Calgon Carbon Initiates Emergency Response to PFAS Detection

Blades, DE

PROJECT PROFILE

calgoncarbon.com
1.800.422.7266

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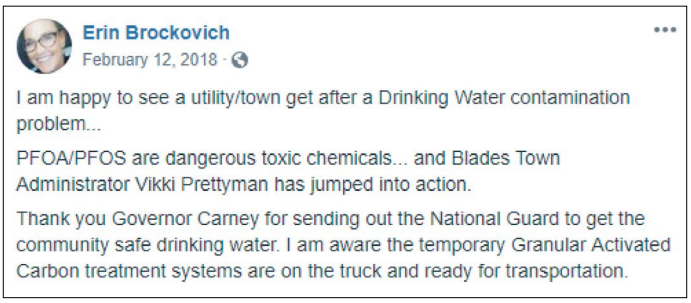
A Kuraray Company

Model 10 pressure vessel and 20,000 lbs of FILTRASORB 400 GAC dispatched in less than 2 weeks

Blades, Delaware, a small town in Sussex County, provides drinking water to more than 1,300 residential and business locations throughout the community. In 1981, the citizens of Blades voted to improve their water and sewage facilities by establishing a central water supply and tying all properties into the nearby Seaford Sewer Swystem. By February of 1982, the project was complete and since then the town has had a clean and safe municipal water supply.

However, that changed on February 8, 2018 - nearly 36 years later - when Per- and Polyfluoroalkyl Substances (PFAS), specifically PFOA and PFOS were detected in three public wells, impacting more than 1,250 residents and businesses.



Erin Brockovich, consumer advocate and environmental activist, compliments Blades, DE on its immediate response to detecting PFAS in the town's drinking water.

"We sampled our wells in coordination with the EPA, because of the town's proximity to potential sources of PFAS from historical industrial processes in the area," said Vikki Prettyman, Town Administrator for Blades. "We received the final results on February 8, 2018 and, out of an abundance of caution, began issuing bottled water to residents on February 9."

PFAS are man-made compounds that are not naturally found in the environment. For many years, PFAS were used in the manufacture of non-stick cookware, stain-resistant carpet, and in fire fighting foams. PFOA and PFOS fall under a Health Guidance issued by the U.S. EPA, which was announced in May of 2016. The Guidance of 70 parts per trillion (ppt) was set to give consumers a margin of protection from these potentially harmful contaminants. When all three wells contained PFAS exceeding levels of 70 ppt, the town of Blades immediately jumped into action, issuing a "Do Not Drink" notice to citizens and looking into treatment options.

> "The town of Blades was serious about finding a solution and we were poised to help them as quickly and efficiently as possible"
>
> **— Mike Donaway**

Nearby, the city of New Castle, DE was treating its drinking water with granular activated carbon (GAC) for the removal of PFOA and PFOS. After speaking with treatment plant operators from New Castle, Blades officials called Calgon Carbon for help. "Calgon Carbon has more than 15 years of experience in treating PFAS and I knew we could fix this problem," said Mike Donaway, regional sales manager at Calgon Carbon. "The town of Blades was serious about finding a solution and we were poised to help them as quickly and efficiently as possible."

PRODUCT SELECTION

Before installing, it was important to determine what kind of granular activated carbon would perform optimally with the source water used by Blades. Testing the water first, before selecting the carbon, is important in ensuring the best performance.

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>
> **— Vicki Prettyman**

FILTRASORB 400, Calgon Carbon's signature bituminous coal-based product, has a proven track record of removing PFAS compounds to non-detect levels and was the best option for the town. Coupled with a Model-10 pressure vessel, Blades was equipped to effectively treat 150 gallons of water per minute.

IMMEDIATE INSTALLATION

Just weeks after discovering the contamination the city ordered the new Model-10 vessel and FILTRASORB GAC. The Calgon Carbon team worked overtime to get the vessel and GAC prepared for shipping and installation, and within one day, the order was on its way to Blades. Twenty-four hours later it was installed, and finally, after connecting and testing the system, it was online and operational within a week.

About FILTRASORB

Developed for the removal of organic compounds from water, wastewater, and food processing streams, FILTRASORB is a highly active, reagglomerated, durable GAC. Made from select grades of bituminous coal, it is capable of withstanding the abrasion associated with repeated backwashing, hydraulic transport, and reactivation.

Used alone or in tandem with UV disinfection systems or ion exchange technology to help meet regulations and market demands by:

- Removing disinfection byproducts (DBPs), endocrine disrupting compounds (EDCs), emerging contaminants, and dissolved organic materials
- Acting as a dual-purpose media, providing both filtration and adsorption for treating surface water and groundwater sources in the production of drinking water
- Improving taste and odor

"The coordination on the Calgon Carbon team was unprecedented," said Prettyman. "Mike was willing to walk us through each step, determining what was best for our system and our community and they pulled together a vessel and 20K pounds of GAC in less than one week."

RESULTS

Initially, the system reduced the concentration of PFAS flowing through public pipes to 3.4 ppt (well under the EPA's Health Advisory Limit of 70 ppt), and a follow-up screening did not detect any contamination.

A little over a year later, Blades is preparing to purchase and install a back-up GAC system from Calgon Carbon to maintain compliance and have continuous filtration during GAC exchanges.

"We're very satisfied with Calgon Carbon's products and customer service," said Prettyman. "They went above and beyond and the results show it's working."

> **"We liked the carbon filtration system because it also removes other contaminants that may be regulated in the future."**
>
> **— Vicki Prettyman**

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