. It separates formulas, conversion tables, glossaries, and friction loss tables into easy-to-use sections. While most math books are divided into math concepts, this text is divided into application topics such as volume, flow, etc. so you can easily use the material for real-world applications.

Each concept is approached in detail with an explanation, sample problems, and step-by-step solutions. The concepts are put to use with practice problems and supported with detailed answers.

*This material is appropriate for certification preparation in levels OIT through III of Water Distribution and Water Treatment.*

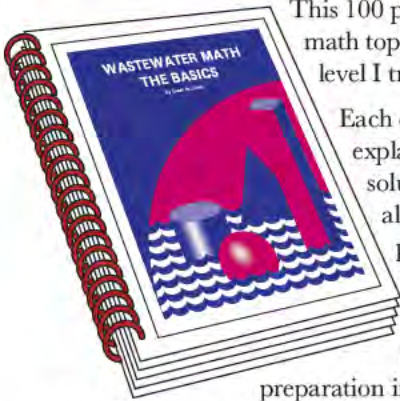
## Contents:

- Formula
- Conversion Tables
- Glossary of Terms
- Head/Pressure
- Square Roots
- Rate/Time of Flow
- Concentration
- Dilution
- Friction Loss
- Appendices (Temperature Conversions, Fractions, Decimals, and Percents)
- Volume
- Force & Thrust
- Flow
- Dosage
- Proportion
- Horsepower
- Friction Loss Tables
- Water Hammer Information
- Answers for Practice Problems

**Simplified Math for  
Waterworks Operators \$19.<sup>00</sup>**

# Wastewater Math – The Basics

by Skeet Arasmith



This 100 page workbook guides you through 15 different math topics commonly found on wastewater OIT and level I treatment and collection system examinations.

Each concept is approached in detail with explanation, sample problems, and step-by-step solutions. Practice problems and detailed answers allow readers to apply these concepts to practical situations. With powerful techniques to support learning, this custom approach to math makes learning easy and fun.

This material is ideal for certification preparation in levels OIT and I of Wastewater Collection

and Treatment

## Contents:

- Abbreviations
- Conversions
- Formulas
- Working with Math
- Math Principles
- Equations
- Perimeter Circumference
- Finding Area
- Finding Volume
- Working with Percent
- Efficiency
- Making Conversions
- Temperature Conversions
- Calculating Pressure Head
- Determining Flow
- Calculating Detention Time
- Ration and Proportion
- Pound Formula
- Metric System
- Answer to Practice Problems

**Wastewater Math – The Basics \$18.<sup>00</sup>**

# Excavation Safety Officer's Handbook

by Skeet Arasmith



This text contains 64 pages of concise information designed specifically for the excavation safety officer. It includes summary steps in performing a hazard analysis at the excavation site, soil testing procedures, safety equipment requirements, and construction support information. The *Excavation Safety Officer's Handbook* is fully illustrated and an ideal on-the-job reference.

## Contents

- Hazard Assessments
- Utility Locates
- Traffic Control
- Personal Protective Equipment
- Heavy Equipment
- Power and Hand Tools
- Cave-in Protection Systems
- Thrust Blocks
- Handling AC Pipe
- Bedding and Backfill
- Testing New Water Lines
- Disinfecting New Water Lines
- Broken Water Line Repair Procedure
- Handling Raw Sewage Spills
- Pipe Size Chart

**Excavation Safety  
Officer's Handbook \$12.00**

# Flash Certs!<sup>TM</sup>

by Dan Lundy



The information you need to pass your certification exam is now compiled in convenient flash card format.

Certification in the water and wastewater industry requires demonstration of a broad range of water and wastewater knowledge.

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*FlashCerts!*<sup>TM</sup> are ideal for certification levels I through III.

*FlashCerts!*<sup>TM</sup> are available for Wastewater, Water Treatment, and Water Distribution

*Flash Certs!*<sup>TM</sup> \$36.<sup>50</sup> each

# Price List

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<b>Introduction to Small Water Systems</b>	
Student Manual .....	\$60. <sup>00</sup> each
Correspondence Course ( <i>includes manual</i> ) .....	\$140. <sup>00</sup> each
Instructor guide .....	\$15. <sup>00</sup> each
Instructor's Packet. ....	\$750. <sup>00</sup> set
<b>Operation of Water sources</b>	
Student Manual .....	\$64. <sup>00</sup> each
Instructor Guide .....	\$20. <sup>00</sup> each
Instructor's Packet. ....	\$720. <sup>00</sup> set
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Student Manual .....	\$88. <sup>00</sup> each
Instructor Guide .....	\$20. <sup>00</sup> each
Instructor's Packet. ....	\$720. <sup>00</sup> set
<b>Water Distribution System Construction</b>	
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Instructor Guide .....	\$15. <sup>00</sup> each
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Student Manual .....	\$46. <sup>00</sup> each
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Student Manual .....	\$66. <sup>00</sup> each
Correspondence Course ( <i>includes manual</i> ) .....	\$150. <sup>00</sup> each
Instructor guide .....	\$15. <sup>00</sup> each
Instructor's Packet .....	\$490. <sup>00</sup> set

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Instructor's Packet. ....	\$920. <sup>00</sup> set
<b>Electrical Fundamentals for Water and Wastewater</b>	
Student Manual .....	\$64. <sup>00</sup> each
Instructor Guide .....	\$15. <sup>00</sup> each
Instructor's Packet. ....	\$660. <sup>00</sup> set
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Instructor Guide .....	\$15. <sup>00</sup> each
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<b>O&amp;M of Chlorine Systems</b>	
Student Manual .....	\$57. <sup>00</sup> each
Instructor Guide .....	\$15. <sup>00</sup> each
Instructor's Packet. ....	\$430. <sup>00</sup> set
<b>Introduction to Utility Management</b>	
Student Manual .....	\$50. <sup>00</sup> each
Instructor Guide .....	\$45. <sup>00</sup> each
Instructor's Packet.. ....	\$300. <sup>00</sup> set
<b>Simplified Math for Waterworks Operators</b>	
Student Manual .....	\$19. <sup>00</sup> each
<b>Wastewater Math • The Basics</b>	
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