

MALEHA Environmental Health Forum
MPHI, 2436 Woodlake Dr. Okemos
January 18, 2018

Board of Directors:

Vern Johnson, Kalamazoo, President	Tony Drautz, Oakland, Director
Kristen Schweighoefer, Washtenaw, President Elect	Steve Demick, St. Clair, Director
Chris Westover, Monroe, Treasurer	Chris Klawuhn, Saginaw, Director
Adeline Hambley, Ottawa, Secretary	Tom Fountain, Benzie-Leelanau TC

Members: (TC = teleconference)

Regina Young, Barry-Eaton	Greg Cabose, Barry-Eaton	Paul Andriacchi, Branch Hillsdale St Jo
Kevin Green, Calhoun	Randy Rapp, Allegan TC	Mick McGuire, Cass-Van Buren TC
Suzanne Lieurance, Chippewa TC	Steve King, CMDHD TC	Scott Withington, Detroit TC
Chuck Lichon, DHD #2 TC	Daren Deyaert, Dickinson Iron TC	Jim Henry, Genesee TC
Rod McNeill, Ingham	Kasee Johnson, Lenawee TC	Cindy Merritt, Lenawee TC
Matt Bolang, Livingston	Amy Aumock, Livingston TC	Andrew Cox, Macomb
Patrick Jacuzzo, Marquette TC	Liz Braddock, Mid-MI	Jeff Croll, Muskegon TC
Mark Hansell, Oakland TC	Claudia Terrell, Oakland	Maureen Franklin, Wayne TC
Tanya Rule, Western UP TC	Pam Reuter, U of M TC	

Guests: (TC = teleconference)

Orlando Todd, MDHHS	Meghan Swain, MALPH	Dana DeBruyn, MDEQ
Dan Dettweiler, MDEQ	Sean Dunleavy, MDARD	Abiy Mussa, MDHHS
Mounica Nandula, MDHHS	Rick Ruzs, MDEQ	Greg Lindy, MDEQ
Kirby Shane, MDEQ	Scott Hayward, MDEQ	

1. **Call to Order:** Meeting called to order by Vern Johnson at 9:30am
2. **Approval of December 21, 2017 Minutes:** Motion to approve by Chris Klawuhn, support by Matt Bolang. Motion carried.
3. **Clandestine Drug Clean-up Workgroup—Dr. Abiy Mussa, MDHHS**

A workgroup is being formed to work on creating a guidance document for clean-up of clandestine drug labs to prevent negative health impacts and accidental overdose due to contaminated properties. The workgroup is being formed at request of the Michigan State Police for limits and protocols for clean-up. MDHHS is requesting 5-6 local public health EH Directors to participate. Group will meet monthly and will last for the maximum of two years. Vern requested that the specifics of the workgroup and the goals be submitted in a written document to be shared via listserv to create a list of interested EH Directors. Initial meeting to be scheduled in February.
4. **Officer & Affiliate Reports**
 - a. **President's Report**

Vern attended a meeting related to PFAS on January 11, 2018 MPART meeting. Information and slides from the meeting were shared via the listserv. The update provided discussed current activities related to PFAS at the State. There are concerns on the scope of the problem and response to known sites. Kory will be attending the February MALEHA meeting to discuss what is currently happening at the State and what will happen with this issue in the future. Of concern at the MALPH meeting was a statement by MDHHS that local public health is the first line of defense to this issue. Vern expressed concerns with this statement due to issues with the scope of the problem and the limited resources available at the local level to respond. Additional information can be found at www.michigan.gov/environmentalhealth.

MALEHA Board is having the first quarterly meeting with State Partners today after the MALEHA Forum meeting.

In February Vern will be attending a meeting at the State to review and discuss and the Statewide Sanitary Code. Additional information will be shared at future MALEHA meeting.

Tony had questions regarding the \$7 million that was allocated in the State budget for PFAS response. Orlando and Dana clarified that the issue is new and the details of how response and funding will work have not been worked out at this time. As it is a new and recent issue as defined by the Governor, these issues are still being discussed and worked out.

b. Treasurer's Report

Annual membership dues are currently coming in (reminder to get them submitted to Chris).

Motion by Regina Young, support by Tony Drautz to approve the January Treasurer's Report. Motion carried.

c. MALPH – Meghan Swain

The budget is currently in progress. There are some concerns with transportation and other areas, but the annual revenue conference had a positive outlook. As such, MALPH will be asking for additional funding for essential local public health. Governor will be releasing his budget the end of February, and may be an item of discussion during the State of the State Address in January 23, 2018. It is anticipated that PFAS will be mentioned during this address.

States will not know the full impact of the Federal tax plan until later in the spring. Michigan legislature are looking at income tax repeal again due to the changes at the federal level.

Michigan Premier Public Health Conference save the date was shared via the listserv. They would like to increase the number of EH topics presented at the conference. Please submit topics for presentation when the RFP is released. Conference will be held in Bay City in 2018.

PFAS Action Response Team is looking more at the clinical aspect of PFAS and not as heavily on the environmental clean-up side. Initial activities are to develop talking points for LHDs to help address public concerns and questions that may be received. Once developed, these talking points will be provided to LHDs.

d. MEHA—Sara Simmonds

From previous information:

MEHA Conference 2018 save the date flyer has been sent out. The 2018 conference will be held March 21-23, 2018. The Board is working on updating bylaws to allow for electronic voting for open positions.

5. State Department Reports

a. MDEQ—Laboratory Thermo-Preservation Requirements, Kirby Shane, Greg Lundy, and Scott Hayward

Presentation on sample thermo-preservation requirements for drinking water samples.
PowerPoint presentation provided via listserv.

Contact Information:

www.michigan.gov/deqlab

(517) 335-8184

b. **MDEQ—Parjana Update**, Rick Ruz

Bulk of work completed since permit issued (effective date May 1, 2016) have been in the southeast Michigan. In 2016 there were 16 installations. In individual circumstances where there are concerns that there are drinking water wells nearby the proposed location, MDEQ is requiring proof of municipal water surrounding the site.

2017—residential areas with city water and sewer there were 24 installs. Five sites requiring review and approval by the DEQ (non-residential). There has been one denial due to nearby drinking water wells.

Studies that are to be conducted by Parjana have not commenced. They are to select sites, but there has not been communication provided by Parjana on this item. MDEQ will be following-up on this item.

It is believed that the installation manual has been approved, but Rick will follow-up. A list of installations and summary will be compiled and provided to MALEHA.

A request was made to provide weekly reports of installations/permitting to LHDs. Rick is going to look into this and determine how best to share the information with the LHD where install is occurring.

Concerns were raised regarding the reported number of installations reported and how many were actually installed, as well as potential negative future impacts to Michigan groundwater as a result of these installations.

c. **MDHHS – Orlando Todd**

Hepatitis A outbreak occurring in southeast Michigan is currently ongoing. Additional counties have been added to the outbreak area. There have been numerous phone calls coming in regarding the outbreak, and the state is working to evaluate the process to provide efficient and appropriate response to callers. There have been discussions with the CDC regarding vaccine for the high risk population. This is a changing target as data are being collected and analyzed and trends are identified.

d. **DEQ—Dana DeBruyn**

Jeremy Hoeh is meeting with representatives today regarding with the Statewide Sanitary Code.

Onsite Wastewater Conference in early January had increased attendance and feedback has been good.

February 7, 2018 at Oshtemo Township Hall in Kalamazoo there will be a well training, more will likely be scheduled in 2018.

Current vacancy in non-community for plan review of treatment systems.

Radon test kits—what will the availability be moving forward? Dana will follow-up on this item.

Dan Dettweiler

Alan Gray—no longer allowed to work as a water operator or with water testing.

Summary of Existing and Proposed Lead and Copper Rule Requirements (handout is attached).

The MALEHA Water Committee is currently working on this issue and will provide a more detailed report next month.

Dan provided a brief overview of the “Summary of Existing and Proposed Lead and Copper Rule Requirements”. Draft changes does propose lowering the Lead Action Level from 15ppb to 10ppb. Goal is to highlight that levels under 15ppb are not “safe”. If there are detected values in taps, facility should be urged to replace or take taps out of service.

November 29, 2017 there was an information meeting at the Lansing Center. Turnout was not as expected, and it is believed it was due to a PFAS meeting occurring concurrently.

On March 1, 2018 there will be a public hearing on the proposed rule requirements (pending approval to move forward by the Governor).

e. **MDARD**—Sean Dunleavy

Fairs—Anticipating moving ahead with expansion of the program in 2018. Intent is to continue to do joint inspections with LHDs and MDARD inspectors for the first year of the program.

Foodborne Illness 2006 memo—provided at previous meeting. Very little feedback was received.

MDARD—applied for a five year grant (extension of current grant). Initial five year cycle was to look at capacity building, and this may extend with new grant cycle.

6. **Committee Reports**

a. **Food Committee**—Liz Braddock

- i. Updating EAP
- ii. John Tilden Project
- iii. Summer Feeding Program—currently no funding for 2018. Committee continues to work on creating

b. **Water Committee**—no updates at this time.

c. **Onsite & Land Use**--no updates at this time.

d. **Legislative**—no updates at this time.

- i. House Bill 4978—School Health Bill
Update provided via the listserv.

e. **Technology & Training**—Don Hayduk

- i. Submit topics for 2018 Director’s Conference to Don.

f. **Vapor Intrusion Ad-hoc**—Don Hayduk

- i. Next meeting will be February 7, 2018. Working to continue to develop response guidelines.

7. **MALEHA Member Reports (non-MALEHA Committee)**

a. **Medical Waste Pilot Program**

- i. No response to Vern’s letter. No other activity to report.

b. **DEQ Statewide Septic Code Workgroup**—no report at this time.

c. **Harmful Algal Blooms**

Meetings have shown that there are will likely be no funding for LHD response. There will be a presentation at the 2018 MEHA Conference.

d. **Cross Jurisdictional Sharing Project**

New EH Director and PH Director training/mentoring. Early discussions at this point.

e. **Communication Workgroup**—no report at this time.

8. **New Business**

9. **Items from Board**

10. **Items from Members**

11. **Future Agenda/Items**

- a. Kory Groetsch, MDHHS, to attend February meeting to discuss PFAS.
- b. Update on State Partner meeting with MALEHA Board in January.
- c. Statewide Sanitary Code update—March (update from February meeting with MDEQ).

Motion by Matt Bolang, support by Chris Westover to adjourn. Motion carried.

Meeting adjourned at 12:11pm

Submitted by:

Adeline Hambley 2/12/18

Approved x-xx-2018

_____, MALEHA Secretary



Michigan Association of Local Environmental Health Administrators MALEHA

Representing Local Environmental Public Health Departments in Michigan

Presidents Report *January 2018*

BOARD MEMBERS 2017-2018

President-

Vern Johnson
Kalamazoo County
269-373-5210

President Elect-

Kristen Schweighoefer
Washtenaw County
734-222-3968

Past-President- Vacant

Secretary-

Addie Hambley
Ottawa County
616-393-5645

Treasurer-

Chris Westover
Monroe County
734-240-7921

DIRECTORS

Tom Fountain (2020)
Benzie-Leelanau HD
(231)256-0200

Steve Demick (2018)
St. Clair County
810-987-5306

Tony Drautz (2018)
Oakland County
248-858-1320

Don Hayduk (2019)
Jackson County
517-788-4433

Chris Klawuhn(2017)
Saginaw County
989-758-3684

MDEQ

Rick Rusz with MDEQ will be presenting a Parjana update at the January 18, 2018 MALEHA meeting. Rick will be addressing MALEHA's concerns regarding the installation of the Parjana system. Information regarding Parjana can be found at: <http://parjanadistribution.com/>

MDEQ Laboratory Director, Kirby Shane will be addressing newer thermo-preservation requirements at our January 18, 2018 MALEHA meeting. Kirby will be discussing what it means if sample submissions do not meet the requirement and packaging strategies to meet the standard.

MDARD

MDARD is requesting of all interested LPH to participate in the Fair Pilot Project. January 5, 2018 is the deadline to submit applications. Keep in mind that this is a voluntary program.

MDARD staff will be holding 4 Plan Review trainings during 2018. Please see the December 20, 2017 MDARD Training Courses memo.

MALEHA Board Items:

The board will be meeting with our state partners on January 18, 2018. This will be our first quarterly meeting with our state partners. The intent of the quarterly meetings with the MALEHA Board is to maintain open lines of communication and establish common goals.

Active Hot Topics:

Several other topics are still active seeing current/weekly activity including:

- PFC/PFOA's/PFOS's
- Smoking on Restaurant Patios
- Department of Education Summer Feeding Program
- Cross Jurisdictional Sharing Project – Kevin Green will be representing MALEHA
- Vapor Intrusion
- Michigan draft Lead/Copper Rules

Submitted: Vern Johnson – 1/15/2018



Michigan Association of Local Environmental Health Administrators MALEHA

Representing Local Environmental Public Health Departments in Michigan

BOARD MEMBERS 2017-2018

President

Vern Johnson
Kalamazoo County
(269) 373-5210

President Elect

Kristen Schweighoefer
Washtenaw County
(734) 222-3968

Past-President

Vacant

Secretary

Addie Hambley
Ottawa County
(616) 393-5625

Treasurer

Chris Westover
Monroe County
(734) 240-7921

Directors

Tom Fountain (2020)
Benzie-Leelanau County
231 256-0200

Steve Demick (2018)
St. Clair County
(810) 987-5306

Tony Drautz (2018)
Oakland County
(248) 858-1320

Don Hayduk (2019)
Jackson County
(517) 788-4433

Chris Klawuhn (2019)
Saginaw County
(989) 758-3684

Treasurer's Report

January 2018

Starting Checking Balance (as of December 21, 2017)	\$14,306.17
Expenses	
Description	Amount
None	
Total Expenses	
Revenue	
Description	Amount
Annual MALEHA Dues	\$850.00
Total Revenue	
Current Adjusted Balance Checking Acct (as of January 18, 2018)	\$15,156.17

NOTES

Submitted by:
Chris Westover, 1-18-18

Approved:

SUMMARY OF EXISTING AND PROPOSED LEAD AND COPPER RULE REQUIREMENTS

State of Michigan

Drinking Water & Municipal
Assistance Division

The following proposals are *DRAFT* and subject to change as a result of public comment.

Current Lead & Copper Rule Requirements	DRAFT Changes to Lead & Copper Rule Requirements
Supplies not required to remove lead service lines unless Lead Action Level is exceeded after corrosion control treatment is installed.	Supplies required to remove lead service lines (LSLs) over the next 20 years, even if below the Lead Action Level, including lines with only lead "goose-necks" and galvanized lines that are or were connected to LSLs.
Partial lead service line replacements are allowed, leaving customer-side lead lines in place unless customer agrees to pay for their portion.	- Supplies must offer to replace private portion of lead service line at supply expense. - If owner declines offer, owner/occupant must be notified prior to partial LSL replacement, provided educational materials, and offered follow-up sampling.
Lead Action Level is 15 parts per billion (ppb)	Lower Lead Action Level to 10 ppb
No follow-up required for high lead levels at individual homes, except for consumer notification.	Create a Household Advisory Level of 40 ppb to trigger faster notice to residents, including information about obtaining blood testing and a household plumbing assessment.
Supplies can reduce lead and copper rule sampling to every three years.	Require supplies with corrosion control treatment and all large supplies (more than 50,000 people) to sample annually.
Supplies are responsible for communicating with customers about drinking water issues.	- Create Statewide Advisory Council to generate lead public awareness campaign materials. - Create Local Advisory Councils in larger cities to advise on distribution of educational materials in their community.
Many supplies still using their original distribution system materials evaluation. Original evaluations not required to be submitted to the state.	- Require updated distribution system materials inventories: preliminary inventory due 1/1/2020, verified inventory due 1/1/2024. - Require inventory be submitted to the state. - Require annual update to state on status of LSL replacement. - Require customers be notified if served by a LSL. - Make service line summary information available.
Original sampling pools were designated in 1990s and not required to be submitted to the state.	- Sampling pools must be reviewed and/or updated based on current materials inventory, and submitted to the state by 1/1/2020. - Emphasize sampling at sites with lead service lines, if present.
All valid compliance samples used to calculate lead and copper 90 th percentile values.	Only use highest result of valid compliance samples taken <u>at a site</u> to calculate lead and copper 90 th percentile values.
Only first-draw samples after at least 6 hours stagnation are used for compliance, potentially representing only water in the fixture and indoor plumbing.	Require second sample at sites served by a lead service line. Second sample taken after 6 liters of water has been drawn, to more closely represent water in the service line.
Recent guidance provided on maintaining corrosion control treatment when changing sources or treatment.	Clarify requirements for source water or treatment changes to ensure ongoing maintenance of optimal corrosion control treatment.

Draft proposals as of November 29, 2017



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



C. HEIDI GRETHOR
DIRECTOR

TO: Noncommunity Program Coordinators

FROM: Dan Dettweiler, Supervisor
Noncommunity Water Supplies Unit, Environmental Health Section
Drinking Water and Municipal Assistance Division

DATE: January 18, 2018

SUBJECT: Transitioning into Strict Adherence to the Thermal Preservation Requirement –
Samples that do not meet thermal preservation requirement will not be accepted

Recently, the USEPA has focused more attention on the thermal preservation requirement in evaluation of state drinking water programs, and the Michigan Department of Environmental Quality's (DEQ's) Gregg Lundy, Laboratory Certification Officer, Remediation and Redevelopment Division, responded by clarifying and making firm its intention to adhere strictly to the requirement in the State certification of private drinking water laboratories (memo sent to private laboratories, *Sample Preservation Update*, October 5, 2017).

The following guidance is offered in the transition to strict adherence to the thermal preservation requirement in 2018:

1. Local Health Departments (LHDs) and the DEQ must continue to get the word out to sample collectors, water supply owners, and operators.
 - a. LHDs can make use of a boilerplate from the DEQ's Noncommunity Water Supplies Unit (NWSU) that can be used on LHD letterhead.
 - b. Annual sampling schedules and reminder notices routinely sent by LHDs will emphasize information about thermal preservation requirements for chemical samples, including nitrate/nitrite.
 - c. County laboratories can plan their own education effort.
 - d. DEQ will explore other ways to provide direct communication to noncommunity water supply (NCWS) owners and operators.
2. Monitoring violations - LHDs will not be expected to issue chemical monitoring violations in cases where a sample collected in 2017 or earlier that did not meet the thermal requirement, is all that has been received. *In 2018, failure to submit a thermally preserved sample will cause a monitoring violation.*
 - a. Nitrate, Nitrite, VOC, SOC, TTHM-HAA5, Cyanide – Sample results received through the end of 2017, but where the sample failed to meet the thermal requirement, will be accepted, but a warning letter shall be issued by the LHD.
 - b. **Any 2018 sample that fails to meet the thermal preservation requirement shall be met by an immediate request from the LHD to the owner for a replacement sample.**



RICK SNYDER
GOVERNOR

STATE OF MICHIGAN
DEPARTMENT OF ENVIRONMENTAL QUALITY
LANSING



C. HEIDI GRETHOR
DIRECTOR

September 6, 2017

VIA E-MAIL

To Whom It May Concern:

Subject: Sample Preservation Update:

The laboratory certification program expects the proper sample containers and preservation techniques will be used for all sample analysis conducted for compliance purposes under the Safe Drinking Water Act. The preservation requirements can include both the chemical and thermal preservation of samples based on the analyte or methodology used. I've received both valid complaints and hearsay over the thermal preservation of samples lately, so I am providing clarification of what is expected of laboratories in determining the acceptability of a thermally preserved sample upon receipt at the laboratory.

The sample collector must immediately cool samples after collection by placing them into a refrigerator or placing them into a cooler with sufficient ice or blue ice to start the cooling process. It is recommended this procedure is documented on the sample information form or chain of custody in the form of a check box.

Using a calibrated thermometer or calibrated infrared thermometer, take and record the temperature of the sample or a temperature blank upon receipt at the laboratory.

If the recorded temperature meets the required thermal preservation range for the method, the sample is acceptable. **Note:** Different methods or analysis may have different temperature acceptance ranges, so all sample containers may not be acceptable. For the purposes of the State of Michigan Laboratory Certification Program, a 4°C requirement will have an acceptance range of just above freezing to 6°C.

If the sample temperature is not within the acceptance range, however was received at the laboratory within 24 hours from the time of collection still packed on ice or with frozen or partially frozen icepacks, the sample can be accepted. **Note:** This provision is for samples in the cooling process only. If the sample temperature is not within the acceptance range and was received at the laboratory in a cooler with little or no ice remaining or thawed ice packs, the sample should be rejected.

Sample containers received at the laboratory after 24 hours or more have elapsed from the time of collection and not meeting the specified sample temperature acceptance range should be rejected.

Sample Preservation References and Additional Information

Thermal preservation requirements are incorporated by reference into the MICHIGAN SAFE DRINKING WATER ACT 1976 PA 399, as Amended, MCL §§325.1001 to 325.1023 and the Administrative Rules, Supplying Water to the Public R 325.10101 to R 325.12820. Specifically, the Administrative Rule R 325.10605 of the Michigan Safe Drinking Water Act incorporates by reference the sample collection requirements from Title 40 of the Code of Federal Regulations (40 CFR), Part 141 – National Primary Drinking Water Regulations.

The thermal preservation requirements for most **inorganic analytes** are specified in 40 CFR 141.23 (k) (2). The excerpt including the preservation table is provided below.

The thermal preservation requirements for **organic analytes, disinfectant residuals, disinfection byproducts, disinfection byproduct precursors** are incorporated by reference from the approved analytical methods specified in 40 CFR 141.24 (e)(1) and 141.131.

The thermal preservation requirements for organic methods, disinfectant residuals, disinfection byproducts, and disinfection byproduct precursors and other regulated analytes incorporated by reference from the approved analytical methods vary. The method requirements must be followed.

Three examples are given below:

- 1) U.S. EPA Method 552.3, Revision 1.0, for Halo Acetic Acids analysis, Section 8.3 specifies:

"SAMPLE SHIPMENT AND STORAGE – All samples must be chilled during shipment and must not exceed 10°C during the first 48 hours after collection. Samples must be confirmed to be at or below 10°C when they are received at the laboratory. Samples stored in the lab must be held at or below 6°C and protected from light until extraction. Samples should not be frozen."

- 2) U.S. EPA 524.2, Revision 4.1, for Volatile analysis, Section 8.2.4 specifies:

"The samples must be chilled to about 4°C when collected and maintained at that temperature until analysis. Field samples that will not be received at the laboratory on the day of collection must be packaged for shipment with sufficient ice to ensure that they will arrive at the laboratory with a substantial amount of ice remaining in the cooler."

- 3) U.S. EPA 525.3, Version 1, for semi-volatile organic chemical analysis, Section 8.3 specifies:

Inorganic Analysis
Code of Federal Regulations
Title 40 – Protection of Environment
Part 141 – National Primary Drinking Water Regulations
141.23 (k)(2) - Inorganic chemical sampling and analytical requirements

Sample collection for antimony, arsenic, asbestos, barium, beryllium, cadmium, chromium, cyanide, fluoride, mercury, nickel, nitrate, nitrite, selenium, and thallium under this section shall be conducted using the sample preservation, container, and maximum holding time procedures specified in the table below:

Contaminant	Preservative ¹	Container ²	Time ³
Antimony	HNO ³	P or G	6 months
Arsenic	Conc HNO ₃ to pH <2	P or G	6 months
Asbestos	4°C	P or G	48 hours ⁴
Barium	HNO ³	P or G	6 months
Beryllium	HNO ³	P or G	6 months
Cadmium	HNO ³	P or G	6 months
Chromium	HNO ³	P or G	6 months
Cyanide	4°C, NaOH	P or G	14 days
Fluoride	None	P or G	1 month
Mercury	HNO ³	P or G	28 days
Nickel	HNO ³	P or G	6 months
Nitrate	4°C	P or G	48 hours ⁵
Nitrate-Nitrite ⁶	H ² SO ⁴	P or G	28 days
Nitrite	4°C	P or G	48 hours
Selenium	HNO ³	P or G	6 months
Thallium	HNO ³	P or G	6 months

¹For cyanide determinations samples must be adjusted with sodium hydroxide to pH 12 at the time of collection. When chilling is indicated the sample must be shipped and stored at 4°C or less. Acidification of nitrate or metals samples may be with a concentrated acid or a dilute (50% by volume) solution of the applicable concentrated acid. Acidification of samples for metals analysis is encouraged and allowed at the laboratory rather than at the time of sampling provided the shipping time and other instructions in Section 8.3 of EPA Methods 200.7 or 200.8 or 200.9 are followed. ²P = plastic, hard or soft; G = glass, hard or soft. ³In all cases samples should be analyzed

Inorganic Analysis
Code of Federal Regulations
Title 40 – Protection of Environment
Part 141 – National Primary Drinking Water Regulations
141.23 (k)(2) - Inorganic chemical sampling and analytical requirements

as soon after collection as possible. Follow additional (if any) information on preservation, containers or holding times that is specified in method. ⁴Instructions for containers, preservation procedures and holding times as specified in Method 100.2 must be adhered to for all compliance analyses including those conducted with Method 100.1. ⁵If the sample is chlorinated, the holding time for an unacidified sample kept at 4 °C is extended to 14 days. ⁶Nitrate-Nitrite refers to a measurement of total nitrate.