Bristol Town Administrator

From: ANR - DWGWP Info <ANR.DWGWPInfo@vermont.gov>
Sent: Wednesday, July 24, 2019 9:49 AM
To: Bristol Town Administrator
Subject: Statewide PFAS sampling requirements and information

Dear VALERIE CAPELS,

You are receiving this email because you are listed as a contact of at least one non-transient non-community (NTNC) or public community water system (PCWS) and under recent legislation, all PCWS and NTNC systems in Vermont are required to sample for perfluoroalkyl and polyfluoroalkyl substances (collectively referred to as PFAS) by **December 1, 2019**. You have likely already received or will soon be receiving a letter with the same information as this email. Senate Bill 49, passed by the General Assembly this year and signed by the Governor in May (and now known as Act 21), requires all PCWS and NTNC public water systems to sample for PFAS, issue public notice including a "Do Not Drink" notice to users if levels above 20 parts per trillion (ppt) are confirmed, and remedy the situation. This email provides information necessary to comply with these requirements.
The Drinking Water Program is providing training in conjunction with Vermont Rural Water Association (VRWA) in late July and August 2019 on why this legislation was passed, how to properly take a PFAS sample, what labs are available for analysis, and what to do about it if results exceed 20 ppt. We are providing this and other information on our website, which can be found at: https://dec.vermont.gov/water/drinking-water/water-quality-monitoring/pfas. In addition, the State of Vermont is providing municipalities and municipally-owned schools an opportunity for purchasing the services of a contractor who is skilled in the correct sampling of PFAS; these services are estimated to become available on or before August 1, 2019. Once the contract is awarded the list of selected contractors will be published to the web address listed above.

Background
Three years ago, widespread contamination of PFAS in private wells (primarily PFOA, one of 4000+ PFAS compounds) in North Bennington and Bennington was discovered. While extensions of public water systems provided safe water to those citizens, the State of Vermont realized that other parts of the state could be impacted and began a monitoring program to assess the extent of PFAS contamination in Vermont. These efforts are continuing. So far, we have learned that significant fire foam use (known as AFFF) can contaminate the environment, as well as certain manufacturing processes (an example is wire coating). Because consumer products containing PFAS are widely used, PFAS has also been found in leachfields and larger wastewater treatment plants.
An EPA study of PFAS, conducted in 2013 through 2015 at a dozen Vermont public water systems, did not find PFAS. However, there are approximately 650 PCWS and NTNC systems that we do not have information for the majority to say whether they are safe or not. Laboratory detection levels have improved, and we are now able to consistently and reliably determine if levels exceed the 20 ppt interim standard required by the General Assembly. Because of the lack of information on public water systems, the legislature thought it was important to sample at PCWS and NTNCs to ensure safety.
In addition to the requirement for PCWS and NTNC systems to test for PFAS by December 1st of this year, Act 21 requires the Agency of Natural Resources to establish a Maximum Contaminant Level (MCL) in the Water Supply Rule. As part of the formal rulemaking process the Drinking Water Program anticipates that a draft rule will be available in October on our website, identified above, for public comment.

Interim Standard PFAS monitoring - further details
The list below outlines specific information you should use to meet the December 1, 2019 PFAS sampling requirement:

- Monitoring is required representing treated water at each point of entry to distribution. This is the same sampling location for IOCs, VOCs, SOCs, and Radionuclides. A revised 2019 monitoring schedule has been posted online and available on the Vermont Drinking Water Database Search page at

https://anrweb.vt.gov/DEC/DWGWP. All public water system data, including PFAS, can be found on this website. If you are unable to access your monitoring schedule, have questions about your monitoring locations, or would like a paper copy of your schedule mailed, contact Janelle Wilbur at janelle.wilbur@vermont.gov or (802) 585-4898.

- 1 part per trillion (ppt) is equal to 1 nanogram per liter (ng/L).
- If you choose to sample yourself, and not purchase the services of the State's sampling contractor, it is important that you use good sampling technique. Given the low concentration of the standard, and the widespread presence of PFAS in the environment, it is quite possible to contaminate the sample ("false positive"). You will find proper sampling technique guidance here. You can also locate and register for classroom training through VRWA on their website at http://vtruralwater.org/training/schedule.php.
- Samples must be analyzed using EPA Method 537.1 by a laboratory with NELAP certification to perform that method. The list of acceptable labs can be found on the NELAP website at https://lams.nelac-institute.org/ and search by selecting method EPA 537.1. A current list of certified labs can also be found on our website in addition to laboratory and reporting guidance here. Labs must have a reporting level no higher than 2 ng/l for these 5 PFAS compounds:
  - **PFOA** (perfluorooctanoic acid)
  - **PFOS** (perfluorooctane sulfonic acid)
  - **PFHxS** (perfluorohexane sulfonic acid)
  - **PFHpA** (perfluoroheptanoic acid)
  - **PFNA** (perfluorononanoic acid)
- Samples will be rejected if they do not meet the 2 ng/L reporting level. The reporting level needs to be this low to assure that quantification to 10 ng/l (half the value of the 20 ng/L standard) can be done.
- All 18 of the analytes, including the 5 PFAS listed above, under EPA Method 537.1 must be analyzed by the certified lab and reported to the Drinking Water Program. PFAS lab reports can be emailed to **ANR.DWpfasdata@vermont.gov.** Lab reports should be submitted within 10 days of receiving sample results. Please note that only PFAS data can be submitted through email to this address. All other data must be submitted to the Drinking Water Program through US mail or fax.
- Proper sampling protocol requires both a "trip blank" and "field blank" to determine if potential detections are due to sampling error or handling. When the analytical lab sends your sampling bottles, the trip blank will be delivered at the same time (much like a VOC sample). The lab will also include a bottle of reagent water and extra sample bottles to prepare the field blank at each entry point sampling location. You will find instructions for proper preparation of field blanks here.
- The required sampling is considered initial monitoring for PFAS. Future monitoring frequencies will be determined based on the sample results and prior PFAS sampling data not analyzed by Method 537.1 will not be accepted.
- If sample results for the 5 PFAS identified above are at or exceed 20 ng/l (or ppt) either individually or cumulatively, please contact Janelle Wilbur at 802-585-4898 or janelle.wilbur@vermont.gov.

Do not reply to this email. If you have any questions on the requirements contained in this email, please contact Jeff Girard at (802) 585-0314 or jeff.girard@vermont.gov.

Agency of Natural Resources
Department of Environmental Conservation
Drinking Water & Groundwater Protection Division
1 National Life Drive – Main 2
Montpelier, VT 05620-3521

VERMONT

Vermont Department of Environmental Conservation
Drinking Water and Groundwater Protection Division
One National Life Drive - Main 2
Montpelier, VT 05620-3521
http://dec.vermont.gov/water

Date: July 18, 2019

SUBJECT: **Required statewide sampling for perfluoroalkyl and polyfluoroalkyl substances (PFAS)**

Dear Public Water System Contact:

You are receiving this letter because you are listed as a contact of at least one non-transient non-community (NTNC) or public community water system (PCWS) and under recent legislation, all PCWS and NTNC systems in Vermont are required to sample for perfluoroalkyl and polyfluoroalkyl substances (collectively referred to as PFAS) by **December 1, 2019**. Senate Bill 49, passed by the General Assembly this year and signed by the Governor in May (and now known as Act 21), requires all PCWS and NTNC public water systems to sample for PFAS, issue public notice including a "Do Not Drink" notice to users if levels above 20 parts per trillion (ppt) are confirmed, and remedy the situation. This letter provides information necessary to comply with these requirements.

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Interim Standard PFAS monitoring - further details

The list below outlines specific information you should use to meet the December 1, 2019 PFAS sampling requirement:

PFAS LABORATORY AND REPORTING INFORMATION

Sample Analysis:

Follow sampling guidelines, preservatives, and containers as specified in Method 537.1. Ensure that extraction and analysis holding times are met according to Section 8.5 of the Method. The preservative used should be 5 grams/liter of Trizma©, and sample containers should be 250 mL polypropylene sample bottles fitted with polypropylene screw caps. Trizma© acts as a buffer and removes free chlorine in chlorinated finished drinking water.

Analytical and Reporting Requirements:

The recommendations for determining a detection limit (DL) and reporting limit (RL) in method 537.1 shall be followed. The maximum acceptable laboratory reporting limit for each respective analyte for PFOA, PFOS, PFHxS, PFHpA, and PFNA is 2 ng/L. Sampling results shall be reported to the nearest 0.1 ng/L. All analytical laboratory reports shall report on all 18 analytes identified in EPA Method 537.1.

Laboratories must report PFAS in the acid form. Linear and branched isomers must be quantified and combined to determine the total. If standards containing the branched and linear isomers cannot be purchased, only the linear isomer can be identified and quantitated in field samples and QC samples using the linear standards because the retention time of the branched isomers cannot be confirmed.

Data Reporting:

Sampling results should be reported to the Drinking Water and Groundwater Protection Division (Division) within 10 days of receipt of a validated laboratory report and sent to the Division electronically using csv or Excel format. PDFs of lab reports may be submitted by email to ANR.DWpfasdata@vermont.gov. Please note that only PFAS data can be submitted through email to this address. All other data must be submitted to the Drinking Water Program through US mail or fax. **Prior sample results analyzed by a method other than EPA 537.1 will not be accepted under this requirement.** Data with qualifiers shall be flagged, particularly when detections are found in field blanks, trip blanks, and instrument blanks at or above the RL. Results with detections and/or qualified data must be submitted to the Division as soon as possible.

Ensure that the correct Facility ID and Sample Point codes found on the water system's routine monitoring schedule are used.

LIST OF LABORATORIES NELAP CERTIFIED FOR ANALYSIS OF PFAS BY 537.1

As of July 18, 2019, the laboratories meeting this certification are:

Alpha Analytical in Mansfield, Massachusetts
Battelle Analytical Chemistry Services Laboratory in Norwell, Massachusetts
Vista Analytical Laboratory, Inc. in E. Dorado Hills, California
Weck Laboratories, Inc. in City of Industry, California
Con-Test Analytical Laboratory, in East Longmeadow, Massachusetts
SGS-Accutest, Inc. in Orlando, Florida

PFAS SAMPLE COLLECTION INFORMATION

The following sampling procedure shall be followed in conjunction with ensuring none of the prohibited items identified in Table 1 below are present during sample collection:

1. The sampler shall wash their hands before sampling and wear powderless nitrile gloves while filling and sealing the sample bottles.
2. Turn on the tap and flush the water until the water temperature stabilizes (approximately 5 minutes). Do not sample from a garden hose, analyzer tubing, or irrigation devices. Use only cold water for sampling.
3. Fill sample bottles such that sample preservation reagent is not flushed out. It is acceptable for the sample bottle to have headspace.
4. After collecting the samples, cap the bottle and agitate by hand until the preservative is dissolved.
5. Label the bottle with the associated sampling location.
6. Keep the sample sealed from the time of collection until delivered to the laboratory.
7. Chill samples during shipment; samples shall not exceed 10 degrees Celsius (50 degrees Fahrenheit) until received by the laboratory.

In order to determine whether PFAS may have been introduced during sample collection and handling, a field reagent blank shall also be collected from each sampling site and at the same time of sampling. Field reagent blanks shall not contain preservatives. If PFAS are detected above reporting levels (2 ng/L) in the field reagent or trip blank, resampling will be required within two weeks of being notified.

Field blanks shall be prepared as follows:

a) Open the Field Reagent Blank at the location of the sampling site and pour the reagent water into the empty sample bottle that came with the Field Reagent Blank.
b) Seal the sample bottle.
c) Label the sample bottle as the Field Reagent Blank for the associated sampling site and ship it back to the laboratory along with the sample for the sampling site.

Trip blanks shall be prepared by the laboratory in advance and follow the sample containers and same shipping containers as the samples and return to laboratory. Trip blanks shall not be opened. Field blanks and Trip blanks do not need to be analyzed/reported if PFAS are not detected above reporting levels in the samples.