

Introduction

The New York State Department of Health and the Village of Hoosick Falls, New York, discovered while conducting tests, that groundwater and drinking water in the Village of Hoosick Falls is contaminated with perfluorooctanoic acid (PFOA).

PFOA is from a group of chemicals used to make household and commercial products that resist: ⁽⁸⁾

- heat
- chemical reactions
- repel oil, stains, grease and water

PFOA is widely found in: ⁽⁸⁾

- non-stick pots & pans
- carpets
- fire-fighting foam



Impact on the Human Health

PFOAS can affect the human health in multiple negative ways: ⁽¹⁾

- Increased cholesterol
- Decreased vaccine response in children
- Changes in liver enzymes
- Increased risk of high blood pressure and pre-eclampsia in pregnant women, also small decreases in infant birth weights.
- Increased risks of kidney and testicular cancer

PFAS can enter the environment through production or waste streams and are very tenacious in the environment and the human body. Most affects found to affect humans were direct results of animal experiment, which showed the health affects of PFA's.

The risks present for the citizens of Hoosick Falls aren't immediate health problems, but long-term problems due to being exposed to the contaminant. They will need to do screenings in the following years to evaluate the health impact it had .

Settlement & Treatment Solution

The lawsuit alleges that Saint-Gobain and Honeywell are responsible for contaminating the aquifer beneath Hoosick Falls and they settled to pay \$65 million to solve the federal lawsuit. ⁽⁶⁾

It will help cover the cost of thousands of household monitoring and health treatment if needed. Under DEC oversight, Saint-Gobain installed a granular activated carbon (GAC) treatment system at the village water treatment plant to filter the PFOA's present and provided new groundwater sources. A filter with GAC can remove organic contaminants, especially PFAs, as well as chemicals that causes odors or tastes to water. It is a filter that proceeds with an absorption process, attractive forces caused by an organic carbon filtration media will filter the water after sedimentation and coagulation.

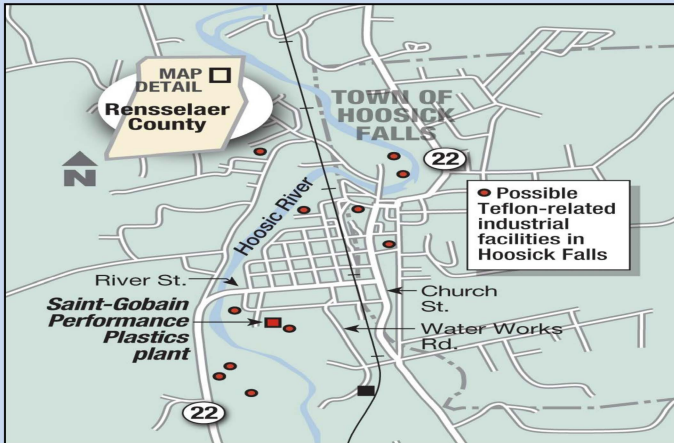


Figure 1- Hoosick Falls Teflon Facilities Locations

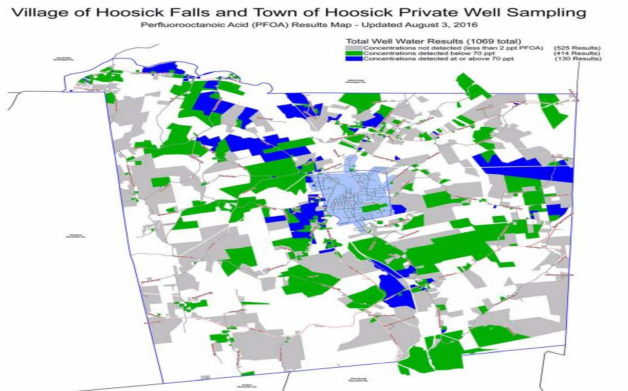


Figure 2- Private Wells Sampling Map

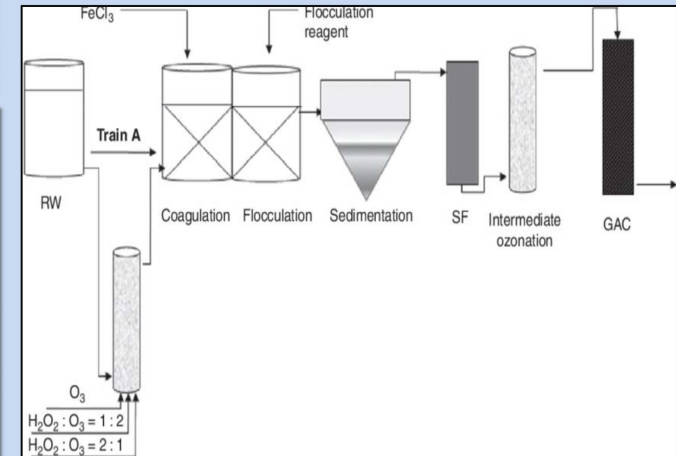


Figure 4- GAC Treatment System Diagram

Contamination

In 2009, the EPA established a provisional health suggested level of 400 ppt for short-term exposure to PFOA. It is advised to not drink or cook the water if containing more than 400 ppt.⁽⁸⁾

In June 2015, 4 out of 5 water samples collected from various locations from the public drinking water supply contained more than 600 ppt.⁽⁸⁾

Furthermore, some groundwater sampling at the Saint-Gobain Performance Plastics facility in town found some levels of around 18,000 ppt. Some private wells found some contaminants also but not anything above 400 ppt.⁽⁸⁾



Figure 3- GAC Treatment System Filter Components

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