



**CONTRACTORS STATE LICENSE BOARD
LICENSE EXAMINATION STUDY GUIDE**



BOILER, HOT-WATER HEATING AND STEAM FITTING (C-4)

Content of the Examination

The Boiler, Hot-Water Heating, and Steam Fitting (C-4) Examination is divided into five major sections:

- 1. Planning and Estimating (19%)**
 - Planning
 - Estimating
- 2. Boiler System Removal, Preparation and Installation (29%)**
 - Removing boiler systems
 - Preparing and installing boiler systems
- 3. Specialty Boiler Installations (11%)**
 - Specialty commercial and industrial applications
 - Specialty residential and light commercial applications
- 4. Boiler System Maintenance, Repair and Retrofit (19%)**
 - Maintaining, repairing and retrofitting boiler systems
- 5. Worker and Job Site Safety (22%)**
 - Worker safety
 - Job site safety

Percentages are approximate

Test Site Policy

This is a closed-book examination. No reference materials may be used during the examination. All materials brought to the examination site must be left in an unmonitored area at your own risk.

Test Strategy

This is a multiple-choice examination with four choices per question. Some questions require mathematical computation. Examination questions are written to provide only one BEST answer and are NOT written as trick questions.

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 "➡."

1. Which of the following conditions would probably cause foaming?
 - a. Turbulence in the water
 - b. Sludge or sediment in the check valve
 - c. A high concentration of liquids in the boiler chamber
 - ➡ d. A high concentration of solids in the boiler water

2. What does the boiler aquastat control?
 - a. Water pressure
 - b. Gas pressure
 - c. Room temperature
 - ➡ d. Water temperature

3. If the required boiler capacity to meet the demand for heat is 100,000 btus at a 20 degree Delta T, what would be the trunk main required gallons per minute?
 - a. 2 gpm
 - b. 4 gpm
 - c. 8 gpm
 - ➡ d. 10 gpm

All questions are written and reviewed by licensed contractors who are actively working in the field

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.bsc.ca.gov***

2013 California Mechanical Code.

International Association of Plumbing and Mechanical Officials (IAPMO).
PHONE: (800) 854-2766
INTERNET: www.iapmo.org

2013 California Plumbing Code. International Association of Plumbing and Mechanical Officials (IAPMO).

PHONE: (800) 854-2766

INTERNET: www.iapmo.org

Boiler Operator's Guide. Anthony I. Kohan.

PHONE: (877) 833-5524

INTERNET: www.mhprofessional.com

Modern Hydronic Heating for Residential and Light Commercial Buildings. John Siegenthaler.

Siegenthaler.

PHONE: (800) 354-9706

INTERNET: www.cengage.com

Radiant Floor Heating. R. Dodge Woodson.

PHONE: (877) 833-5524

INTERNET: www.mhprofessional.com

State of California General Industry & Electrical Safety Orders (Cal/OSHA) and State of California Construction & Electrical Safety Orders (Cal/OSHA). 2015. California Code of Regulations, Title 8. Mancomm.

PHONE: (877) 626-2666

INTERNET: www.mancomm.com

Publisher information is current as of 7/15