



## BACKFLOW & CROSS CONNECTION PDH WORKBOOK

Completion of this workbook will count for 1 PDH

Arizona Department of Environmental Quality  
Operator Certification Program  
1110 West Washington Street  
Phoenix, AZ 85007  
[www.azdeq.gov](http://www.azdeq.gov)

NAME\_\_\_\_\_

OPCERT NUMBER OP0\_\_\_\_\_

DATE\_\_\_\_\_

**Special Thanks to Amanda Lara and Gateway Community College**

## DIRECTIONS

A Professional Development Hour (PDH) is equal to one contact hour of continuing education. A total of 30 professional development hours are required for each 3-year renewal period regardless of the number of certificates that are held by an individual operator.

Answer the questions in the space provided with concise and accurate answers. Submit a copy of the completed workbook along with your renewal form when you renew your certificates. It is recommended that you keep a copy of the completed booklet for your records. Completion of this workbook will earn the operator one (1) PDH. Please print clearly. Workbooks that are illegible will not receive PDHs.

The type of PDH acceptable to the Department for certificate renewal include, but are not limited to: An approved college course, a course offered by a Certified Environmental Trainer, regulatory and tribal agency training, certain types of in-house training, technical conferences, correspondence courses, and manufacturer product training. An accredited college course is usually recorded in credit hours. In general, 1 college credit hour = 10 PDHs. If an operator has a question about a specific type of training, please contact the Operator Certification Program for approval before attending the training.

For additional training/PDHs click on the link below. This course provides 16 hours of PDH-approved training for drinking-water operators in the State of Arizona. These are available as individual lessons for credit or as a whole course.

<http://www.waterhelp.org/index.php/client/arizona>

FOR MORE INFORMATION, CONTACT:

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1. Define the following terms:

A. Backflow

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B. Cross-Connection

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C. Backsiphonage

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D. Backpressure

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E. Actual Cross-Connection

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F. Potential Cross-Connection

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2. What is the maximum height (in feet) that siphoned water can be lifted at sea level?

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3. What are the two conditions that can cause backflow?

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4. Can undersized distribution piping create negative pressure? If so, explain why.

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5. Which one of these is **not** a backflow control method or device?

- A. Double check valve assembly
- B. Air gap
- C. Reduced pressure zone backflow preventer
- D. Ball and socket joint
- E. Barometric Loop

6. Can Atmospheric Vacuum Breakers be used when there is backpressure?

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7. List four items that are covered under NSF/ANSI 61: Drinking Water System Components.

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**8.** List the three requirements of the Arizona Revised Statute R18-4-215. Backflow Prevention.

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**9.** What is potentially dangerous about any time pressure in the public drinking water drops to 0 psi or below?

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**10.**(True or False) The central chamber in a Reduced Pressure Zone Backflow Preventer is known as the reduced pressure zone.

- A. True
- B. False

**11.**If a SVB is used to protect a chemical dispenser, the backflow preventer must be installed\_\_\_\_\_ above the dispenser.

- A. 6"
- B.12'
- C.8"
- D.12"

**12.** What does Section 608.16.4. of International Plumbing Code address?

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**13.** What are the two exceptions for IPC 608.16.4?

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