The Chemours Company
Fayetteville Works
22828 NC Highway 87 W
Fayetteville, NC 28306

Granular Activated Carbon (GAC) System
Questions and Answers and Installation Overview

What is Granular Activated Carbon (GAC) and how does it work?

GAC stands for granular activated carbon. The GAC filtration system uses the physical properties of natural carbon to remove a wide range of contaminants from drinking water, including HFPO-Dimer Acid (GenX) and similar polyfluorinated compounds (PFAS) by passing the water through filters containing GAC, which traps, or adsorbs, the chemicals. The Chemours GAC systems use a specific type of carbon (Calgon Filtrasorb F600) that has been approved by the NCDEQ for removal of Gen-X and associated compounds from all the water entering your home from your well.

How effective is GAC filtration?

GAC treatment has been utilized throughout the United States -- and is a proven technology—to treat PFAS compounds. Independent laboratory testing and pilot studies sponsored by Chemours have demonstrated the capability of this technology to reliably and consistently remove GenX and similar compounds to levels below detection when installed and maintained in continuous operation in accordance with Chemours' Implementation Plan. Test results and associated report filed with state and local officials show that, as a general matter, the level of removal provides an ample margin of safety below the state provisional health goal.

What are the GAC systems like?

The GAC Filtration units we are offering to homeowners whose drinking water has tested above the provisional state health goal connect to your primary water source and involve a no-bypass, three step water filtration process to remove contaminants. It includes an iron pre-filter that helps improve overall water quality and extends the life of the GAC cartridges, followed by a two-stage GAC filtration process that is designed to remove contaminants and prevent the accidental use of unfiltered drinking water. Chemours pays for installation and maintenance per the consent order agreement with the state of North Carolina and Cape Fear River Watch.

How big is a GAC system, what does it look like?

The GAC system is enclosed within a 6-foot by 8-foot shed. The system includes iron and sediment reduction pre-filters, two GAC vessels, or "tanks", multiple sampling points to check system performance, multiple gauges, water use meter, pressure booster pump, heater and approximately 40 - feet of piping. The shed is pre-built to meet current building codes, with reinforced walls, and low-maintenance aluminum roof and siding.

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Will I incur any costs?

Chemours offers these treatment systems to affected residents free-of-charge. Chemours will pay for the GAC units, their installation, testing and operating/maintenance costs, per the consent order agreement between Chemours, the State of North Carolina and Cape Fear River Watch.

Why do I have two GAC vessels in my GAC system?

The system was designed so that the first GAC vessel treats the water and the second vessel serves as a backup. Quarterly water samples will be collected from the first GAC vessel to confirm proper operation. The second GAC vessel is designed to capture Gen-X compounds when the first vessel is spent and is referred to as the "polishing" filter backup vessel. When sample results indicate the first vessel is spent, Chemours contractors will replace both vessels to ensure the highest quality of water. This GAC system design has been reviewed and approved by NCDEQ.

Why is there a heater in my GAC shed?

The heater is present to keep water from freezing during the coldest periods of the winter months. It has no moving parts or exposed heating elements and is set to keep the shed above freezing temperatures only. The heater will not constantly heat the shed, rather keep the temperature at 40°F only when needed. The sheds are constructed with insulated walls, roof and door to reduce the need for supplemental heat.

Will my water pressure be affected?

While water pressure and flow may be affected, the amount varies on a case-by-case basis. Almost all GAC systems will have a high-efficiency, electric booster pump installed to compensate for potential pressure/flow loss. The booster pump will be adjusted to return water pressure/flow to the measured values prior to GAC system installation. Chemours contractors will contact you after installation to see if the post-GAC water pressure is satisfactory and will adjust the GAC system as needed.

Who will be paying for the electricity for the GAC shed?

Electrical costs for the equipment mentioned above have been calculated by project electrical engineers to cost up to $25.00 per year. Each resident with a GAC unit will receive a $25.00 per year payment to cover additional electrical costs. NCDEQ has agreed to the $25 per year electrical reimbursement.

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How long will the installation of the GAC system take?

The GAC installation process will take approximately two weeks, but times may vary based upon weather conditions and coordination with the resident. The excavation work to make the electrical and plumbing connections is targeted to be completed in one week. Shallow trenches with electrical and/or plumbing lines may need to be kept open for a few weeks until the County Inspectors can schedule a visit to approve the permit. You will be receiving treated water during the period before the County can approve your permit. GAC installation time can be reduced if you authorize Chemours contractors to complete outside installation activities while you are not home.

Who will be installing the GAC system?

Local licensed plumbers and licensed electricians contracted through Chemours subcontractor Parsons will be conducting the installations. Parsons staff will always be on site to monitor construction work at all times.

How will I know when Parsons employees will be accessing my property?

A 24-hour courtesy call will be sent out stating the purpose and approximate time of the visit. GAC installation or service visits will be scheduled during normal business hours, Monday through Friday. The team will work to accommodate special scheduling requests such as evenings and weekend work.

Do I need to be home when my GAC system is being installed?

The resident needs to be home for the initial interview and to allow Chemours contractor staff to flush your water heater of sediments approximately one to two weeks after the GAC has been installed. Some residents chose to authorize Chemours contractors to access their property after the 24-hr telephone notification without them being present to reduce disruption and call-backs requesting approval for routine visits. If you would prefer to be onsite for all steps of the installation process and GAC maintenance visits, Chemours will meet your schedule and needs as best we can.

Will I still have water at faucets during installation?

Your home will briefly lose water for approximately two hours the day your GAC system is connected. You will lose water for approximately 30 minutes or less during sampling visits.

Why is my water heater being flushed?

The North Carolina Department of Environmental Quality (NCDEQ) requested that Chemours flush sediments from water heaters.

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Why does my existing whole house or undersink filter need to be removed or bypassed?

Existing whole house water filter filters need to be replaced after your GAC system has been installed to ensure that your old filters cannot release small amounts of Gen-X or PFAS compounds back into your treated water. If your existing whole house filters are not serviceable, the filter may be removed, replaced or bypassed by Chemours contractors.

Will my landscaping be affected by the installation?

During the installation process, trenches will be dug for plumbing and electrical lines that run from your home to the GAC system. Chemours contractors will conduct preliminary walk-throughs beforehand to prevent or reduce damage to landscape beds and plantings. Chemours contractors have a professional landscaping subcontractor available to ensure that your landscaping is returned to conditions prior to installation.

Why does Chemours require an access agreement?

An access agreement documents your permission/approval for Chemours contractors to access your property for GAC system installation and maintenance.

How will I know the system is working or when it needs to be serviced?

Along with the treatment system, Chemours is also offering to collect verification samples on a regular routine basis for independent laboratory analysis to confirm GenX removal and to determine the required timing of GAC cartridge replacement needed to maintain acceptable performance. Based on the results of our recent pilot studies we anticipate the frequency of verification sampling to be either bi-monthly or quarterly. These results will be reported to residents as it is received to give you confidence that your system is performing as expected. We will continue to provide you delivery of bottled drinking water free of charge until we have installed and verified system performance. Until we can implement whole-house treatment at your residence, please continue to refer to the Fact Sheet prepared by DHHS, which contains information about GenX and their guidelines for safe use of your water for non-drinking purposes.

What should I do if there's a problem with my GAC system?

For ***non-emergencies*** such as a decline in water pressure, questions about test results or other general inquiries please call: **910-678-1101.**
For ***Emergencies*** such as a loss of water flow or leaks from your GAC system, a 24-hour, staffed answering service has been established **(800-673-7096)** that will connect residents with a 24-hour, standby licensed plumber that can respond to emergency situations such as no water flow or visible leaks from a GAC system.

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How will I receive my sample results?

A copy of your sample results will be mailed directly to you by Chemours within seven days of receiving laboratory results. NCDEQ will mail you a copy of sample results for any samples NCDEQ collects. Sample results are typically provided by the laboratory 2-4 weeks after sample collection. Due to the number of samples being collected and the limited number of qualified laboratories, results can take longer.

Will I continue to receive bottled water?

You will continue to receive bottled water until test results confirm your GAC system is removing Gen-X and associated PFAS compounds.

If I do not want the GAC system, what are alternatives?

If you have 140 ppt or more of Gen-X in your well water supply, public water hook-up is an option in some instances, unless NCDEQ determines that connection to public water would be cost-prohibitive (in excess of $75,000) or unsafe. You may also elect Reverse Osmosis (RO) systems, which utilize a membrane with extremely small pores that only allow water molecules to pass. RO technology was developed by the United States Navy for purification of seawater and is widely used today. If you have 140 ppt or more of Gen-X in your well water supply, you qualify for a RO treated water fixture installed at every kitchen or bathroom sink as an alternative to a whole house GAC system. The RO system supplies drinking water to a small fixture dedicated to drinking water only, that will be installed at your interior kitchen and bathroom sinks but is not a whole house filter. The RO systems do not filter water supplied to your existing showers, spigots or sink fixtures. Please see the RO specific Q&A Fact Sheet for additional details.
RO Technology Overview YouTube link: https://www.youtube.com/watch?v=CMFnFIylJM0

Who will be installing the RO system?

Advanced Water Systems Group, an authorized installer of Kinetico RO equipment (AWS-Kinetico), will be installing NCDEQ - approved RO systems. Chemours contractor Parsons will be managing and monitoring the RO system installation work. When residents confirm they want RO systems with Chemours, their contact information is relayed to AWS. AWS will then contact you directly to set up an in-home visit and schedule the RO systems installation. Chemours contractor Parsons will be managing and monitoring the RO system installation work.
K5 RO System (YouTube link): https://www.youtube.com/watch?v=9XOLiHReHVs

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How long does it take to install the RO systems?

Installation of the RO systems will take less than one day. AWS-Kinetico will contact residents to schedule an in-home visit with a Kinetico professional to assess the locations where RO systems are to be installed. During this visit a work order will be generated and the installation team will follow up with the resident to schedule to RO installations.

How do I ask questions or express interest in having GAC or RO systems installed?

Please call our dedicated phone line at 910-678-1101 and provide your name and contact information. A member of our team will respond within two business days to set up an in-home visit where we can answer your questions and walk you through the process, and collect information on your well and installation preferences. We will respond to requests on a first come basis and will work diligently to promptly respond to your requests.
If you have GAC and RO related questions for NCDEQ, contact the Division of Waste Management at **919-707-8200**. Ask the NCDEQ receptionist to speak to someone regarding GAC systems around the Chemours facility. NCDEQ Gen-X investigation information is also available online at: https://deq.nc.gov/news/key-issues/genx-investigation

If I decline the offer, what happens?

We understand that not every homeowner will accept this offer. Should you choose to decline, please complete the information below, including signature and date, and return it to us in the enclosed envelope. We will continue to provide home delivery of bottled drinking water or, should you prefer, as an alternative to bottled water, we can provide you with a Lowes or Home Depot gift card for use in purchasing an under-the-sink reverse-osmosis treatment unit. The units are easy to install and are effective in removing GenX and similar compounds.

NAME: _____ *(Please Print)*

ADDRESS: _____

_____

I Decline the offer of treatment from Chemours:

SIGNATURE: _____

DATE: _____

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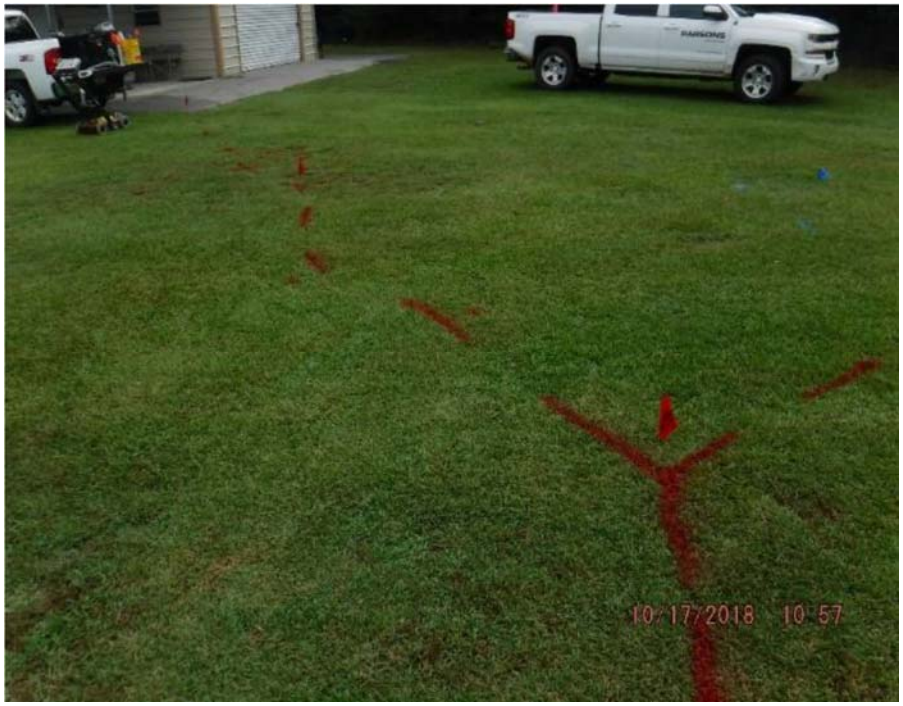
GAC System Installation Process Overview

GAC Installation Process

The process begins with a simple interview of about one hour, where a Parsons representative will explain the installation process and what you can expect from your new GAC system. During the interview, you will be asked a few questions about your water usage, what dates/times are best for installation and determine if you have any existing whole house or under sink filters that need to be replaced. After all questions are answered about the GAC system and everything has been explained, a signature will be required from the homeowner authorizing Chemours and their contractors to install, operate and maintain the GAC system. All Parsons employees will be in marked vehicles, wearing “Parsons” logo’ d clothing, and will have both a Chemours contractor badge and Parsons employee badge to be easily identified.

Utility Locate

After signing the operation and maintenance agreement; the next step will be to locate utilities. This will be conducted by NC811 and their contractors for public utilities as required by state law. Chemours has contracted with a private utility locator to locate underground non-public utilities. During this part of the installation, paint marks and pin flags will be placed in your yard as seen below.



Red paint and flags marking underground electrical lines

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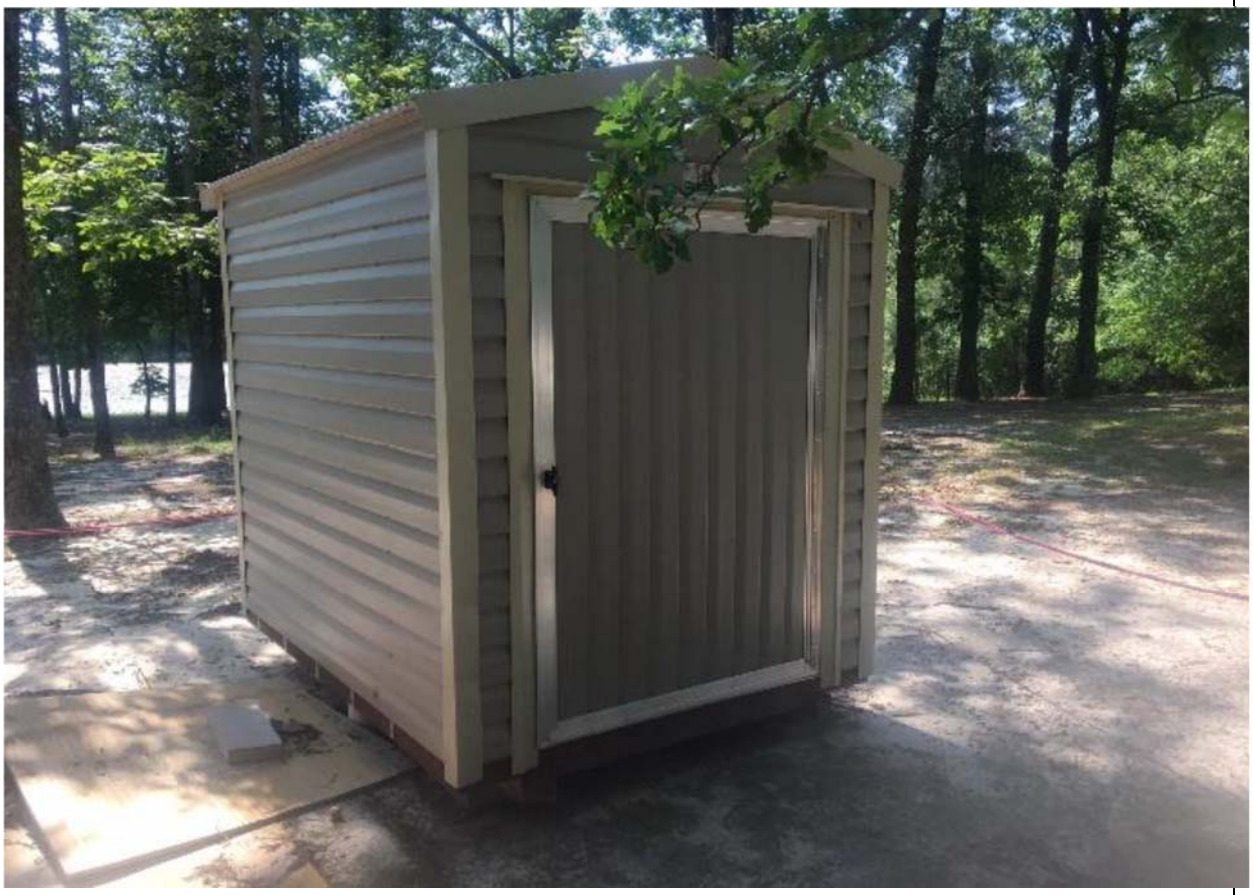
Shed Placement

Once utilities are located, the next step will be to deliver the shed with your system. The location of the shed will be discussed during your Initial Interview. Shed placement can be affected by zoning laws, utility locations, existing conditions, etc.



Example 6-foot x 8-foot GAC Shed

Electrical Installation

Once the shed is installed and secured, you will be contacted by Parsons personnel to set an appointment for installation of electrical lines. This process will require trenching and patching into your electrical panel. Subcontracted licensed electricians will perform all work under the supervision of Parsons staff. Shallow trenches approximately 24 - inches deep will be marked and left open until county inspections are complete. Any damage to your lawn will be repaired with grass seed of your choosing. This step may require resident to be present if the homes' electrical panel is located inside the home.

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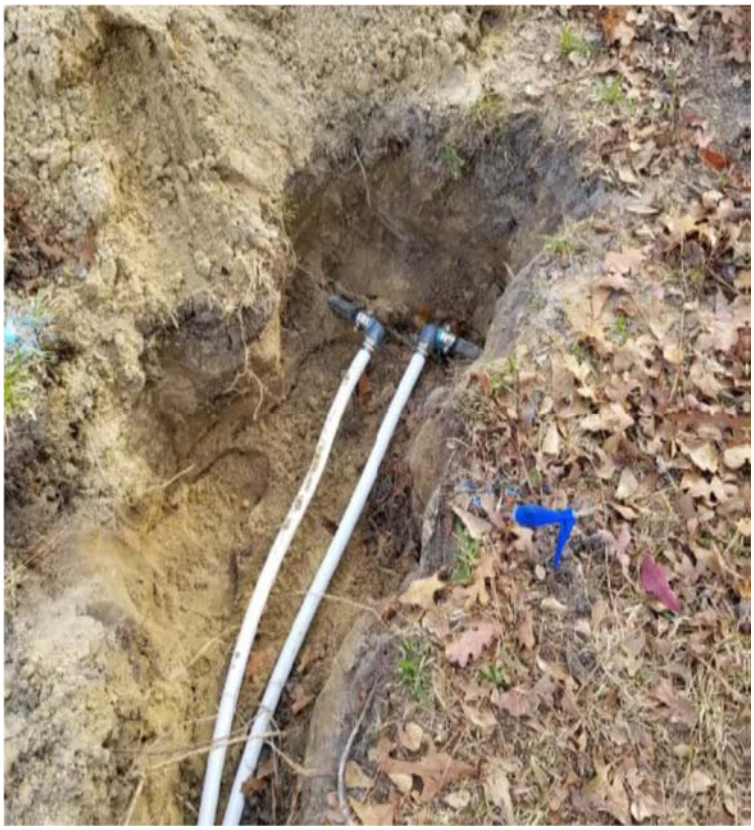
Plumbing Installation

Once the shed is installed and secured you will be contacted by Parsons personnel to set an appointment for installation of plumbing. This process will require trenching and patching into your existing plumbing lines. Subcontracted licensed plumbers will perform all work under the supervision of Parsons staff. Trenches will be marked and left open until county inspections are complete. Any damage to your lawn will be repaired with grass seed of your choosing. On the day of GAC plumbing installation or on a follow-up visit Chemours contractors will flush sediments from your water heater and briefly flush your hot- and cold-water lines with treated water for 5 minutes. If your home has an existing whole-house filter, it will be replaced if serviceable or bypassed to prevent the possibility of small amounts of Gen-X or other PFAS compounds from being released back into your treated water.



Example water line connection trench

Permit Approval

All GAC installation work is being completed by licensed subcontractors working under the appropriate county permits. The GAC shed and shallow electrical and plumbing trenches will be inspected by County Officials during visits that Parsons may not be able to coordinate with residents. During these visits a County Inspector will visit your property and briefly inspect the work that

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Chemours contractors have completed. Once the work is approved, Chemours contractors will return to your property to backfill the shallow trenches, restore your yard and secure the GAC Shed.

Initial Sampling

Initial sampling will be scheduled approximately 1 to 2 weeks after installation. A Parsons employee will contact you in advance to schedule a time for the sampling visit. Sampling takes about an hour and in this time, water will be briefly shut off from your house.
After sampling is conducted, water will be restored and samples will be sent out for analysis. A copy of your results will be provided 7 days after Chemours receives the lab results.

Operation and Maintenance

Approximately every three months, a Parsons team will contact you to schedule an operation and maintenance visit. During this visit, sampling and any maintenance needs will be conducted. All GAC sheds will have a 24-hour emergency GAC service hotline phone number **(800-673-7096)** attached to the exterior for emergencies such as leaks from the GAC system or a loss of water flow to the home.

Contact Information – Additional GAC Questions

If you have any additional questions, please contact **910-678-1101** and leave a detailed message. Your message will be recorded, reviewed by Chemours and their contractors, and you will receive a follow-up call. Chemours Gen-X (C3- dimer acid and PFAS) information is also available online at: https://www.chemours.com/Fayetteville-Works/en-us/
Please direct GAC-related questions for NCDEQ to the Division of Waste Management, at **919-707-8200**. Ask the NCDEQ receptionist to speak to someone regarding GAC systems around the Chemours facility. NCDEQ Gen-X investigation information is also available online at: https://deq.nc.gov/news/key-issues/genx-investigation