

P^o. The Pipeline

Drinking Water Laboratory
Policy & Procedures Update

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Laboratory Contingency Plans

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It is very important that each certified laboratory have a written contingency plan. This written plan should outline what steps the laboratory will take during an emergency or other event that might inhibit the operation of the laboratory. Here are some examples of events that would be addressed by the contingency plan: The laboratory loses all certified analysts; the laboratory loses all fully approved analysts; the laboratory becomes non-functional because of an event such as loss of power, weather emergency, gas leak or any other event that would shut the lab down; loss of laboratory certification for any reason; loss of critical equipment; or any other event that would prevent the lab from operating normally. This plan, as previously noted must be in written form and inserted in the front of the QC record book. This applies to all certified drinking water laboratories, including both chemistry and microbiological laboratories. Enforcement of this requirement will begin in September 2001.



Microbiology Manual

All microbiology laboratories should have already received the 2001 edition of Laboratory Manual for Microbiological Analyses of Public Drinking Water. If you have not yet received a 2001 micro manual please contact Jacqueline Coleman-Williams at 614-644-4245 for a copy. If you need additional copies, please download and print out a copy from the Ohio EPA web site at: <http://www.epa.state.oh.us/ddagw/microman.pdf>



Alkalinity Test Problems

Despite previous articles outlining steps to take to prevent problems with interpreting alkalinity test results, problems continue to be seen with regularity in the field concerning the alkalinity test. About 90% of labs have analysts that titrate samples too far—they are not able to identify the correct endpoint. What follows is a synopsis of key elements in the alkalinity test: Samples where chlorine levels exceed 1.0 mg/L must be dechlorinated with a 0.1 N (or 10%) sodium thiosulfate solution. Add one drop (only one drop—no more) of the solution, after the phenol alkalinity test is done, **but before** the total alkalinity indicator (bromocresol green-methyl red) is added. Titrate the sample to a ‘dusky rose’ color—do not titrate it to a bright pink color. Since this titration is a visual check on pH, the only way you will know if the test is correct is if you check the endpoint with the pH meter. To do this, take the titrated sample and use a small portion to rinse out a pH container (or check pH in the titration vessel) and check the pH. The pH must be between 4.3-4.7. The target pH is 4.5. You don’t have to check the pH for each test, but you should check it initially and from time to time thereafter. We have seen some laboratories where the indicators in use do not change color at the correct pH. Using the pH meter will help to identify these types of problems—in this case the indicator must be replaced. You can also use a pH meter equipped with a fast response electrode to determine alkalinity directly. Titrate to a pH of 8.3 for phenol alkalinity and 4.5 (the acceptable range is 4.4-4.6 if using the pH meter) for total alkalinity. If you use a pH meter, rather than indicators, to determine alkalinity, you do not add any sodium thiosulfate or indicators to the sample.

**Problems with sample analysis -
let the public water system know!**

by Ildi Pallos, Ohio EPA, DDAGW

Occasionally, a lab may receive a sample from a public water system (PWS) that cannot be analyzed. For example, the container could be broken, the wrong preservative was used, or the holding time was exceeded. In other cases, the results of the sample analysis are suspect; that is, there could be QA/QC issues, or the results are inconsistent compared to historical data from that system. These two different types of problems impact the PWS in different ways. In the first case, if the lab cannot analyze the sample, the PWS has not met its monitoring requirements. In the second case, the PWS has met its monitoring requirements, but cannot use the sample results to verify compliance with drinking water standards, calculate any averages for that compliance period, or to demonstrate eligibility for a reduction in future monitoring requirements. Therefore, it is important that the lab immediately inform the PWS as well as Ohio EPA when problems are encountered with sample analysis.

Refresher - reporting sample results to Ohio EPA

by Ildi Pallos, Ohio EPA, DDAGW

Key points to remember: If there is a problem with a sample analysis, making the sample result suspect, submit a case narrative to Ohio EPA, with a brief outline of the problem. Please do not submit a form using DRINKware. DRINK is designed to handle valid sample results only. If a new sample was analyzed due to lab problems with the original sample, identify this submittal as "Compliance" rather than "Resample". "Resample" is a regulatory term used to identify samples that Ohio EPA requires a public water system to collect in order to confirm previous results, like when a system collects a sample to confirm an MCL. Each form must have a unique sample number. Please do not submit multiple forms with the same sample number. If multiple preservatives are used to analyze a sample, mark all the preservatives and submit all the results on one form. Compliance samples are generally collected at an entry point, not in the distribution system (Lead/Copper, Bacti, and THMs are the exceptions). In order to confirm the location of the sample monitoring point, please ask the public water system to identify the location where the sample was collected, in addition to the Sample Monitoring Point code. Enter this information in the "Remarks" section of the form.

Who to Call

VOCs/THMs - Rich Ciotola
Nitrates (Transient Systems) - Holly Kaloz
Nitrates (Community/Nontransient) - Wendy Sheeran
SOCs/Rads - Ildi Pallos
Inorganics - Kathy Pinto
DRINKware - Brian Tarver
Each of these people can be reached at (614)644-2752. If you have bacteria or lead/copper questions, please contact the appropriate district office.
Central District Office - (614) 728-3778
Northeast District Office - (330) 963-1200
Northwest District Office - (419) 352-8461
Southeast District Office - (740)385-8501
Southwest District Office - (937) 285-6357

Enforcement Update

Todd Kelleher, Ohio EPA, DDAGW

Due to quality control deviations and reporting violations, Tri-State Laboratories, Inc. will not be eligible to receive certificates of approval for the trace metals and wet chemistries until at least October 4, 2001. The deviations and violations affected approximately 189 public water systems. These systems were notified by the Ohio EPA of the deviations and were asked to resample. In addition, Tri-State Laboratories was also found to have deviations in procedures followed and equipment used for bacteriological analyses. These deviations affected approximately 140 public water systems. These systems were also notified by the Ohio EPA of the deviations. Based on the results of an on-site return survey in early May, Tri-State Laboratories, Inc. was issued certificates of approval for the bacteriological analyses.



Bob Taft, Governor of Ohio
Christopher Jones, Director of Ohio EPA



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