



VERMONT

DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
AGENCY OF AGRICULTURE, FOOD & MARKETS  
DEPARTMENT OF HEALTH

March 25, 2016

## **Summary for Legislators: PFOA Contamination in North Bennington**

The Vermont Department of Environmental Conservation, Department of Health, and Agency of Agriculture, Food & Markets have been working together to address the health, safety, and environmental concerns resulting from the detection of PFOA in private drinking water wells in North Bennington, Vermont.

### **Background**

After hearing news about contaminated drinking water surrounding a Chemfab plant in Hoosick Falls, New York, a private citizen contacted local legislators in early February 2016 with concerns about another former Chemfab plant in North Bennington. Legislators reached out to the Vermont Department of Environmental Conservation (DEC), which promptly sampled five private drinking water wells and the North Bennington municipal water supply for perfluorinated compounds and volatile organic compounds. The five wells tested showed the presence of perfluorooctanic acid (PFOA) at concentrations above the Vermont Department of Health's drinking water health advisory level of 20 parts per trillion (ppt). Volatile organic contaminants were not detected in any of the samples.

The public drinking water supplies in North Bennington and Bennington have been tested and are not affected.

### **What is PFOA?**

PFOA is a manufactured chemical used to make household and commercial products that repel water, oil, stains and grease. It is widely found in nonstick cookware, stain-resistant carpets and fabrics, water repellent clothing, paper and cardboard food packaging, and fire-fighting foam. It is used in the production of Teflon. Teflon-coated products may contain PFOA left over from the production process.

### **Why is PFOA contamination a health concern?**

PFOA persists for a long time in the environment, particularly in water. Studies have shown a correlation – but not a proven cause-and-effect relationship – between levels of PFOA in the blood and high cholesterol, increased uric acid, changes in liver enzymes, pregnancy induced hypertension, low birth weight, some immune system effects, thyroid disease, kidney cancer and testicular cancer.

The Health Department has produced a fact sheet with health-related information and guidance, available at:

[http://healthvermont.gov/enviro/pfoa/PFOA\\_health\\_facts.pdf](http://healthvermont.gov/enviro/pfoa/PFOA_health_facts.pdf)

### **Does EPA monitor PFOA?**

Routinely, the Environmental Protection Agency (EPA) samples municipal wells across the United States for emerging chemicals of concern as part of an effort to determine if new chemicals should be added to the list of contaminants monitored by all public water systems. In Vermont, 10 municipal supplies were sampled for PFOA and other emerging chemical by the EPA between 2013-2015. PFOA was not detected in any of the municipal water wells: Bennington, Barre City, Brattleboro, Burlington, Jay Peak Basin Complex, Lyndonville, Rutland City, Shaftsbury, South Burlington and Winhall Stratton Fire District 1.

The complete list of monitored emerging chemicals (called the “Contaminant Candidate List” or “CCL”) can be [viewed at EPA’s CCL-3 webpage](#).

### **Brief History of the Plant**

Chemfab operated in North Bennington from 1970 through 2000, when it was purchased by Saint-Gobain, and continued operating for two more years. The plant closed in 2002. During its operation, the facility primarily applied PTFE (Teflon) coatings to fiberglass fabrics by dip coating the fabrics in a liquid bath of micron-sized PTFE particles with various additives (likely including PFOA). The Teflon was then melted on to the fabrics and dried in on-site ovens. DEC received more than 30 air complaints during the years that the facility operated in North Bennington. Three enforcement actions were brought against the company. Ultimately, Chemfab was purchased by Saint-Gobain and moved to New Hampshire. A 2002 Bennington Banner article noted that the company moved because of pressure from the State of Vermont to include air pollution control equipment that was not required in New Hampshire.

### **Water and Soil Sampling**

After receiving the initial well water results, DEC committed to testing all private water wells within a 1.5-mile radius of the former Chemfab facility. This sampling plan addressed the uncertainty surrounding the transportation mechanism of PFOA, accounting for possible distribution by air, surface water and/or groundwater.

#### *Well Water Sampling*

DEC Waste Management and Prevention Division teams went door to door collecting drinking water samples for over two weeks. The final round of well sample results was received on Sunday, March 20, completing the initial recommended drinking water investigation within a 1.5-mile radius of the former Chemfab plant. In total, approximately 185 water samples have been taken to date. Of the wells sampled, 104 were above the Health Department’s level of 20 ppt, 11 were less than 20 ppt, and 63 wells did not have detections of PFOA. The results generally show levels of PFOA closest to the former Chemfab plant. The 1.5-mile radius has now been expanded in three areas (map: <http://www.anr.state.vt.us/dec/PFOA.htm>). Additional testing of the North Bennington public water system, including samples from the elementary school, have confirmed no PFOA contamination.

#### *North Bennington Soil Sampling*

DEC has approved a soil sampling screening plan proposed by Saint-Gobain’s contractor. This sampling effort is being performed to identify if any further soil sampling is needed around the former plant. The sampling plan includes more than 100 samples at over 25 locations. Results will be available in the coming weeks.

Soil samples were collected in eight different directions from the former Chemfab plant at varying distances to attempt to determine if soil contamination exists around the former plant and at locations where if there is any soil contamination it would be expected to be at its highest concentrations at these locations. If the results are positive for PFOA, DEC will expand to individual residences. We have recently learned that soil sampling at the Hoosick Falls site in New York found very little PFOA contamination to the soils.

#### *Second Site: Northside Drive, Bennington*

The former Chemfab facility had its original location in Bennington on Northside Drive. The overwhelming majority of individuals in this area are on municipal water, which has been tested and is not impacted by PFOA. DEC took a water sample from one private well on Northside Drive. Results show levels of PFOA above 20 ppt. The family has been alerted and bottled water is being delivered. A municipal hook up is available at this site. DEC is working with Bennington officials to review well data to determine if there is any other well sampling that needs to be done in the immediate area in the immediate future.

### *Pownal Water Sampling – Initial Results*

On March 16, EPA Contractor Weston Solutions collected three water samples from the Pownal Fire District #2 system, which is located 1,000 feet from the former Warren Wire Plant #1. A water sample was collected from the supply well and two samples were collected from homes along the distribution line. Test results received on March 24 showed levels of PFOA between 26 and 27 ppt, slightly above the Health Department's advisory level of 20 ppt. This municipal water system serves approximately 450 residents. A public meeting for Pownal residents is set for Monday, March 28 at 6 pm in the American Legion Hall. DEC and Health Dept. officials will be on hand to answer questions.

### **Health Guidance**

There is no EPA-established regulatory level for PFOA in drinking water. States can determine levels for drinking water, and have either looked to EPA for guidance and/or have calculated their own. The Vermont Department of Health has recommended a level of 20 parts per trillion, taking into account a child's risk from exposure to PFOA. This is lower than the levels being used in New York (100 ppt) and New Hampshire (400 ppt).

### *Communication with Health Care Providers*

The Health Department has provided medical recommendations in a health advisory to health care providers in Bennington and Rutland counties who may have patients with PFOA-contaminated or potentially contaminated water. The recommendations are based on review of scientific studies and consultation with national experts and local physicians. The health advisory is posted on the Health Department's website: [http://healthvermont.gov/advisory/2016/documents/20160303\\_pfoa\\_nbennington.pdf](http://healthvermont.gov/advisory/2016/documents/20160303_pfoa_nbennington.pdf)

### *No Increase in Cancer Rates*

Health Department cancer registry data analysts have looked at cancer rates for the two cancers that have been linked with PFOA exposure to compare the North Bennington area with the rest of the state. Kidney cancer incidence rates among residents of Bennington City – West (including North Bennington) are not statistically different from the rest of Vermont. Testicular cancer incidence rates could not be calculated as there were fewer than six cases over the time period studied (10 years).

### **Blood Testing for PFOA**

People who may have been exposed to PFOA due to drinking water contamination or having worked at Chemfab want to know if they have higher than average levels of PFOA in their blood. The Health Department is working in partnership with Southwestern Vermont Medical Center to hold blood draw clinics for individuals who are eligible. (Eligibility criteria, dates and details of the blood draw clinics will be determined and announced in the next few days.) The Health Department has asked the Centers for Disease Control & Prevention/ National Center for Environmental Health to assist Vermont with laboratory analyses for PFOA in blood, and they have agreed to perform these analyses for at least 300 individuals. The Health Department is also working to locate other laboratories that can analyze blood for PFOA.

*What blood test results will tell, and not tell* – Blood tests for PFOA will tell if a person has more PFOA in their blood than the average American. Unfortunately, the results are unlikely to give health care providers information that can be used for specific treatments. If an individual has been drinking water contaminated with high levels of PFOA, blood test results will almost certainly show levels of PFOA higher than the average American. However, there is no way to predict whether higher levels of PFOA in the blood will affect the health of an individual. It takes two to four years for PFOA in blood to be reduced by half. There is no medical intervention that can remove PFOA from blood.

### **Notifying Affected Residents**

DEC continues to notify residents of water test results on an ongoing basis and is coordinating the installation of water treatment systems. The Health Department is also reaching out by phone to residents with private drinking water wells who have just received test results, regardless of the level of PFOA in their water.

### **Bottled Water & Treatment Systems**

Bottled water remains available at the North Bennington Village Variety Store, located at 9 Route 67 West, and is being delivered to impacted homes. Two water tanks from which residents can draw water are located in the parking lot across from the former Chemfab plant located at the intersection of Water Street and Route 67a. Point of Entry Treatment (POET) systems are being offered to impacted residents through Saint-Gobain's contractor, Culligan Water Technologies. Culligan has installed 20 systems so far and is scheduling the remaining 84 installations with impacted homeowners.

### **Questions about Agricultural Products and Testing**

There are no established regulatory levels for PFOA in agricultural commodities. Agency staff are reviewing the scientific literature on PFOA in agricultural commodities and are also reaching out to federal experts and other states that have been impacted. Based on initial reviews, staff provided a FAQ sheet, which describes the Agency's current knowledge and is being used to respond to both agricultural producers and homeowners in the affected areas.

Agency of Agriculture laboratory staff have converted analytical instrumentation to test maple syrup for PFOA. Test method development is currently underway, and maple syrup samples have been collected with the assistance of other responding state agencies. Additional sample sites for maple syrup are also being assessed to collect control ("background") samples. The New York State Department of Agriculture and Markets Food Laboratory is working in collaboration with our laboratory to ensure consistent methodologies.

### **Saint-Gobain Response**

Representatives from Saint-Gobain continue to be responsive and cooperative. The company has agreed to pay for the following: drinking water, soil, surface water and sediment sampling; bottled water for impacted residents within a 1.5-mile radius of the former Chemfab site; installation and maintenance of POET systems for impacted residents within the 1.5-mile radius; and engineering services to evaluate the possibility of connecting private well owners to the municipal water system. In addition, Saint-Gobain has agreed to conduct a site investigation of the former Chemfab site and clean up any releases of PFOA from the site.

### **Governor Shumlin Visits North Bennington**

Governor Shumlin visited North Bennington on March 8 to visit with impacted residents and town officials, and to tour the impacted area. He also held a community meeting to discuss the issue. In a letter to the federal Environmental Protection Agency dated March 10, Governor Shumlin, New York Governor Cuomo and New Hampshire Governor Hassan officially requested that the EPA use the best available science to re-examine its guidelines on PFOA contamination and recommendations for assessing drinking water safety. Additionally, the governors called for adequate funding for the Drinking Water State Revolving Fund and its companion, the Clean Water Revolving Fund, to address much-needed improvements in our water infrastructure.

The Governor returned to the area on March 16 to host a community meeting at Bennington College. The Governor, DEC, Health Department, and Agency of Agriculture officials announced the expansion of the water sampling area, signed people up to have their wells tested and to answered questions for more than two hours.

## **Media Updates**

With input from DEC and the Health Department, the Governor's office has been releasing regular updates on sampling results and available resources for North Bennington residents. These press releases are available online: <http://www.anr.state.vt.us/dec/PFOA.htm>

## **Public Information Sources**

### *Information Lines*

DEC is operating a PFOA hotline (828-1038) from 8 am to 4:30 pm daily to take calls from the public and coordinate with contractors and field teams. Residents with health-related questions can call the Health Department at 1-800-439-8550 from 7:45 am to 4:30 pm.

### *Information Center*

An information center has been set up at the Health Department district office located at 324 Main Street in Bennington, and is currently open from 8am – 6pm Monday to Friday. Officials from DEC and Health are on hand to answer follow up questions from residents.

### *Websites*

DEC is regularly posting and updating public information on its dedicated webpage:  
<http://www.anr.state.vt.us/dec/PFOA.htm>

The Health Department posts and updates health-related information for the public and for health care providers on its website at: <http://healthvermont.gov/enviro/pfoa.aspx> – or go to [healthvermont.gov](http://healthvermont.gov) and find PFOA Contamination link at the top of the homepage.