

ARIZONA REGISTRAR OF CONTRACTORS

A-16 WATERWORKS (COMMERCIAL)

SCOPE OF WORK

All work necessary for the production and distribution of water including drilling well, setting casing and pump, related electrical work, related concrete work, excavation, piping for storage and distribution, storage tanks, related fencing, purification and chlorination equipment.

Examination	# of Questions	Minimum Passing Score	Time Allowed
A-16	50	70%	120 Minutes

CONTENT OUTLINE

Subject Area	# of Items
Water Distribution Systems	12
Excavation and Backfill	6
Water Wells	8
Pumps and Related Electrical	6
Water Treatment	4
Water Storage Tanks	6
Concrete	4
Safety	4

REFERENCE LIST

To find reference materials, you may use the link provided or search for the material online via a search engine such as Google. You may also go to PSI's online store at www.psionlinestore.com.

The reference material listed below was used to prepare the questions for this examination. The examination may also contain questions based on trade knowledge or general industry practices. **Except for Code books**, you can base your answers on later editions of references as they become available. For Code questions, the examinations will be based **only** on the edition of the Code book that is listed.

Candidates may use a silent, nonprinting, non-programmable calculator in the examination center.

The following reference material is allowed in the examination center:

Code of Federal Regulations - 29 CFR Part 1926 (OSHA), with latest available amendments, U.S. Government Printing Office, (866) 512-1800 or <http://www.access.gpo.gov/nara/cfr/cfr-table-search.html>

OR

Code of Federal Regulations - 29 CFR Part 1926 Selections by PSI, with latest available amendments, 3210 E Tropicana, Las Vegas, NV 89121, (800) 733-9267, www.psionlinestore.com (See order form at the end of the Candidate Information Bulletin.)

International Plumbing Code, 2009, International Code Council, (800) 786-4452, www.iccsafe.org

NFPA 70: National Electrical Code, 2008, National Fire Protection Association, www.nfpa.org

AWWA Standard for Installation of Ductile Iron Water Main and their Appurtenances, C600-99, 1999 Edition, American Water Works Association, www.awwa.org

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

The following reference material is not allowed in the examination center:

Arizona 811 - Arizona Blue Stake Brochure, 2010, Arizona Blue Stake, (800) 782-5348, www.azbluestake.com

Groundwater Hydrology, David Keith Todd and Larry W. Mays, 2005, 3rd Edition, John Wiley and Sons, Inc., www.wiley.com

Pipe and Excavation Contracting, Dave Roberts, 1987, Craftsman Book Company, (800) 829-8123, www.craftsmanbook.com

Excavation and Grading Handbook, Revised Second Edition, 1987, Craftsman Book Company, www.craftsman-book.com

Installation Guide for Ductile Iron Pipe, 2002 Edition, Ductile Iron Pipe Research Association, 245 Riverchase Parkway East, Suite O, Birmingham, AL 35244, www.dipra.org

Design and Control of Concrete Mixtures, 2011, Steven H. Kosmatka, William C. Panarese, Portland Cement Association, 5420 Old Orchard Road, Skokie, IL 60077-1083, 847-966-6200, www.cement.org

Welded Carbon Steel Tanks for Water Storage - AWWA Standard, 2006, American Water Works Association, (800) 926-7335, www.awwa.org

Candidates are responsible for bringing their own references to the examination center. Reference materials may be highlighted, underlined, annotated and/or indexed prior to the examination session. However, references may not be written in during the examination session. Any candidate caught writing, highlighting, underlining and/or indexing in the references during the examination will be reported to the Arizona ---Registrar of Contractors. Furthermore, candidates are not permitted to bring in any additional papers (loose or attached) with their approved references. References may be tabbed/indexed with permanent tabs only. (permanent tabs are defined as tabs that would tear the page if removed). Temporary tabs, (defined as Post-It notes, or other tabs that may be removed without tearing the page) are not allowed and must be removed from the reference before the exam will begin. If you are downloading from the Internet, you may bring this reference into the testing center with you as long as it is bound. You can have it spiral bound or you may hole-punch it and put it in a binder.

