



Nicholas A. Toumpas
Commissioner

Marcella Jordan Bobinsky
Acting Director

STATE OF NEW HAMPSHIRE
DEPARTMENT OF HEALTH AND HUMAN SERVICES

29 HAZEN DRIVE, CONCORD, NH 03301-6527
603-271-4661 1-800-852-3345 Ext. 4661
Fax: 603-271-4760 TDD Access: 1-800-735-2964



New Hampshire Perfluorochemicals (PFCs) Testing Program

A public health service of the New Hampshire Department of Health and Human Services (DHHS)

Purpose:

The New Hampshire Department of Health and Human Services (DHHS) Perfluorochemicals (PFCs) Testing Program is conducted in response to the affected community members' request for clinical testing following consumption of water contaminated with PFCs. This testing will be performed for individuals who have consumed water contaminated with the specific PFCs, perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA) while working or attending child care at the Pease Tradeport. Testing is also offered to residents living near the Pease Tradeport whose private drinking water wells have been found to contain elevated PFOS or PFOA levels.

This assessment will:

- Respond to the affected community members' request for blood testing following the consumption of water contaminated with PFCs;
- Identify and test a convenience sample of affected community members who have consumed water from the contaminated water system at the Pease Tradeport or from contaminated private drinking water wells proximal to Pease Tradeport.
- Compare adult and adolescent serum levels with national levels identified through the Center for Disease Control and Prevention (CDC) 4th National Exposure Report/National Health and Nutrition Examination Survey (NHANES) updated tables.
- Compare pediatric serum levels for children younger than 12 years old to those reported in the article:

Schechter A, Malik-Bass N, Calafat AM, et al. Polyfluoroalkyl Compounds in Texas Children from Birth through 12 years of Age. *Environ Health Perspect.* 2012 Apr; 120(4):590-594.

Participant Selection

Adults

Adults will be selected for blood testing who meet the following criteria based on administration of a pre-screening, telephone questionnaire:

- Participant Selection -- Persons aged 18 years or older at the time of testing who:

- Report having consumed water from the contaminated Pease Tradeport water system as employees/workers on the Tradeport at anytime and for any duration,
- OR
- Report having consumed water from a contaminated private drinking well in proximity to the Pease Tradeport that was tested as part of the Pease Superfund Assessment and found to have levels of PFOS or PFOA above the EPA provisional health advisory level of 0.2 µg/L for PFOS, and/or 0.4 µg/L for PFOA.
- Register for testing by May 29, 2015, and are able to have a blood sample drawn by June 12, 2015.

To identify adult participants, DHHS will:

- Request that the Pease Tradeport Authority distribute notice of this blood testing activity (**Appendix A**), including enrollment requirements and educational materials on PFCs, to their approximately 200 businesses. This notice will include a DHHS Emergency Services Unit (ESU) phone number that interested persons can call to obtain additional information and register for participation.
- Issue a press release about this assessment (**Appendix B**), which will also be posted on the DHHS website.
- Pre-screen interested persons via phone (**Appendix C**).
- Request ESU actively invite residents with known contaminated private drinking water wells for pre-screening.

Children and Adolescents

Children and adolescents will be selected for blood testing whose parents/guardians confirm that the child meets the following criteria based on administration of a pre-screening, telephone questionnaire:

- Participant Selection – Persons aged 17 years or younger at the time of testing who:
 - Consumed water from the contaminated water system at the Pease Tradeport as attendees of childcare or as employees/workers on the Tradeport at anytime and for any duration,
 - OR
 - Consumed water from a contaminated private drinking well in proximity to the Pease Tradeport that was tested as part of the Pease Superfund Assessment and found to have levels of PFCs above the EPA provisional health advisory level of 0.2 µg/L for PFOS, and/or 0.4 µg/L for PFOA.
- Register for testing by May 29, 2015, and are able to have a blood sample drawn by June 12, 2015.

The child's parents/caregivers are also required to:

- Authorize collection of a tube of blood for PFC testing. If the child or adolescent is undergoing an already planned blood draw, the blood sample collection for PFC testing will need to be added on by the primary care provider (**Appendix D**). If there is no prior scheduled blood draw, the parent/caregiver will

be required to consult with the primary care provider to ensure there is no contraindication to a blood draw, and will need to attest to such on the Child Assent document prior to having NH DHHS arrange for the blood draw.

- Understand that levels of PFCs can only be compared to few studies that have been performed among children, and that the meaning of any level with regard to their child's health is not known.

To identify child and adolescent participants, DHHS proposes to:

- Request that the Pease Tradeport Authority distributes notice of this blood testing activity (**Appendix A**), including enrollment requirements and educational materials on PFCs, to their businesses and daycare centers. This notice will include an ESU phone number that interested persons and parents/caregivers can call to obtain additional information and register for participation.
- Issue a press release about this assessment (**Appendix B**), which will also be posted on the DHHS website.
- Pre-screen interested parents via phone (**Appendix C**).
- Have the DHHS ESU contact residents known to have contaminated private drinking water wells.

Procedures

DHHS will make the testing protocol available for stakeholder review, including but not limited to: NH DHHS, NH DES, representatives of local and state government, and the affected community. The testing program will be reviewed by the Dartmouth Committee for the Protection of Human Subjects. A general overview of the testing process is outlined in **Appendix E**.

The eligible participants will:

- Undergo pre-screening over the telephone using a questionnaire to select participants who meet inclusion criteria (**Appendix C**).
- Sign a participant consent form (**Appendix F**) that articulates the purpose, risks, and benefits of participation. In the case of child testing, the parent/guardian needs to acknowledge discussion with the primary care provider to ensure there is no contraindication to DHHS performing a blood draw.
- Answer a brief questionnaire (**Appendix G**) intended to:
 - Capture basic demographic information, including age and gender, which will help in interpretation of test results.
 - Estimate the amount of water consumed that may have been contaminated with PFOS and PFOA from the former Pease Air Force Base or affected private well.
 - Assess other potential exposures to PFCs.
- Receive educational material on PFCs to serve as a reference and reminder of key aspects of this testing program (**Appendix H**).

- When the consent form and questionnaire have been returned, DHHS will mail instructions to participants on the blood draw process (**Appendix I**).
- Adults: Have their blood drawn at the Portsmouth Hospital Phlebotomy Station at the Pease Tradeport (26 Manchester Square, Portsmouth, NH) by 06/12/15 which will be transported by DHHS courier to the Public Health Laboratories (see **Appendix J** for specimen collection protocol).
- Children: Have a tube of blood drawn (≤ 3 mL) for PFC testing at the Portsmouth Regional Hospital, Jackson Gray Medical Building (330 Borthwick Avenue, 1st floor Suite 112, Portsmouth, NH), by 06/12/15 which will be transported by DHHS courier to the Public Health Laboratories.

Protocol for preparing, shipping, and testing blood samples:

- Participants will not be charged for testing or phlebotomy.
- Participants will have their blood drawn at the Portsmouth Hospital Phlebotomy Station on the Pease Tradeport (adults and adolescents), the Portsmouth Regional Hospital Jackson Gray Medical Building (children), or another previously coordinated phlebotomy facility (children) per that facility's phlebotomy protocol.
- Samples will be labeled and stored per DHHS specimen collection protocol (**Appendix J**).
- A courier provided by the NH PHL will transport blood specimens from the site of the blood draw to the NH PHL.
- Blood samples will then be processed at the NH PHL and batched into batches of 30-40 samples.
- NH PHL will ship the batched samples to the testing lab where they will analyze samples.

Individual PFC test results will be reported back to participants as blood samples are tested and results received by NH DHHS (**Appendices K and L**). At the conclusion of the testing program, a summary of all results will be made available to the community without any personally identifiable information. The NH DHHS and the Northern New England Poison Center will provide consultation to participants and their primary care provider as necessary after test results have been distributed.

Any person inquiring about or requesting testing who either declines to participate or does not meet criteria for testing according to this protocol will be mailed separate letters (**Appendices M and N**).

Appendices to Expanded New Hampshire Perfluorochemicals (PFCs) Exposure Assessment

Appendix A	Invitation to Tradeport Business to Participate in Study Program
Appendix B	Press Release
Appendix C	Pre-Screening Questionnaire
Appendix D	Pediatrician letter
Appendix E	Participant Procedure Flow Chart
Appendix F	Participant Consent Form
Appendix G	Participant Questionnaire
Appendix H	Frequently Asked Questions on PFCs
Appendix I	Instructions for Blood Draw
Appendix J	Specimen Collection Protocol
Appendix K	Adult Cover Letter and Sample Report
Appendix L	Child Cover Letter and Sample Report
Appendix M	Participant declination letter
Appendix N	Participant not meeting study criteria letter



STATE OF NEW HAMPSHIRE
DEPARTMENT OF HEALTH AND HUMAN SERVICES

29 HAZEN DRIVE, CONCORD, NH 03301-6503
603-271-4612 1-800-852-3345 Ext. 4612
Fax: 603-271-4827 TDD Access: 1-800-735-2964



Nicholas A. Toumpas
Commissioner

Marcella Jordan Bobinsky
Acting Director

March 23, 2015

Company Name
Address
City, State Zip

To Whom It May Concern:

We are writing to invite individuals employed by your company to participate in the NH Department of Health and Human Services (DHHS) Perfluorochemicals (PFCs) Testing Program, which will measure two chemicals, perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS), in the blood of individuals who worked at the Pease Tradeport and may have consumed water from the contaminated Pease Tradeport water system.

The purpose of this testing program is to respond to requests from the affected community for individual testing. The NH DHHS testing program will involve a simple blood draw to measure the levels of these two chemicals in blood, and individual results will be provided to participants along with information on how their levels compare with other assessments. Not much is known about the long-term health effects of these chemicals, so the NH DHHS testing program will not be able to tell participants if the levels of PFOA and PFOS in their blood are harmful to their health.

Individuals may be eligible for this testing if they were employed at the Pease Tradeport on May 20, 2014, when the affected well was shut down and regularly consumed tap water on the Pease Tradeport. This also includes children enrolled in child care programs and regularly consumed tap water on the Pease Tradeport. Please inform all employees at your business and parents of children attending child care of this test program to encourage them to call (603) 271-9461 to answer a few simple questions to see if they are eligible to participate in the testing.

The Department of Health and Human Services is also conducting a Public Forum to explain the testing protocols and process, on March 31, 2015 at 6 p.m., at the Department of Environmental Services Regional Office, 222 International Drive, Portsmouth, NH.

Sincerely,

Benjamin P. Chan, MD, MPH
State Epidemiologist

NH Department of Health and Human Services
129 Pleasant Street – Hugh Gallen State Office Park
Concord, NH 03301

PRESS RELEASE
FOR IMMEDIATE RELEASE
March 19, 2015

CONTACT: Public Information Office 603-271-9389

Twitter: NHDHHSPIO
Facebook: NHDepartmentOfHealthAndHumanServices

NH Department of Health and Human Services Offering Testing for People Who Consumed Contaminated Pease Water

Concord, NH – The New Hampshire Department of Health and Human Services (DHHS), Division of Public Health Services is offering testing to people who consumed water from the Pease Tradeport water system that was determined in May 2014 to have levels of PFCs (perfluorochemicals) above the provisional health advisory levels set by the U.S. Environmental Protection Agency. The contaminated well was immediately shut down by the City of Portsmouth. The testing is being offered as a public service at the request of the affected community.

As details are finalized, the expectation is to start the blood drawing in the first week of April. Those people who may be eligible for the testing are those who were working or attending child care on the Pease Tradeport when the well was shut down in May 2014 and who consumed water from the Pease Water System. People who meet these guidelines and are interested in getting tested are invited to call the DHHS information line for this program at 603-271-9461 Monday-Friday 8:00 am to 4:00 pm. A public meeting to provide details about the testing program is also being planned to occur in the next few weeks.

PFOS (perfluorooctane sulfonic acid) and PFOA (perfluorooctanoic acid) are chemicals known as perfluorochemicals (PFCs). PFCs are a family of man-made chemicals that have been used for decades in the production of products that resist heat, oil, stains, grease, and water. PFCs are commonly used in the manufacturing of nonstick cookware, stain-resistant carpets, fabric coatings, some food packaging (especially microwave popcorn bags and fast food wrappers), firefighting foam, and in many other industrial applications. Many chemicals in this group, including PFOS and PFOA, are present in the environment, but they do not break down easily. It was the PFOS level in the Haven Well that was above the EPA provisional health advisory level.

“We are responding to the public request to know more about the level of PFOS and PFOA in their blood,” said Dr. José Montero, Director of Public Health at DHHS. “Unfortunately, no one knows what a typical level is or if these chemicals harm a person’s health. Most people in the United States have some level of these chemicals in their blood because PFCs are so pervasive in our environment. We hope this testing will offer reassurance to people who are understandably concerned about this situation.”

For more information about the Pease Superfund site and water monitoring visit the New Hampshire Department of Environmental Services at <http://des.nh.gov/organization/divisions/waste/hwrb/fss/superfund/summaries/pease.htm>.

To learn more about the water system at Pease, visit the City of Portsmouth website at <http://www.cityofportsmouth.com/publicworks/phwn.html>.

To read more about this investigation visit the New Hampshire Department of Health and Human Services at <http://www.dhhs.nh.gov/dphs/investigation-pease.htm>.

#

Pre-Screening Questionnaire

Purpose:

Field calls from concerned citizens who may have consumed water contaminated with Perfluorochemicals (PFCs), Perfluorooctanoic Acid (PFOA) and Perfluorooctane sulfonate (PFOS) from the water system at the Pease Tradeport or pre-identified private well.

Review Frequently Asked Questions developed as talking points for calls received. Log all calls into database.

Script:

Good morning, afternoon, etc.

This is the NH Department of Health and Human Services' Public Inquiry Line. My name is _____, how may I assist you?

Name: _____

Address: _____

Phone Number: _____

Email: _____

Date/Time: _____

1. Validation of consumption:

A. Do you or a family member work at the Pease Air Tradeport and consume the water?

Yes No

1. Name: _____ DOB: _____ Date From/To: _____
Name of Employer: _____

2. Name: _____ DOB: _____ Date From/To: _____
Name of Employer: _____

B. Does your child/ren consume water at the Pease Tradeport?

Yes No

1. Name: _____ DOB: _____ Date From/To _____
Childcare/School/Work: _____

2. Name: _____ DOB: _____ Date From/To _____
Childcare/School/Work: _____

3. Name: _____ DOB: _____ Date From/To _____

4. Childcare/School/Work: _____

Is your child scheduled for a blood draw with their Pediatrician or Primary Care Provider?

Yes No. If yes, what date? _____

If no, are you able to be complete the blood draws for all family members by June 12, 2015?

Yes No

2. Packet for Testing

You will receive documents in the mail. You will need to complete the Adult Questionnaire and Child Questionnaire for each family member to be tested. In addition, you will need to sign a consent form for each family member. Return documents in the self-addressed envelope.



STATE OF NEW HAMPSHIRE
DEPARTMENT OF HEALTH AND HUMAN SERVICES

29 HAZEN DRIVE, CONCORD, NH 03301-6503
603-271-4612 1-800-852-3345 Ext. 4612
Fax: 603-271-4827 TDD Access: 1-800-735-2964



Nicholas A. Toumpas
Commissioner

Marcella Jordan Bobinsky
Acting Director

June 1, 2015

[Pediatrician Name]
[Pediatrician Street Address]
[Pediatrician City, State, Zip code]

Dear [Pediatrician Name],

[Participant] has been identified by the NH Department of Health and Human Services (DHHS) as potentially being exposed to perfluorochemicals (PFCs) by drinking well water at, or in proximity to, the Pease Tradeport. As part of our PFC Testing Program, the parent/guardian of [participant] has requested to have their child's blood drawn in order to test blood levels of PFCs. There is no medical reason for this test since there is no known level which confers a health risk, and there is no accepted way to remove PFCs from the body. Regardless, the NH DHHS is willing to test at the parent's request.

To avoid unnecessary blood draws in children, however, we request that the blood specimen needed to test for PFCs be obtained during an already planned blood draw. If there is already a planned blood draw, we request that an extra tube of serum be ordered by [participant's] primary healthcare provider to be drawn and then transported by courier to the NH Public Health Laboratories (PHL).

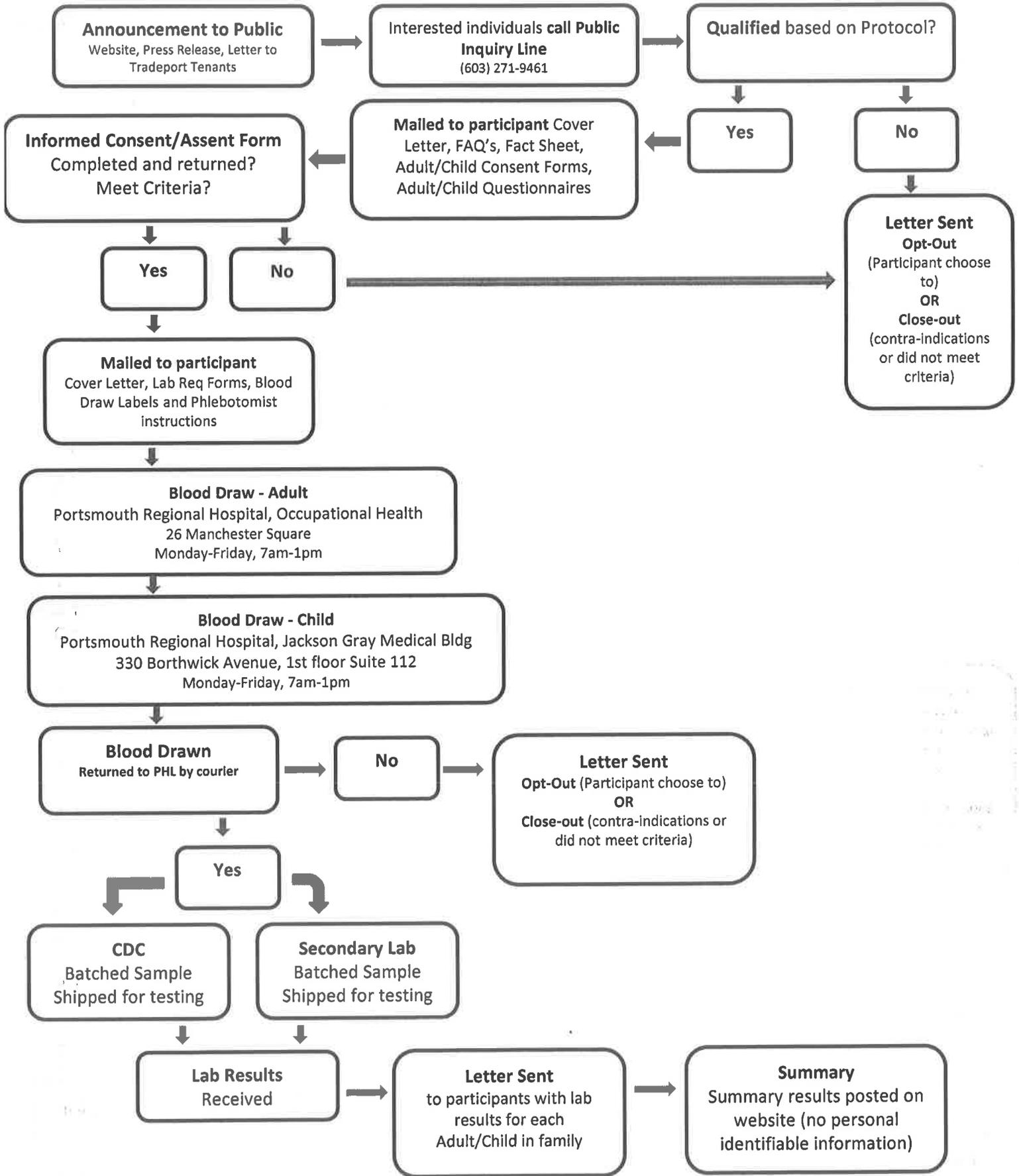
At the time of the blood draw, the patient and his/her guardian will need to present to the phlebotomist their requisition form, which will have a participant identification number and an extra set of labels for use on the specimen. The phlebotomist will need to collect one tube of serum (<3 mL) in a yellow or tiger top tube. The phlebotomist will then need to affix the participant label to the blood tube, ensure that the labels on the tube and the requisition slip match, refrigerate the specimen, and contact the NH Public Health Lab (PHL) at (603) 271-4661 to arrange for a courier to transport the blood specimen.

If you have any additional questions regarding this assessment please call 603-271-9461.

Sincerely,

Dr. Benjamin Chan, MD, MPH
State Epidemiologist

**NH DHHS Perfluorochemicals (PFCs) Pease Testing Program
Participant Flow Chart
March 30, 2015**





Nicholas A. Toumpas
Commissioner

Marcella Jordan Bobinsky
Acting Director

STATE OF NEW HAMPSHIRE
DEPARTMENT OF HEALTH AND HUMAN SERVICES

29 HAZEN DRIVE, CONCORD, NH 03301-6503
603-271-4612 1-800-852-3345 Ext. 4612
Fax: 603-271-4827 TDD Access: 1-800-735-2964

Appendix F



June 1, 2015

«chrFirstName» «chrLastName»
«chrAddress»
«chrCity», «chrState» «chrZip»

Dear «chrFirstName»,

As per instructions from the NH Department of Health and Human Services (DHHS) Public Inquiry Line, enclosed are two forms for each member who wants to be tested for your review, completion and return. The first is a questionnaire which will help us gain information about the type and duration of exposure to perfluorochemicals. The second is a consent form for the blood draw. Both forms must be signed, dated and returned to our office.

Returned forms will be reviewed to make sure there are no contraindications for you and/or a family member to have your blood drawn. After review of these forms, you will receive additional paperwork from DHHS to complete the testing process.

Please note that in order to assure timely reporting of test results; all forms must be returned to our office by May 29, 2015 and all blood draws must be completed by June 12, 2015. Enclosed is a self-addressed envelope for your convenience.

If you have any questions please call the NH Department of Health and Human Services, Public Inquiry Line at 603-271-9461.

Sincerely,

Benjamin P. Chan, MD, MPH
State Epidemiologist



STATE OF NEW HAMPSHIRE
DEPARTMENT OF HEALTH AND HUMAN SERVICES

29 HAZEN DRIVE, CONCORD, NH 03301-6503
603-271-4612 1-800-852-3345 Ext. 4612
Fax: 603-271-4827 TDD Access: 1-800-735-2964



Nicholas A. Toumpas
Commissioner

Marcella Jordan Bobinsky
Acting Director

DHHS Use Only

Participant Identification Number _____

Date: _____

**NH DHHS Perfluorochemicals (PFCs) Testing Program
Participant Informed Consent**

Introduction: The NH Department of Environmental Services (DES) found perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) in the water at the Pease Tradeport. PFOA and PFOS are perfluorochemicals (PFCs) that are used in industry and manufacturing and which can be found in our environment. If these PFCs get into someone's body by eating or drinking them, they may be found in their blood for years. But it is not known if they harm the person's health.

The Division of Public Health Services (DPHS) at the NH Department of Health and Human Services (DHHS) has organized a blood testing program as a public service. Other agencies have given advice, including the U.S. Centers for Disease Control and Prevention (CDC), the NH DES, and local government of the affected community.

You may be eligible to have your blood tested for PFCs if you consumed water from the contaminated source while working on, living near or being in child care at the Pease Tradeport. "Consumed water" means that you drank water or drinks made with this water, or ate food prepared with this water.

Purpose: The most important reason for this blood testing program is as a public service to let people who have consumed the water from the Pease Tradeport know what their PFC blood levels are. This program cannot give you any information about whether PFCs have caused or will cause any health problems.

Procedures: If you want to be a part of this program, NH DHHS staff first will give you a list of less than ten questions about when, where and how much water you may have consumed. This should take less than 10 minutes to complete. NH DHHS will review your answers and contact you and confirm your participation, provide you paperwork necessary, and instructions for having your blood drawn at the Portsmouth Regional Hospital Laboratory. A Portsmouth Hospital phlebotomist will draw a small amount (about 4 teaspoons) of blood, and put a code number on your sample.

A DHHS courier will drive your blood sample to the DHHS Public Health Laboratories (PHL). The PHL will store your blood until they ship all the samples to the testing laboratory where PFC levels will be measured. There will be no charge to you for the blood draw, transport, storage or testing.

When the laboratory gives the DPHS the results, DPHS will mail your blood test results to you at the address you wrote down on the questionnaire. Some people may feel worried about their results, if you want to discuss your results with someone working with the testing program, contact information will be provided. DPHS will also give you the combined results of everyone's testing for comparison.

If any of your blood is leftover from the testing, the laboratory will keep it only while the testing program is going on. When the PFC testing is complete, the laboratory will discard your blood.

Risks of Being in the Testing Program: Anytime you have blood drawn, you may feel a sharp sting from the needle. Sometimes a bruise or small blood clot appears at the site. These bruises or clots usually go away on their own. This risk is higher if your blood doesn't clot well, which happens if you are taking blood thinning medications (like Coumadin). It is very rare, but the needle can also cause injury to a nerve or introduce an infection. We are reducing these risks by having only trained professionals draw your blood, but you or your insurance company is responsible for any follow-up care if you are hurt as a result of being in this program. In some participants, especially young children, having blood drawn with a needle can also be an emotionally distressing event.

No one knows what test result is safe or unsafe. You can only compare your test result with other people who have had their blood tested in other testing programs.

Benefits of Participating in this Program: There is no direct benefit to your health from being part of this program.

Confidentiality: All personal information collected for this program will be kept private according to New Hampshire and federal laws. Only DHHS project staff can see your information, and all of your information will be kept in a secure, locked database or file at all times. You are the only person who will get your specific test results.

Voluntary Participation: You can choose if you want to be a part of this program. Your choice will not affect your current or future relationships with DHHS, DPHS or the other groups that are part of the program. If you choose to be in this program, you can stop being in the program at any time. If you do not qualify to be in program, DHHS may also end your participation without your consent.

Contacts and Questions: If you have any questions during or after the program, you can call the DHHS Public Inquiry Line at 603-271-9461. If your primary care provider has questions, he or she may also call this number.

By marking the check boxes below and signing this form, you are confirming that you had a chance to ask questions, and that you choose to be in the program. You are also agreeing to allow the project staff to collect, store, and share the information gathered as described above. We will give you a copy of this consent for your records.

I understand that I will receive my, and/or my child's, blood test results by mail.

yes no

I understand that project staff will not be able to tell me if the PFC levels in my, or my child's, blood will harm my, or my child's, health.

yes no

For Adults 18 Years of Age or Older:

I choose to participate in the NH DHHS Testing Program.

yes no

Participant's Name: _____
(printed)

Participant's Address: _____
(printed)

Participant's Signature: _____

Witness:

Witness Name: _____
(printed)

Witness Signature: _____

Date: _____

For Parent/Guardian of a Minor Under 18 Years of Age:

By checking this box, I acknowledge that I have discussed testing with my child's primary care provider, and there is no medical reason which would prevent my child from having his/her blood drawn.

I choose to have my child participate in the NH DHHS Testing Program.

yes no

Child's Name: _____
(printed)

Address of Parent/Guardian: _____
(printed)

Child's Primary Care Provider's Name: _____

Child's Primary Care Provider's Address: _____

Parent/Guardian Signature: _____

Date Signed: _____

NH DHHS - Division of Public Health
129 Pleasant Street, Concord, NH 03301
Public Inquiry Line: (603) 271-9461

DHHS Use Only
Participant Identification Number _____
Date: _____

**NH DHHS Perfluorochemicals (PFCs) Testing Program
Adult Participant Questionnaire**

Individual to be tested:					
Last Name	First Name	MI	Suffix	Gender	Date of Birth
Address:				City, State, Zip	
Phone:				email:	

1. Do you work at the Pease Tradeport?
Name of company or companies (please list all)? _____
Dates of employment (please list all): _____
2. Did you consume water at the Tradeport? Yes No
How many cups of water per day, on average, were consumed (drinking, cooking, etc.)? _____
3. Do you have a private well that tested positive for PFOA/PFOS? Yes No
How many cups of water per day, on average, were consumed (drinking, cooking, etc.)? _____
How long have you lived at this address? _____
4. Do you have abnormal kidney function, or are undergoing dialysis or other kidney replacement therapy? Yes No
5. Are you now, or have you ever been, a professional or volunteer firefighter? Yes No
Dates: _____
6. Are you able to have your blood drawn before June 12, 2015? Yes No

Participant's Name: _____
(printed)

Participant's Signature: _____

NH DHHS - Division of Public Health
 129 Pleasant Street, Concord, NH 03301
 Public Inquiry Line: (603) 271-9461

DHHS Use Only Participant Identification Number _____ Date: _____
--

**NH DHHS Perfluorochemicals (PFCs) Testing Program
 Child Participant Questionnaire**

Individual to be tested:						
Last Name	First Name	MI	Suffix	Gender	DOB	Age
Address:				City, State, Zip		
Phone:				email:		

- Does your child attend child care at the Pease Tradeport? Yes No
 Child Care Center Name: _____
 Dates of Attendance _____
- Does your child work at the Pease Tradeport? Yes No
 Place of Employment: _____
 Dates of Employment: _____
- Did s/he consume water at the Pease Tradeport? Yes No
 How many cups of water per day, on average, were consumed (Formula, Drinking, Cooking, etc.)? _____
- Do you have a private well that tested positive for PFOA/PFOS? Yes No
 How many cups of water per day, on average, were consumed (Formula, Drinking, Cooking, etc.)? _____
 How long has s/he lived at this address? _____
- Does s/he have abnormal kidney function, or is undergoing dialysis or other kidney replacement therapy? Yes No
- Have you discussed your child's blood draw with their Pediatrician? Yes No
- Are you able to have your child's blood drawn before June 12, 2015? Yes No

Parent/Guardian's Name: _____

(printed)

Parent/Guardian's Signature: _____

Date Signed: _____



Nicholas A. Toumpas
Commissioner

Marcella Jordan Bobinsky
Acting Director

STATE OF NEW HAMPSHIRE
DEPARTMENT OF HEALTH AND HUMAN SERVICES

29 HAZEN DRIVE, CONCORD, NH 03301-6503
603-271-4612 1-800-852-3345 Ext. 4612
Fax: 603-271-4827 TDD Access: 1-800-735-2964



Frequently Asked Questions
Appendix H

June 1, 2015

Frequently Asked Questions:
Perfluorochemicals (PFCs) Detected in the Pease Tradeport Water System

Background Information

The Pease Tradeport, formerly the Pease Air Force Base, is an Environmental Protection Agency (EPA) Superfund site. A Superfund site is an uncontrolled or abandoned area where hazardous waste is located, possibly affecting the ecosystem and/or people. In April 2014, the three wells supplying drinking water to the Pease Tradeport were tested for perfluorochemicals (PFCs) for the first time, because these chemicals are considered an emerging contaminant of concern.

On May 12, 2014, the U.S. Air Force notified the New Hampshire Department of Environmental Services (DES) that water samples collected from the Haven well on April 16, 2014 showed levels of perfluorooctane sulfonic acid (PFOS) that were above the provisional health advisory (PHA) level set by the EPA. Perfluorooctanoic acid (PFOA) was also elevated but at a level just below the PHA. Additional testing showed PFOS and PFOA were detectable at the Smith and Harrison wells, the two other water supply wells located at the Tradeport, but at levels well below the PHA. The water from all three wells was sampled at the well; levels were not tested from the tap, but are presumed to be lower because water from the three wells was mixed together, diluting the PFOS and PFOA.

DES immediately notified the City of Portsmouth, which shut down the Haven well. The other two wells are still in use. DES, the EPA, and the Air Force are conducting ongoing testing and investigations to ensure the water in these wells and surrounding private wells remains safe.

I. General Information on PFCs

What are PFCs?

PFOS and PFOA are part of a group of chemicals known as perfluorochemicals (PFCs), or perfluoroalkyls. PFCs are man-made chemicals that have been used for decades to manufacture household and commercial products that resist heat, oil, stains, grease, and water.

Many PFCs, including PFOA and PFOS, are commonly found in our environment and do not break down easily. PFOA and PFOS are the only two PFCs for which the EPA has developed provisional health advisory levels in drinking water.

What are PFCs used for?

PFCs are used in many applications, including manufacturing nonstick cookware and for surface protection in stain-resistant carpets, clothing, furniture, and some paper and cardboard products used for food packaging (e.g., microwave popcorn bags, fast food wrappers, and pizza boxes). PFCs are also used in firefighting foam, which is thought to be the cause of the Haven well contamination. These chemicals are being phased out of use in commercial and home applications. In 2002, the 3M Company, the primary manufacturer of PFOS, completed a voluntary phase-out of production of PFOS and related PFCs. In 2006, eight major manufacturers of PFCs committed to working towards the elimination of PFOA from emissions and products by 2015. The EPA estimates that these companies are on track to eliminate PFOA by the end of 2015.

What do we know about PFCs in the environment?

PFCs have been found in soil, air, and water and are not broken down easily in the environment. PFCs in air emissions are thought to remain in the air for days to weeks, and can travel long distances before falling to the ground. PFCs are also able to move through soil and easily enter groundwater where they can travel long distances. Because PFCs remain in the environment for a long time, environmental exposure will still be possible even after production of these chemicals stops.

How are people exposed to PFCs?

People are most likely to be exposed to PFCs by ingesting them. This includes:

- Drinking contaminated water
- Eating food that may contain high levels of PFCs (e.g., fish and shellfish)
- Eating food contaminated by packaging materials containing PFCs (e.g., popcorn bags, fast food containers, pizza boxes)
- Hand-to-mouth transfer from treated surfaces such as carpets, which is thought to be most significant for infants and toddlers

People can also breathe in PFCs by breathing air that contains dust contaminated with PFCs (from carpets, upholstery, clothing, etc.), or from fabric sprays that contain PFCs. Skin contact with the chemicals does not cause a significant absorption of PFCs. Workers in industries that manufacture or use PFCs may be exposed to these chemicals in much greater amounts than the general public.

Infants may be exposed to PFCs through breast milk, but PFCs do not appear to be highly concentrated in breast milk. An unborn child can be exposed to PFCs from the mother's blood

because PFCs also can cross the placenta, although different PFCs cross the placenta in different amounts.

Are there regulations, standards or guidelines about PFCs in drinking water?

Neither the federal government nor the State of New Hampshire regulates PFCs in drinking water and there are no state or federal enforceable standards. Under the Federal Safe Drinking Water Act, the EPA identifies contaminants in public drinking water that need further study to determine if a standard should be established. PFCs are among the contaminants being monitored, and the EPA has developed provisional drinking water standards for PFOS and PFOA.

A provisional health advisory reflects levels that are currently considered safe for both adults and children. The provisional levels for PFOS and PFOA are based on adverse effects in animals exposed to varying concentrations of PFCs. The provisional health advisory levels are 0.4 parts per billion (ppb) for PFOA and 0.2 ppb for PFOS. Levels above these require action to reduce exposure.

What do we know about PFCs in people?

Studies show that nearly all people have PFCs in their blood, regardless of age. Some PFCs, including PFOA and PFOS, stay in the human body for many years; the time it takes for blood levels to go down by half is about four years for PFOA and five years for PFOS.

Because these chemicals stay in the body for a long time, it is difficult to determine how changes in diet, lifestyle, and other factors affect PFC blood levels. The CDC's National Health and Nutrition Examination Survey monitors the general U.S. population, and because PFCs have been phased out of production over the last 15 years, the average level of PFOA and PFOS in people's blood has been decreasing. Based on the most recent data (2011–2012), the average blood level of PFOA is 2.1 parts per billion (with 95% of the general population below 5.7 parts per billion) and the average blood level of PFOS is 6.3 ppb (with 95% of the general population below 21.7 parts per billion). Studies of workers at chemical plants have shown individual blood PFC levels in the hundreds or thousands of parts per billion.

What are the health risks to people who have consumed PFCs?

Some animal studies have shown ill effects in animals, but this does not necessarily predict effects in people. Human studies have evaluated whether PFCs can cause a variety of health effects, including changes to the liver, cholesterol levels, sex hormone and thyroid hormone levels, immune function, kidney function, incidence of diabetes, and occurrence of cancers. Many of these studies look at health problems in one geographic population and are unable to conclude whether an observed problem is because of PFC exposure, some other unknown cause, or just chance alone.

These studies do not show a consistent health effect, and many show conflicting and contradictory results, so no one can be sure about the health effects of PFCs on humans. Further study is needed to say whether PFCs cause health changes in humans.

Do PFCs cause cancer?

Because of inconsistencies between studies and contradictory findings, there have not been any definitive conclusions by the CDC or EPA about a link between PFC exposure and cancer in people. Additional studies are needed to determine the risk of cancer.

Animal studies have suggested an increase in certain types of glandular cancers, called adenomas, related to PFOA and PFOS exposure. These include liver, testicular, pancreatic, and thyroid adenomas. However, the way that animals' bodies process these PFCs is not necessarily the same way that humans' bodies do. In addition, most of the animal studies evaluated significantly higher levels of exposure than those typically seen in humans. For these reasons, data on health effects in animals cannot be assumed to predict health effects in people.

Studies have also looked for a connection between PFCs and cancers in three groups of people: workers exposed on the job, communities that have been exposed to environmental contamination, and the general public. Some studies have not shown any connection between PFOS and/or PFOA exposure and cancers, including the studies of workers exposed to high levels. Several studies of exposed communities have shown a small possible connection to cancers of the prostate, kidney, testicles, bladder, and thyroid; however, these studies have been inconsistent, and unaccounted for factors other than PFCs could possibly have caused the findings.

Are children more susceptible to potential health effects from PFCs?

Hand-to-mouth exposure from environmental sources (carpets, dust, etc.) is a more significant source of PFC exposure for infants and toddlers, who crawl on the ground and often put hands and objects into their mouths. Because of their smaller size, children also can be exposed to higher doses of PFCs for their body weight than an adult.

A variety of health outcomes in children have been studied related to PFOA and PFOS exposure, including fetal growth and development, cognitive and behavioral development, immune function, thyroid function, and reproductive development and function. There has been no consistent evidence demonstrating an effect of PFOA and PFOS on these outcomes. These studies have also suffered from problems with inconsistencies and conflicting findings.

Do PFCs pose a health risk to pregnant women?

There has not been any convincing evidence that PFOA or PFOS exposure has an effect on miscarriage or birth defect rates. One of the most studied health effects has been the effect of PFOA and PFOS exposure on weight and size of fetuses (unborn babies). Some studies

have hinted that PFOA and PFOS exposure may lead to decreased fetal weight and size, but these studies are inconclusive. Follow-up studies have suggested that these children with low birth weight grow at normal rates.

II. Pease Tradeport Water Contamination

What happened at the Pease Tradeport?

In April 2014 the three wells supplying drinking water to the Tradeport were tested for PFCs for the first time. It was found that the Haven well had elevated levels of PFOS and PFOA relative to the EPA's provisional health advisory (PHA) levels for drinking water. The level of PFOS was 2.5 parts per billion (ppb), above the PHA level of 0.2 ppb, while the level of PFOA was 0.35 ppb, just below the PHA level of 0.4 ppb.

The levels of these chemicals in the other two wells supplying water to the Tradeport were far below the EPA's provisional levels. The levels were measured at the wellhead. Because the tap water at the Tradeport drew from all three wells, the levels in the drinking water are presumed to be significantly lower than levels measured at the Haven wellhead.

Are the wells still in use?

The Haven well was closed immediately by the City of Portsmouth once the PFC levels were known. The other two wells remain in use and are needed to adequately supply water to the Pease Tradeport.

How did the Haven well become contaminated with PFCs?

The Tradeport operated as an Air Force base from 1956 to 1991. It is suspected that starting around 1970 firefighting foam containing PFCs that was used by the Air Force for plane crashes and training exercises leached into the ground and contaminated area groundwater. The former base is currently a Superfund site and is monitored by the N.H. DES and the U.S. EPA.

<http://des.nh.gov/organization/divisions/waste/hwrb/fss/superfund/summaries/pease.htm>.

Who has potentially been exposed to PFCs from the Haven well?

People who have consumed water from the Tradeport water system may have been exposed to PFCs; however, it is unknown for how long, or at what levels, PFCs have been in the drinking water. The Tradeport wells primarily serve businesses located at the Tradeport, as well as the Air Force and New Hampshire Air National Guard facilities. Water from these wells can provide emergency backup to the Portsmouth water supply, but has been used infrequently for this purpose. As a precaution, the City of Portsmouth's seven water sources were tested for PFCs in May 2014 and no PFCs were found in the city water supply.

The Tradeport water system was also connected to portions of Newington in April to improve fire flow capability for its new library. Now that the Haven well has been taken off line, water from the Portsmouth City system is being used to supplement the supply at the Tradeport.

Why is DHHS testing people, and what are they testing for?

At the request of community members, DHHS is testing anybody who may have consumed the contaminated water at the Tradeport and wants to know the level of PFCs in their blood. DHHS cannot tell any participant what these blood levels mean for their health. It is unclear what detection of any of these chemicals means for a person’s health, and the levels found in blood do not predict what, if any, health impact might occur. The results can only be compared to results found through other U.S. testing programs.

Why am I being offered the results of nine different PFCs instead of just PFOS and PFOA?

The first batch of blood samples that participants submitted for PFC testing was analyzed by the Centers for Disease Control and Prevention (CDC) laboratory. The CDC tested the samples for the two requested PFCs, perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA), in addition to seven other PFCs that are often found in people’s blood. As with PFOS and PFOA, it is unclear what detection of any of these chemicals means for a person’s health, and the levels found in blood do not predict what, if any, health impact might occur. Having all nine PFC blood test results will help persons interested in knowing how they compare to the general U.S. population, as reported in CDC’s National Health and Nutrition Examination Survey (NHANES), or populations from other testing programs. If individuals do not want to know all nine results, DHHS can still provide individuals with the results for just PFOS and PFOA. The PFCs tested by CDC are listed in the table below:

PFCs Tested	Abbreviations
perfluorooctane sulfonamide	PFOSA
2-(N-ethyl-perfluorooctane sulfonamido) acetic acid	Et-PFOSA-AcOH
2-(N-methyl-perfluorooctane sulfonamido) acetic acid	Me-PFOSA-AcOH
perfluorohexane sulfonic acid	PFHxS
perfluorooctane sulfonic acid	PFOS
perfluorooctanoic acid	PFOA
perfluorononanoic acid	PFNA
perfluorodecanoic acid	PFDeA
perfluoroundecanoic acid	PFUA

Will results be publically released?

A summary report of the results of the DHHS testing program will be released once all sample results are received from the laboratory. No person's name or other identifiable information will be included in the report. This is to respect everyone's privacy, and is in accordance with the national Health Information Privacy and Accountability Act.

What does it mean if the levels of PFCs found in my blood are higher than those of others in the community or in the country?

It is unknown what a high level of PFOA or PFOS means for a person's health. Studies of workers exposed to these chemicals have shown blood levels significantly higher than what is found in the general U.S. population, sometimes hundreds or thousands of parts per billion, and yet no consistent health effects have been found.

The DHHS testing program is not able to determine where someone was exposed to PFCs, since they are widely found in the environment and remain in a person's body for many years. If high levels are found, they are not necessarily or exclusively related to drinking contaminated water at the Tradeport.

Who can I call to talk to if I have health concerns?

DHHS is working with the Northern New England Poison Center (NNEPC) to set up an inquiry line to answer any questions individuals have about PFCs once they have received their test results. Individuals with specific concerns about their health should discuss them with their primary care provider. DHHS is providing educational materials about PFCs to primary care providers so they can address possible health concerns.

If an individual continues to have concerns about their health, their primary care provider may be able to refer the individual to a Boston-area environmental health medical group that specializes in environmental health concerns. These clinicians, however, will not be able to tell an individual what their level means for their health.

What should I do if my child's blood has PFCs in it?

If you are concerned about your child's health, you should talk to your child's primary care provider. Because PFCs are everywhere in our natural and home environments, it is expected that children will have detectable levels. There are no definite health effects that have been identified in children related to PFC exposure. There is also no way to medically remove PFCs from a person's body. If levels are elevated, parents may consider reducing PFC exposure as discussed below.

Are PFCs passed to a baby through breast milk?

PFCs can be passed from mother to child through breast milk, but PFCs are not thought to build up in breast milk, and a child can be potentially exposed to PFCs from many other sources in the home. It is important to remember that there are no clearly defined health risks to you or your child from PFC exposure.

Is a child more at risk from breastfeeding or bottle feeding?

Because there are no clear health effects from PFCs, the decision to breastfeed or bottle feed should not be based on a concern for PFC exposure. The benefits of breastfeeding are expected to outweigh any possible health effects from PFCs that may be in breast milk.

How long does it take these chemicals to break down in the body? Is there anything I can do to speed up this process?

It takes about four years for the PFOA and five years for the PFOS in your body to decrease by half if there is no additional exposure to the chemicals.

There is no way to medically remove the chemicals from a person's body, and there is nothing an individual can do to speed up the time it takes for the body to naturally remove PFCs.

If I have elevated blood levels of PFCs should I be retested in the future? If so, when?

Any elevated levels caused by the Haven well will decrease slowly over time, and any further exposure would be from other environmental sources. Because there is no treatment for elevated levels and no way to remove them faster, further testing would not provide any health benefits.

Will DHHS test again to determine if participants' levels change over time?

DHHS has no plans to conduct repeat testing in the future. Future testing would need to be several years after the initial test because of the long time that PFOA and PFOS remain in the body, and there is no medical reason to retest.

Are there any medical tests I need to have performed by my primary care provider now that I know I have PFCs in my body?

There are no specific tests that are medically necessary. Any decisions on further testing or follow-up evaluation should be made with your healthcare provider. DHHS will provide education and recommendations to healthcare providers in New Hampshire so they can have an informed discussion with patients about the significance of finding PFCs in a person's blood.

DHHS is recommending that all healthcare providers follow their patients and perform any routine diagnostic or screening tests as medically indicated, based on their history, physical examination, and assessment, and not based on PFC levels.

Is there going to be research to determine if the Haven well PFCs caused harm?

Many larger studies with higher exposure levels to PFCs have attempted to evaluate whether these chemicals can cause harm to humans, and these studies have been unable to definitively provide answers. DHHS will review all the results once testing is complete and discuss the results with the community advisory board and the Centers for Disease Control and Prevention, Agency for Toxic Substances and Disease Registry (CDC/ATSDR). At that time, DHHS will make a determination about whether further evaluation is needed.

Who is responsible for monitoring my health if I have high levels of PFCs?

Your primary care provider can address concerns you have about your health, while DHHS is working with the Air Force and federal agencies to take reasonable measures to address contaminants at the Tradeport.

How can I reduce my exposure to PFCs?

There will be a forthcoming document, “Reducing Exposure to PFCs” outlining more detailed recommendations about how to reduce exposure to PFCs.

Who can I call to talk to if I have health concerns?

The New Hampshire Department of Health and Human Services has established a public inquiry line. Please call 603-271-9461 Monday–Friday 8:00 am–4:00 pm if you have additional questions about the testing program.



Nicholas A. Toumpas
Commissioner

Marcella Jordan Bobinsky
Acting Director

STATE OF NEW HAMPSHIRE
DEPARTMENT OF HEALTH AND HUMAN SERVICES

29 HAZEN DRIVE, CONCORD, NH 03301-6503
603-271-4612 1-800-852-3345 Ext. 4612
Fax: 603-271-4827 TDD Access: 1-800-735-2964

Appendix I



June 1, 2015

«chrFirstName» «chrLastName»
«chrAddress»
«chrCity», «chrState» «chrZip»

Dear «chrFirstName»,

Thank you for your prompt return of the Pease Tradeport Blood Testing Program Participant Questionnaire and Consent form for all family members interested in being tested for PFC levels.

Enclosed are lab requisition forms and corresponding tube labels for all family members who gave consent to be tested; please complete the Participant Information section of the Requisition Form. Adults can present the form, labels and the Specimen Collection Protocol to Occupational Health Services of Portsmouth Regional Hospital, 26 Manchester Square at the Tradeport, Monday through Friday, 7 a.m. To 1:00 p.m. and have your blood drawn. Please arrive no later than 1:00 p.m. for the blood draw and complete the blood draw within two weeks from the date of this letter.

For children requiring blood draws, please complete the Participant Information section of the Pediatric Requisition Form and present the form, labels and the Specimen Collection Protocol at the Jackson Gray Medical Building, 330 Borthwick Avenue, 1st Floor Suite 112, Portsmouth, Monday through Friday, 7 a.m. to 1:00 p.m. to have their blood drawn. Please arrive no later than 1:00 p.m. and complete the blood draw within two weeks from the date of this letter.

There is no fasting requirement for this blood test. Please note that blood draws will not be available after June 12, 2015 in order to assure timely reporting of results to participants.

If you have any questions please call the NH Department of Health and Human Services, Public Inquiry Line at 603-271-9461.

Sincerely,

Benjamin P. Chan, MD, MPH
State Epidemiologist

Enclosures

New Hampshire PFC Testing Program
Specimen Collection Protocol

Blood serum is being collected from Pease Tradeport workers, daycare attendees and local residents who drank drinking water contaminated with PFCs (perfluorochemicals). Specimens will be tested for PFCs, including PFOS (perfluorooctane sulfonic acid) and PFOA (perfluorooctanic acid).

- Please confirm that the patient is presenting to have a blood drawn associated with the New Hampshire PFC Blood Testing Program.
- Each participant will have a test specific requisition, complete with participant number and extra labels for use on the specimen and sample manifest.
- Confirm the participant's name and date of birth.
- Collect 1 tube of blood in either a yellow or tiger top tube.
- Affix the participant label to the blood tube with the date, time and phlebotomist initials written on it. Ensure that the labels on the tube and the requisition slip match.
- Allow the specimen to clot at room temperature for 20 minutes
- Centrifuge the specimen per the Portsmouth Hospital protocol, Do not decant the serum.
- Place in test tube in a rack and refrigerate.
- Contact the NH PHL at 603.271. 4661 to arrange for a courier.
- Complete the sample manifest/chain of custody.
- Please do NOT copy the specimen requisitions or sample manifest. Return all paperwork, including any unused labels with the participant specimen.

Thank you for your assistance with this project.



Nicholas A. Toumpas
Commissioner

Marcella Jordan Bobinsky
Acting Director

STATE OF NEW HAMPSHIRE
DEPARTMENT OF HEALTH AND HUMAN
SERVICES

29 HAZEN DRIVE, CONCORD, NH 03301-6503
603-271-4612 1-800-852-3345 Ext. 4612
Fax: 603-271-4827 TDD Access: 1-800-735-2964

Appendix K



(Date)

[Participant Name]
[Participant Street Address]
[Participant City, State, Zip code]

Dear [Participant name],

You recently participated in a clinical testing program for perfluorochemicals (PFCs), including perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA), coordinated by the NH Department of Health and Human Services.

The results of this testing effort are complete, and a summary of your results along with additional information about these chemicals are enclosed.

A report summarizing the overall results of this public service testing program may be found at <http://www.dhhs.nh.gov/dphs/investigation-pease.htm>.

Your results can be compared with results from a study of the general U.S. population. http://www.cdc.gov/exposurereport/pdf/fourthreport_updatedtables_aug2014.pdf

If you have any questions, please feel free to contact the Division of Health and Human Services Public Inquiry Line at 603-271-9461, or your primary care provider.

Sincerely,

Benjamin P. Chan, MD, MPH
State Epidemiologist

Participant Name: _____

Participant Identification Number _____

Your PFOS and PFOA Blood Test Results

We tested your blood for 2 perfluorochemicals (PFCs), perfluorooctane sulfonic acid (PFOS) and perfluorooctanoic acid (PFOA). PFCs are used to make various products resistant to oil, stains, grease and water. They were used in firefighting foam at the former Pease Air Force Base which contaminated the ground water.

What were the levels of PFOS and PFOA in my blood?

The level of PFOS found in your blood was _____ $\mu\text{g/L}$

The level of PFOA found in your blood was _____ $\mu\text{g/L}$

What can I compare my levels to?

The table below compares your levels to the most recent national levels for samples collected in 2009-2010. The following are definitions for some of the numbers you will see your levels compared to:

- Range – The lowest and highest levels seen in the U.S. population.
- Geometric Mean—A type of average calculated for the U.S. population.
- 95th Percentile- The level at which 95% of adults in the U.S. tested at or below this value.

The national range, geometric mean and 95% percentile do not provide information about what might be a level of health concern. They are simply a way for you to compare your results with others. There are no blood levels for PFOA and PFOS that have been established as a health concern.

Table of Your PFOS and PFOA Blood Test Results

PFC Tested ($\mu\text{g/L}$)*	Your Level ($\mu\text{g/L}$)	Levels in the U.S. Population		
		Range	Geometric Mean	95 th Percentile
PFOS Perfluorooctane sulfonic acid	6.9		9.32	32.0
PFOA Perfluorooctanoic acid	2.9		3.07	7.5

No health level of concern has been established for either PFOS or PFOA in blood.

($\mu\text{g/L}$) = micrograms per liter

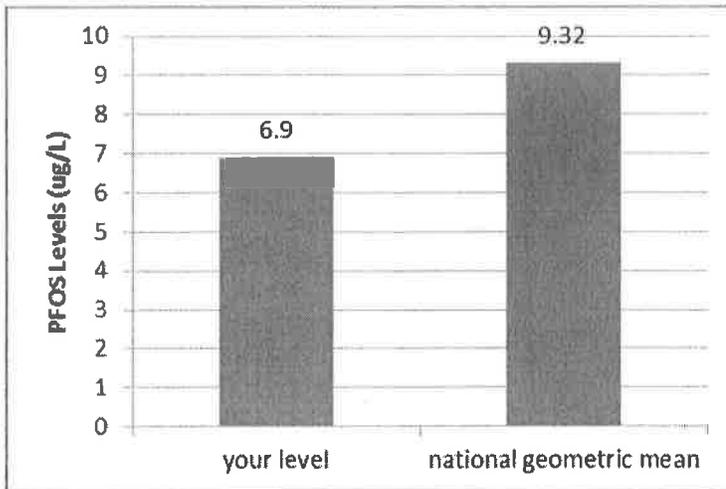
LOD = limit of detection

*4th National Report on Human Exposure to Environmental Chemicals, Updated Tables (February, 2015) for specimens collected 2009-2010.

Samples were analyzed at the National Center for Environmental Health, US Centers for Disease Control and Prevention, Chamblee, GA. CLIA # _____

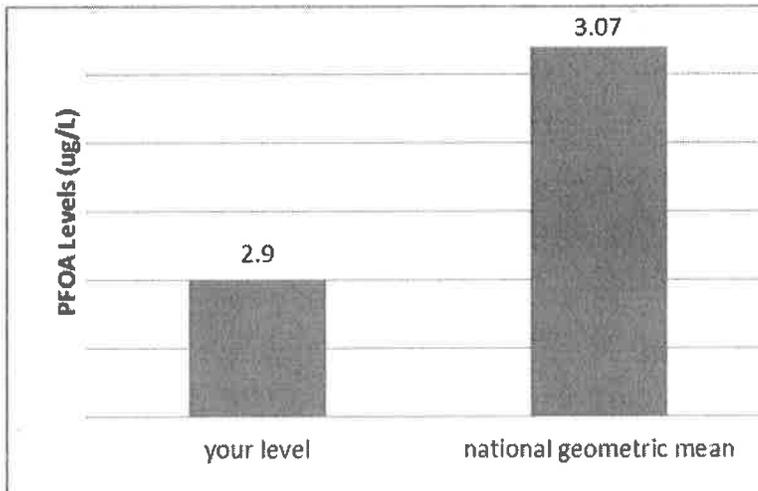
Graphs of your PFOS and PFOA Results

Your PFOS level compared to the national geometric mean



A health level of concern has not been established for PFOS in blood.

Your PFOA level compared to the national geometric mean



A health level of concern has not been established for PFOA in blood.



Nicholas A. Toumpas
Commissioner

Marcella Jordan Bobinsky
Acting Director

STATE OF NEW HAMPSHIRE
DEPARTMENT OF HEALTH AND HUMAN
SERVICES

29 HAZEN DRIVE, CONCORD, NH 03301-6503
603-271-4612 1-800-852-3345 Ext. 4612
Fax: 603-271-4827 TDD Access: 1-800-735-2964

Appendix L



(Date)

[Parent Name]
[Participant Street Address]
[Participant City, State, Zip code]

Dear [Parent Name],

Your child, [Participant name], recently participated in a clinical testing program for perfluorochemicals (PFCs), including perfluorooctane sulfonate (PFOS) and perfluorooctanoic acid (PFOA), coordinated by the NH Department of Health and Human Services.

The results of this testing effort are complete, and a summary of your child's results along with additional information about these chemicals are enclosed.

A report summarizing the overall results of this public service testing program may be found at <http://http://www.dhhs.nh.gov/dphs/investigation-pease.htm>.

If you have any questions, please feel free to contact the Division of Health and Human Services Public Inquiry Line at 603-271-9461, or your primary care provider.

Sincerely,

Benjamin P. Chan, MD, MPH
State Epidemiologist

Participant Name: _____

Participant Identification Number _____

Your Child's PFOS and PFOA Blood Test Results

Your child's blood was tested for two perfluorochemicals (PFCs), perfluooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS). PFCs were used in a variety of products to make them resistant to oil, stains, grease and water. They were also used in firefighting foam at the former Pease Air Force Base which contaminated the ground water.

What were the levels of PFOS and PFOA in my child's blood?

The level of PFOS found in your child's blood was _____ $\mu\text{g/L}$

The level of PFOA found in your child's blood was _____ $\mu\text{g/L}$

What can I compare my child's levels to?

There are few studies that measure PFCs in children's blood serum. One recent study of 300 Texas children aged 0-12 years, with no known PFC exposure showed:

- % > LOD- the percentage of children that had detectable levels of PFOS or PFOA in their blood
- Median – the middle value when all children's results were listed from lowest to highest
- Maximum – the greatest level measured in the study

No health levels of concern have been established for PFOS or PFOA in blood.

Table of Your Child's PFOS and PFOA Blood Test Results

PFC Tested	Your Child's Result (µg/L)	Levels in the Schecter Study (µg/L)*		
		% > LOD	Median	Maximum Boys Maximum Girls
PFOS				93.30
Perfluorooctane sulfonic acid	6.9	96	4.10	38.30
PFOA				13.50
Perfluooctanoic acid	2.9	98	2.85	9.60

No health levels of concern have been established for PFOS or PFOA in blood.

(µg/L) = micrograms/L

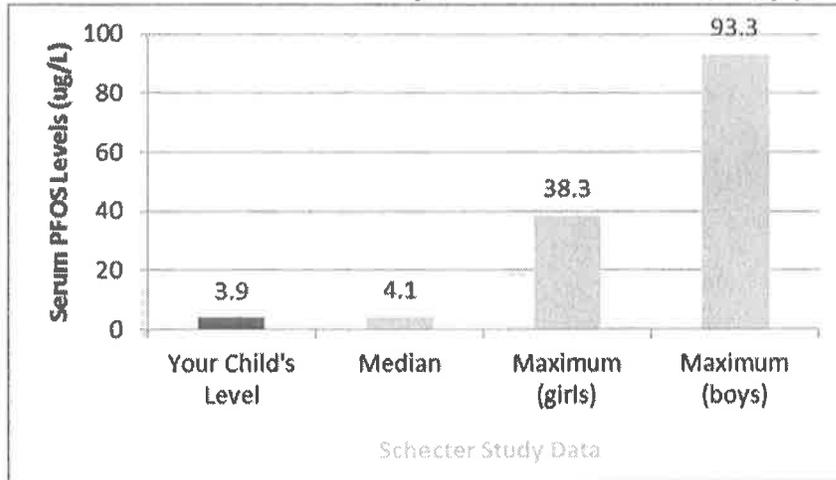
LOD = limit of detection

*Schecter, A, Malik-Bass, N., Calafat A.M., Kato, K., Colacino, J.A., Gent, T.L., Hynan, L.S., Harris, T.R., Malla, S., and L. Birnbaum, *Polyfluoroalkyl Compounds in Texas Children from Birth through 12 Years of Age*, *Enviro Health Perspect*, 2012Apr.,120(4) 590-594

Samples were analyzed at _____ CLIA # _____

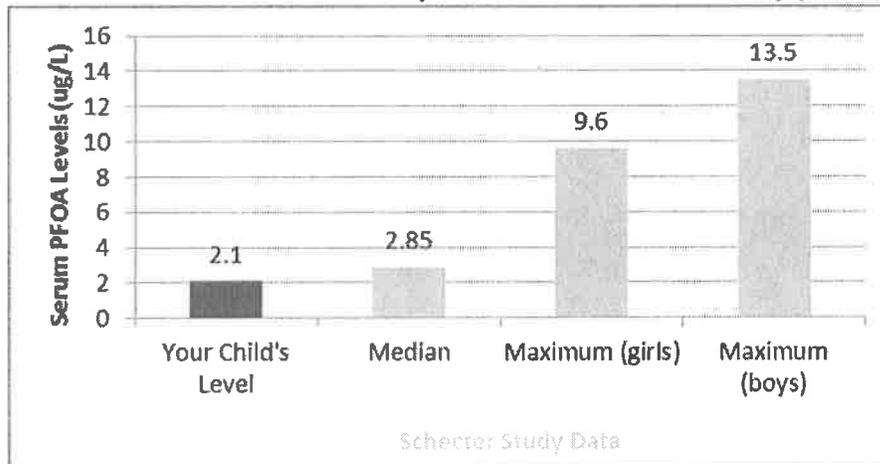
Graphs of Your Child's PFOA and PFOS Results

Your Child's PFOS Results Compared to the Schechter Study (2012)



A health level of concern has not been established for PFOS in blood.

Your Child's PFOA Results Compared to the Schechter Study (2012)



A health level of concern has not been established for PFOA in blood.



Nicholas A. Toumpas
Commissioner

Marcella Jordan Bobinsky
Acting Director

STATE OF NEW HAMPSHIRE

DEPARTMENT OF HEALTH AND HUMAN SERVICES

29 HAZEN DRIVE, CONCORD, NH 03301-6503
603-271-4612 1-800-852-3345 Ext. 4612
Fax: 603-271-4827 TDD Access: 1-800-735-2964

Appendix M



June 1, 2015

[Participant Name]
[Participant Street Address]
[Participant City, State, Zip code]

Dear Participant,

Thank you for taking the time to call the NH Department of Health and Human Services (DHHS) regarding our Perfluorochemicals (PFCs) Testing Program.

This is to confirm that you and/or your child(ren) were eligible to participate in this assessment; however you have declined participation for yourself and/or on behalf of your child(ren). A note to this effect will be placed in our records and no future contact will be made regarding this testing program.

If you decide that you and/or your child(ren) would like to participate in this assessment please call 603-271-9461 by May 29, 2015.

Sincerely,

Benjamin P. Chan, MD, MPH
State Epidemiologist



STATE OF NEW HAMPSHIRE
DEPARTMENT OF HEALTH AND HUMAN SERVICES
OFFICE OF THE COMMISSIONER
OFFICE OF EMERGENCY SERVICES

Nicholas A. Toumpas
Commissioner

Rick Cricenti
Director

129 PLEASANT STREET, CONCORD, NH 03301-3857
603-271-9448 1-800-852-3345 Ext. 9448
Fax: 603-271-3001 TDD Access: 1-800-735-2964 www.dhhs.nh.gov

June 1, 2015

[Participant Name]
[Participant Street Address]
[Participant City, State, Zip code]

Dear Participant,

Thank you for taking the time to call the NH Department of Health and Human Services (DHHS) regarding our Perfluorochemicals (PFCs) Testing Program.

This is to confirm that you and/or your child(ren) did not meet the current criteria to participate in this testing program at this time. A note to this effect will be placed in our records and should the criteria for this testing program change you may receive a call from this office.

If you have any additional questions regarding this assessment please call 603-271-9461.

Sincerely,

Benjamin P. Chan, MD, MPH
State Epidemiologist