

## License Information

**Scope-** Tests a candidate's knowledge of the design, installation, maintenance, repair, alteration, and extension of air conditioning, refrigeration, warm air heating, low and high pressure boilers, ventilation systems, duct systems, unfired pressure vessels, fuel transmission lines, and related appurtenances.

## Examination Outline

### Open Book

**120 Questions – 4-1/2-hour time limit**

**70% Correct Required to Pass**

SUBJECT AREA	PERCENTAGE
HARV GENERAL	17
HEATING- LOW AND HIGH PRESSURE BOILERS, WARM AIR	17
HARV CONTROLS	13
VENTILATION	13
FUEL GAS SYSTEMS	12
PIPING	8
LOAD CALCULATIONS/PSYCHROMETRIC ANALYSIS	8
HARV MAINTENANCE	4
INSULATION	4
SAFETY	4

## References

*The following references ARE allowed in the testing center:*

- Code of Federal Regulations, Title 29, Part 1926 (OSHA)*, 2003 Edition, Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954, [www.access.gpo.gov](http://www.access.gpo.gov).
- High Pressure Boilers*, Third Edition, 2003, American Technical Publishers (ATP), 1155 West 175<sup>th</sup> Street, Homewood, IL 60430-4600, [www.go2atp.com](http://www.go2atp.com).
- Modern Refrigeration and Air Conditioning*, Eighteenth Edition, 2004, Goodheart-Willcox Company, Inc., 18604 West Creek Drive, Tinley Park, IL 60477-6243, [www.goodheartwillcox.com](http://www.goodheartwillcox.com).
- ACCA Duct Slide Rule*, Air Conditioning Contractors of America, 2800 Shirlington Road, Suite 300, Arlington, VA 22206, [www.acca.org](http://www.acca.org).
- Fibrous Glass Duct Construction Standards*, Fifth Edition, 2002, North American Insulation Manufacturers Association (NAIMA), 44 Canal Center Plaza, Suite 310, Alexandria, VA 22314, [www.naima.org](http://www.naima.org).
- Florida Building Code*, 2002/2003, Revised Second Edition, 2001, International Code Council (ICC), 4051 West Flossmoor Road, Country Club Hills, IL 60478-5795, [www.iccsafe.org](http://www.iccsafe.org).
- Florida Building Code: Fuel Gas Volume*, 2002/2003, Revised Second Edition, 2001, International Code Council (ICC), 4051 West Flossmoor Road, Country Club Hills, IL 60478-5795, [www.iccsafe.org](http://www.iccsafe.org).
- Florida Building Code: Mechanical Volume*, 2002/2003, Revised Second Edition, 2001, International Code Council (ICC), 4051 West Flossmoor Road, Country Club Hills, IL 60478-5795, [www.iccsafe.org](http://www.iccsafe.org).
- Florida Energy Efficiency Code for Building Construction, Chapter 13 of Florida Building Code*, 2002/2003, Revised Second Edition, 2001, International Code Council (ICC), 4051 West Flossmoor Road, Country Club Hills, IL 60478-5795, [www.iccsafe.org](http://www.iccsafe.org).
- Low Pressure Boilers*, 2001 Edition, American Technical Publishers (ATP), 1155 West 175<sup>th</sup> Street, Homewood, IL 60430-4600, [www.go2atp.com](http://www.go2atp.com).
- Manual N – Commercial Load Calculation*, Fourth Edition, 1988, Air Conditioning Contractors of America, 2800 Shirlington Road, Suite 300, Arlington, VA 22206, [www.acca.org](http://www.acca.org).
- NFPA 85 – Boiler and Combustion Systems Hazards Code*, 2001 Edition, National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101 Quincy, MA 02269-9101, [www.nfpa.org](http://www.nfpa.org).
- NFPA 90A – Installation of Air Conditioning and Ventilating Systems*, 2002 Edition, National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101 Quincy, MA 02269-9101, [www.nfpa.org](http://www.nfpa.org).
- NFPA 96 – Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations*, 2001 Edition, National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101 Quincy, MA 02269-9101, [www.nfpa.org](http://www.nfpa.org).
- Pipefitters Handbook*, Third Edition, 1967, Industrial Press, Inc., 200 Madison Avenue, New York, NY 10016, [www.industrialpress.com](http://www.industrialpress.com).
- TRANE Air Conditioning Manual*, Revised Edition, 1996, TRANE Company, c/o Inland Marketing Services, 3030 Airport Road, La Crosse, WI 54603, [www.trane.com/bookstore](http://www.trane.com/bookstore).
- TRANE Ductulator*, TRANE Company, c/o Inland Marketing Services, 3030 Airport Road, La Crosse, WI 54603, [www.trane.com/bookstore](http://www.trane.com/bookstore).

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

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