

# CONTRACTORS STATE LICENSE BOARD LICENSE EXAMINATION STUDY GUIDE



## **WATER CONDITIONING (C-55)**

#### **Content of the Examination**

The Water Conditioning (C-55) Examination is divided into four major sections:

### 1. Planning and Estimating (28%)

- Water analysis
- Job site evaluation
- System selection
- Planning and estimating

# 2. Water Systems Component Installation and Startup (24%)

- Piping and valves
- Equipment installation
- Drain connections/backflow
- Electrical connections
- Startup and calibration

# 3. Troubleshooting, Maintenance, Repair, and/or Replacement of Water Systems and Components (31%)

- Service and maintenance
- Troubleshooting
- · Repair and replacement
- Disinfection

## 4. Safety (17%)

- Personnel safety
- · Handling hazardous materials
- Environmental safety
- Tool and equipment safety

\*Percentages are approximate\*

### **Test Policy**

This is a closed-book examination. No reference materials may be used during the examination.

#### **Test Strategy**

This is a multiple-choice examination with four choices per question. Examination questions are written to provide only one BEST answer. Some questions require mathematical computation. A calculator will be provided.

There is no penalty for guessing. If you are unsure about a particular question, it is better to try to answer the question than to leave the question blank.

Plenty of time is provided to answer all examination questions, so be sure to read each question and its four choices completely and carefully before selecting the BEST possible answer to the question.

### **Sample Questions**

Below are three typical examination questions. The correct answer is marked with an asterisk (\*).

- **1.** What is a benefit of bypassing outside faucets when installing a water softener?
  - a. Reduced regenerant\*
  - b. Reduced plumbing costs
  - c. Reduced contamination risk of hose bibbs
  - **d.** Improved household water pressure
- 2. A small reverse osmosis system running at 250 gallons per day at peak efficiency consumes 15 kWh of energy. What is the 30-day cost of energy if the unit operates at 75% efficiency with a daily run time of 15 hours and a cost of \$0.125 per kWh?
  - **a.** \$1.56
  - **b.** \$35.10
  - **c.** \$46.80\*
  - **d.** \$76.96
- **3.** To safely complete the electrical connection in a home with non-polarized receptacles, what procedure should a contractor follow?
  - a. Bend or cut off the third prong.
  - **b.** Adapt an extension cord to make the necessary connections.
  - **c.** Use an adapter plug to accommodate the equipment.
  - **d.** Have the problem corrected by an electrician.\*

#### Resources

Publisher information for reference books and code is provided below. Other sources for reference books may be found online.

California code books can be viewed online: www.dgs.ca.gov/bsc

**2022 California Plumbing Code.** California Code of Regulations, Title 24. International Association of Plumbing and Mechanical Officials (IAPMO).

PHONE: (909) 472-4100 INTERNET: www.iapmo.org

California Health & Safety Code. Division 104 Environmental Health, Part 12 Drinking Water, Chapter 4, California Safe Drinking Water Act and Chapter 5, Water Equipment and Control.

**INTERNET:** 

leginfo.legislature.ca.gov/faces/codes.xhtml

State of California General Industry & Electrical Safety Orders (Cal/OSHA) and State of California Construction & Electrical Safety Orders (Cal/OSHA). 2024. California Code of Regulations, Title 8. Mancomm.

PHONE: (877) 626-2666 INTERNET: mancomm.com

VIEW ONLINE:

www.dir.ca.gov/dosh/LawsAndRegulations.htm

Water Quality Association Knowledge Base. INTERNET: wqa.org/education/knowledge-base

\*Publisher information is current as of 1/24\*

<sup>\*</sup>All questions are written and reviewed by licensed contractors who are actively working in the trade\*