# 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

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 five (5) PDHs. 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

_____
_____
_____
_____

B. Cross-Connection

_____
_____
_____
_____

C. Backsiphonage

_____
_____
_____
_____

D. Backpressure

_____
_____
_____
_____

E. Actual Cross-Connection

_____
_____
_____
_____

F. Potential Cross-Connection

_____
_____
_____
_____

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

_____
_____

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

_____
_____
_____
_____

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

_____
_____
_____
_____

**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?

_____
_____
_____
_____
_____

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

_____
_____
_____
_____
_____
_____
_____
_____

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

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

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

_____
_____
_____
_____
_____
_____
_____

**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?

_____
_____
_____
_____
_____
_____
_____

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

_____
_____
_____
_____
_____
_____
_____
_____

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SAVE