

L-77 Plumbing, Including Solar (Commercial)

Exam Number: 030390
Effective Date: 08/18/08

License Information

Scope – Installation, alteration and repair of all plumbing, including solar, when performed solely within property lines and not on public easements or right-of-ways except as hereinafter provided.

Installation, alteration and repair of all piping, fixtures and appliances related to water supply, including pressure vessels and tanks (excluding municipal or related water supply systems); venting and sanitary drainage systems for all fluid, semi-fluid and organic wastes; septic tanks and leaching lines; roof leaders; lawn sprinkler systems; water conditioning equipment; piping and equipment for swimming pools.

Also included are piping, fixtures, appliances and pressure vessels for manufactured and natural gases, compressed air and vacuum systems, petroleum, fuel oil, non-potable liquids, hot water heating and hot water supply systems operating at pressures not exceeding 30 psig or temperatures not exceeding 220°F; steam heating and steam supply systems not exceeding 15 psig operating pressure; gas- or oil-fired space heaters and furnaces excluding duct work. Piping for water cooling systems excluding the refrigerant piping and equipment. Testing and balancing of hydronics systems.

Sewer, gas, water lines and connections from structure to the nearest point of public supply or disposal may cross public or private easements or be installed within private easements. Pipe installed across public property may not be increased in size or make any other connection between the point of exit from private property to point of connection at public supply or disposal. These lines shall not be installed parallel to main lines in public easements or right-of-ways.

Copyrighted Exam Questions

All test questions are the copyrighted property of Prometric Inc. It is forbidden under federal copyright law to copy, reproduce, record, distribute or display these test questions by any means, in whole or in part, without our written permission. Doing so may subject you to severe civil and criminal penalties, including up to five years in prison and/or a \$250,000 fine for criminal violations.

Examination Outline

Closed Book

**90 Questions - Four-hour time limit
70% Correct required to pass**

Exam Topic	%
General Knowledge	10
Drains, Waste and Sanitary Vents	18
Water Supply Systems	16
Specialty Plumbing	9
Plumbing Fixtures	5
Fire Sprinklers	5
Roof Drain Piping	5
Steam and Hydronic Heating	5
Septic Tank Systems	5
Trenching and Excavation	3
Safety	2
Solar Hydronic Heating Systems	5
Fuel Gas Systems	12

References

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

1. *International Fuel Gas Code*, 2006, International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478-5795, www.iccsafe.org.
2. *International Mechanical Code*, 2006, International Code Council, 4051 West Flossmoor Road, Country Club Hills, IL 60478-5795, www.iccsafe.org.
3. *Mathematics for Plumbers and Pipefitters*, Seventh Edition, 2008, Delmar Learning, P.O. Box 6904, Florence, KY 41022, www.delmarlearning.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. *NFPA 13 – Installation of Sprinkler Systems*, 2007 Edition, National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101, www.nfpa.org.

L-77 Plumbing, Including Solar (Commercial)

6. *On-site Wastewater Treatment Facility Provisions in Unified Water Quality Permit Rule*, Arizona Administrative Code Title 18, Chapter 9, 2006, Arizona Department of Environmental Quality, 1110 West Washington Street, Phoenix, AZ, 85007, www.azdeq.gov.
7. *Plumbing Design and Installation*, Third Edition, 2006, American Technical Publishers (ATP), 1155 West 175th Street, Homewood, IL 60430-4600, www.go2atp.com.
8. *Uniform Plumbing Code*, 2006, International Association of Plumbing and Mechanical Officials (IAPMO), 5001 East Philadelphia Street, Ontario, CA 91761-2816, www.iapmo.org.
9. *Uniform Solar Energy Code*, 2006, International Association of Plumbing and Mechanical Officials (IAPMO), 5001 East Philadelphia Street, Ontario, CA 91761-2816, www.iapmo.org.

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