

Top Sanitary Survey Deficiencies/Violations Informal Field Office Poll

The most “popular” deficiencies were {note they are in distribution, not at the water plant}:

- 1) Lack of documentation regarding disinfection practices on new lines and repairs or improper disinfection practices and bacteriological sampling on new lines and repairs.

While systems have SOPs and are keeping records, they don't always have the details down to specific numbers (pounds of HTH, test strip residual measurement, time between flushing and bacteriological sampling, etc.). Some are unclear on other requirements for bacteriological sampling after line placement, especially the 24-hr. vs. 48-hr methods. There is also a need for better tracking on systems with their own labs. It's usually just modifying the paperwork / logs and talking with the people in distribution.

- 2) Lack of proper cross connection programs – failure to do annual testing, follow-up on failed assemblies and surveys of the distribution system. Not performing inspections of air gaps, residential survey for potential new sites, or getting contractors to use forms that include all information.
- 3) Dead end lines without a flushing mechanism – additional blowoff valves needed; inadequate flushing program.

Additional frequent deficiencies in no particular priority include:

- 1) Construction without plans; construction without notification.
- 2) Failure to Monitor BacT - Total Coliform Rule
- 3) Failure to Monitor - chemicals
- 4) Inaccurate reporting of turbidity , chlorine data

Some systems need to upgrade to a Hach pocket colorimeter 2 if they are currently using a color wheel or DR. Most DR's won't read above 2.0 or 2.2 without going to a titration, so if they are leaving the plant with more than that, they need an instrument like the colorimeter 2 that can read high range and be checked with a secondary.

- 5) Turbidity trigger exceedances and failure to complete/ submit follow up report forms.
- 6) Failure to report highest turbidity every four hours.
- 7) Reporting of turbidity based on grab samples instead of combined effluent turbidimeter {and not using highest value of the two}
- 8) Combined effluent turbidimeter feed line installed on small water line causing intermittent false spikes.
- 9) Continuous monitoring equipment failures and subsequent monitoring violations -Grab samples not pulled.
- 10) Failure to perform or maintain Chlorine verification records and Turbidity calibration records with calibration every 90 days. Some systems are not doing verifications on their on-line turbidimeters and chlorine analyzers the way we have written in the regulations. It's usually a paperwork / log issue.
- 11) Plans submittals on new line extensions of less than 3000 feet and 10 connections (question of when engineer stamps are needed).
- 12) Failure to document and retain complete complaint records - not enough information to determine if problem was resolved
- 13) Operation Reports arriving late and sometimes with inaccurate data.
- 14) Storage tank inspections and maintenance - tank repairs not conducted in a timely manner following a professional inspection.
- 15) Need updated Emergency Plans, especially personnel changes; updating other plans as well.
- 16) Disinfection byproducts compliance – proper monitoring (quickest way to be a significant noncomplier - SNC).
- 17) No maintenance documentation (pump repairs, etc)
- 18) Screens and flap valves on clearwell overflow pipes and vent pipes missing
- 19) Distribution system maps that need to be updated

- 20) Need a recorder for the continuous chlorine analyzer for ground water systems, and the verification records for the analyzer (at least every 5 days). {recently effective Ground Water Rule} Areas of low pressure.
- 21) Painting for rust control.
- 22) Storage of non-water treatment chemicals near wells.
- 23) Records are disorganized.
- 24) Master meters rarely calibrated.
- 25) Reagents and standards out of date.
- 26) Chemical drums do not have necessary containment.
- 27) Letters to area fire departments not being routinely sent.
- 28) Not meeting public notice requirements.

Each water system should take a look at their most recent sanitary survey letter and make sure all of the deficiencies noted are corrected before their next sanitary survey. Repeat or redundant same deficiencies found again at their next sanitary survey may be dealt with more severely than when they were noted the first time.