

**Scenario: Loss of Positive Pressure Situation**

**\* ABC Water Authority**

- CWS serving 1,500 people
- None of the on-site distribution crew members are certified operators
- The O&M Plan contains a copy of AWWA Standard C-651-05
- The line break is located in an area served by on-lot septic systems. Water lines were recently extended to serve drinking water in this area due to known overloaded septic systems.

**Timeline of Events**

8:00 AM	The Water Authority receives several complaints of water outages.
8:30 AM	Distribution crew members arrive on site, observe standing water in the street and suspect a water line break.
10:00 AM	A trench is dug and crew members observe a visible rupture in the main. The trench is filled with water.
10:30 AM	The trench is dewatered and further inspection reveals water is no longer leaking from the break.
11:00 AM	Crew members begin repairs.
3:00 PM	Repairs are completed. The lines are flushed.
3:30 PM	The main is returned to service.

## Answer Key

### Questions & Answers:

**1. Should this system have notified DEP within 1 hour?**

Yes. The system experienced a loss of positive pressure. The on-lot septic systems and flooded trench represent a high risk of contamination.

**2. If yes, when did the time clock start?**

10:30 AM

**3. Should this system have issued a BWA?**

Yes. There was a loss of positive pressure and a high risk of contamination.

**4. Were repairs completed as per Standard C-651-05 and DEP's policy?**

No. Disinfection procedures were not followed. Bacteriological samples were not taken and the system did not meet the criteria to avoid sampling.

**5. Did this system incur any violations?**

Yes.

109.4(3) Failure to effectively operate and maintain PWS facilities.

109.4(4) Failure to take investigative or corrective actions necessary to assure safe and potable water is continuously supplied.

109.408(a) & (b) Failure to consult with DEP and issue Tier 1 PN.

109.701(a)(3) Failure to notify DEP within 1 hour.

**6. If yes, what follow-up actions should this system and/or DEP take?**

DEP should issue a Field Order, requiring: PN in the form of a BWA within 24 hours, flushing, increased  $Cl^2$  residuals, and the collection of check samples until 2 consecutive days are negative.  
The system should comply with the Field Order.