

C-37R (Residential) and L-78 (Commercial) Solar Plumbing Liquid Systems Only

Exam Number: 030614
Effective Date: 08/18/08

License Information

Scope – Installation, alteration and repair of solar water heating systems operating at temperatures not exceeding 220°F, including thermosyphon, direct (open loop) and indirect (closed loop), but excluding air as a transfer medium. Includes installation of collectors, storage and expansion tanks, heat exchangers, piping valves, pumps, sensors, and low voltage controls that connect to existing plumbing and electrical stub-outs at the water tank location. Installation of solar heating systems for swimming pools that tie into and operate from the conventional pool system, but excludes all non-solar plumbing, electrical, and mechanical systems and components. Installation of back-up and auxiliary heating systems only when such systems are included in the original contract and when such systems are an integral part of the solar collector or storage equipment.

The trade test is considered equivalent for these classifications and upon passing the CBME and trade exam, either license classification may be applied for without further testing.

Examination Outline

Closed Book
80 Questions - Two-hour time limit
70% Correct required to pass

Exam Topic	%
Pipes and Materials	21
Open and Closed Loop Systems	17
Estimating and Sizing	17
Pumps and Storage Systems	15
System Designs	13
Collectors	9
Controls	8

References

The following references were used to create exam questions but **are not allowed** in the testing center.

1. *Uniform Plumbing Code*, 2006, International Association of Plumbing and Mechanical Officials (IAPMO), 5001 East Philadelphia Street, Ontario, CA 91761-2816, www.iapmo.org.
2. *Uniform Solar Energy Code*, 2006, International Association of Plumbing and Mechanical Officials (IAPMO), 5001 East Philadelphia Street, Ontario, CA 91761-2816, www.iapmo.org.
3. *Mathematics for Plumbers and Pipefitters*, Seventh Edition, 2008, Delmar Learning, P.O. Box 6904, Florence, KY 41022, www.delarmlearning.com.
4. *Modern Hydronic Heating for Residential and Light Commercial Buildings*, Second Edition, 2004, Delmar Learning, P.O. Box 6904, Florence, KY 41022, www.delarmlearning.com.
5. *Solar Energy Pocket Reference*, 2005, International Solar Energy Society (ISES), Stylus Publishing Company, P.O. Box 605, Herndon, VA 20172, styluspub.com.

For information on how to obtain exam references, please call toll-free 877.624.2562.

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