

3. - BACKFLOW AT A DOCTOR'S OFFICE

DATE OF BACKFLOW INCIDENT: November 1993

LOCATION OF BACKFLOW INCIDENT: Wilson, North Carolina

SOURCE(S) OF INFORMATION:

- Drinking Water & Backflow Prevention, Volume 11 Number 2 (February 1994)
- Pacific Northwest Section of the American Water Works Association, Summary of Backflow Incidents, Fourth Edition, 1995

CASE HISTORY

On November 17, 1993, the Wilson, North Carolina, Water Distribution Division received a complaint from a clinic. The clinic was complaining about a strange, bitter taste and strong chemical odor to its water. Upon investigation, the City Water Distribution Division discovered that chemicals from a mixer used in x-ray development had backflowed into the clinic's potable water system.

A chemical mixer used in x-ray development at the clinic combined water with chemicals--developer and fixer. Water was added to the mixer using a garden hose connected to a hose bibb. Someone submerged the end of this garden hose in the mixer and, thus, created an indirect cross-connection. A hose bibb vacuum breaker was not in place on the hose bibb as required by code, although such a device had been in place when the local building department issued the final certificate of occupancy for the clinic.

On November 15, 1993, City Water Distribution Division personnel, working with a utility contractor, cut a section from the eight-inch-diameter water main in front of the clinic to replace a leaking tapping sleeve with a tee. They did this work during evening hours because the clinic would lose water service temporarily. While this work was being done, a negative pressure apparently developed in the water supply piping to or in the clinic. As a result, the chemicals in the mixer were backsiphoned through the garden hose mentioned above and into the clinic's potable water system.