

# ARIZONA REGISTRAR OF CONTRACTORS

## CR-54 WATER CONDITIONING EQUIPMENT

### SCOPE OF WORK

**CR-54 WATER CONDITIONING EQUIPMENT:** This classification allows the scopes of work permitted by the commercial C-54 Water Conditioning Equipment and the residential R-54 Water Conditioning Equipment licenses.

**C-54 WATER CONDITIONING EQUIPMENT:** This classification allows the scopes of work permitted by the commercial C-54 Water Conditioning Equipment and the residential R-54 Water Conditioning Equipment licenses. This classification allows the licensee to perform trenching, backfilling, and grading; and install and repair piping, fittings, valves, concrete supports, and electrical control panels of less than 25 volts and required grounding devices; as required for the licensee to install and repair:

1. Water conditioning equipment
2. Misting systems
3. Exchange tanks
4. Indirect waste pipe carrying brine, backwash and rinse water to the point of disposal

**R-54 WATER CONDITIONING EQUIPMENT:** This classification allows the licensee to perform trenching, backfilling, and grading; and install and repair piping, fittings, valves, concrete supports, and electrical control panels of less than 25 volts and required grounding devices; as required for the licensee to install and repair:

1. Water conditioning equipment
2. Misting systems
3. Exchange tanks
4. Indirect waste pipe carrying brine, backwash and rinse water to the point of disposal

# of Questions	Minimum Passing Score	Time Allowed
30	70%	75 Minutes

### CONTENT OUTLINE

Subject Area	# of Items
Trenching, Backfilling, and Grading	4
Concrete	4
Electrical - Low Voltage Installation	4
Piping, Fittings, and Valves	6
Waste including Indirect Waste	3
Water Conditioning	6
OSHA Safety	3

### REFERENCE LIST

To purchase reference materials, go to PSI's online store at [www.psionlinestore.com](http://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:*

*ASCC-1(05): The Contractor's Guide to Quality Concrete Construction*, 20185, 4th Edition, American Concrete Institute, (248) 848-3700, [https://www.concrete.org/store/productdetail.aspx?ItemID=ASCC105&Format=HARD\\_COPY](https://www.concrete.org/store/productdetail.aspx?ItemID=ASCC105&Format=HARD_COPY)

*Code of Federal Regulations - 29 CFR Part 1926 (OSHA)*, with latest available amendments, U.S. Government Printing Office, (866) 512-1800. Online version: <https://www.osha.gov/laws-regs/regulations/standardnumber/1926>

This may also be purchased from various vendors including Amazon

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.psiexams.com](http://www.psiexams.com) (See order form at the end of the Candidate Information Bulletin.)

*International Plumbing Code 2015*, International Code Council, (800) 786-4452, [www.iccsafe.org](http://www.iccsafe.org).

*International Residential Code for One- and Two-Family Dwellings*, 2015, International Code Council, 5203 Leesburg Pike, Suite 600, Falls Church, VA 22041, (800) 786-4452, <http://shop.iccsafe.org/codes/2015-international-codes/2015-international-residential-code/2015-international-residential-code-for-one-and-two-family-dwellings.html>

*NFPA 70 National Electrical Code*, 2017 edition, National Fire Protection Association, 1 Batterymarch Park, Quincy, MA 02169, (800) 344-3555, [www.nfpa.org](http://www.nfpa.org).

*Pipe and Excavation Contracting*, 2011, Dave Roberts, Craftsman Book Company, P.O. Box 6500, Carlsbad, CA 92018, Phone (800) 829-8123, Fax (631) 924-6580, [www.craftsman-book.com](http://www.craftsman-book.com).

*The Drinking Water Book - How to Eliminate Harmful Toxins From Your Water*, 2nd edition, Colin Ingram; <https://www.amazon.com/Drinking-Water-Book-Eliminate-Harmful/dp/1587612577>

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.

