

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

GRANULAR ACTIVATED CARBON POINT-OF-ENTRY TREATMENT SYSTEM MINIMUM SPECIFICATIONS

GENERAL SPECIFICATIONS

- The Remediating Party is to use a treatment system appropriate for the removal of the contaminants of concern from the entire residence/structure. When a granular activated carbon point-of-entry treatment (POET) system is used these minimum specifications must be followed.
- The system will have all of the components indicated in the attached schematic (Attachment A) including sediment filters, sampling taps, shutoff valves and tanks.
- All systems and associate plumbing must meet local plumbing codes.
- The unit should be located in a space that will not freeze. If this can not be done insulation must be provided.
- The system must treat a minimum of 5 gallons per minute.
- Glued joints shall not be used in any part of the system.
- The system is to remove the contaminants specified in Attachment B to a non-detectable level.
- The POET system will be piped using the same type of piping material used in the structure.
- Irrigation systems must be disconnected from the treated water supply.

DETAILED SPECIFICATIONS

- The GAC unit shall consist of a dual tank system piped in series as shown in Attachment A.
- Tanks size: 12 X 52 inches fiberglass tanks.
- Each tank is to contain 2.0 cubic feet of GAC for a system total of 4.0 cubic feet.
- Virgin grade coconut shell GAC is to be used.
- Pre and Post sediment filters are to be installed as shown in the schematic.
- Shutoff valves are to be full flow ball valves.
- All sampling taps are to be boiler drain valves and located with sufficient room to allow for samples to be taken. Sample taps are to be labeled with permanent tags indicating RAW, BETWEEN and FINISHED.
- Flow in the tanks is to be down flow and non-backwashing.
- If concentrations of iron are in excess of 0.3 parts per million, a water softener maybe needed as pretreatment. The water softener must be appropriately sized. Minimum specifications are provided below.
 - The water softener unit should contain 1.5 cubic feet of cation resin with a Demand Initiated Regeneration (DIR) backwashing valve.
 - The brine tank should have a minimum capacity of 250 pounds of salt.

GENERAL MONITORING AND MAINTENANCE REQUIREMENTS

- The Remediating Party is to arrange and schedule the sampling of the treatment system.
- The Remediating Party is to arrange with a laboratory to analyze the samples taken from the system.
- The laboratory must be certified by the State of New Jersey to conduct the required analytical method.
- Neither the POET vendor nor homeowners are permitted to take the samples.
- Copies of the results are to be sent to the IEC Case Manager, the homeowner, and the POET vendor.
- A post installation treated water sample must be collected within 72 hours of the installation of the system and analyzed within two weeks of sample collection. Results must be reported to the property owner within one week.
- Raw water samples will be taken prior to the first tank.
- Treated water samples will be taken between the first and second tank.
- The Remediating Party is responsible for all maintenance on the POET system so that the system works effectively.
- Breakthrough is defined as an exceedence of ½ of the Ground Water Remediation Standards in the sample taken between the tanks.
- If breakthrough between the tanks occurs, the Remediating Party is to rebed the first tank and put it in the second tank position; the second tank is to be placed in the first tank position.
- All spent media is to be properly disposed of by the POET vendor.

DETAILED MONITORING AND MAINTENANCE REQUIREMENTS

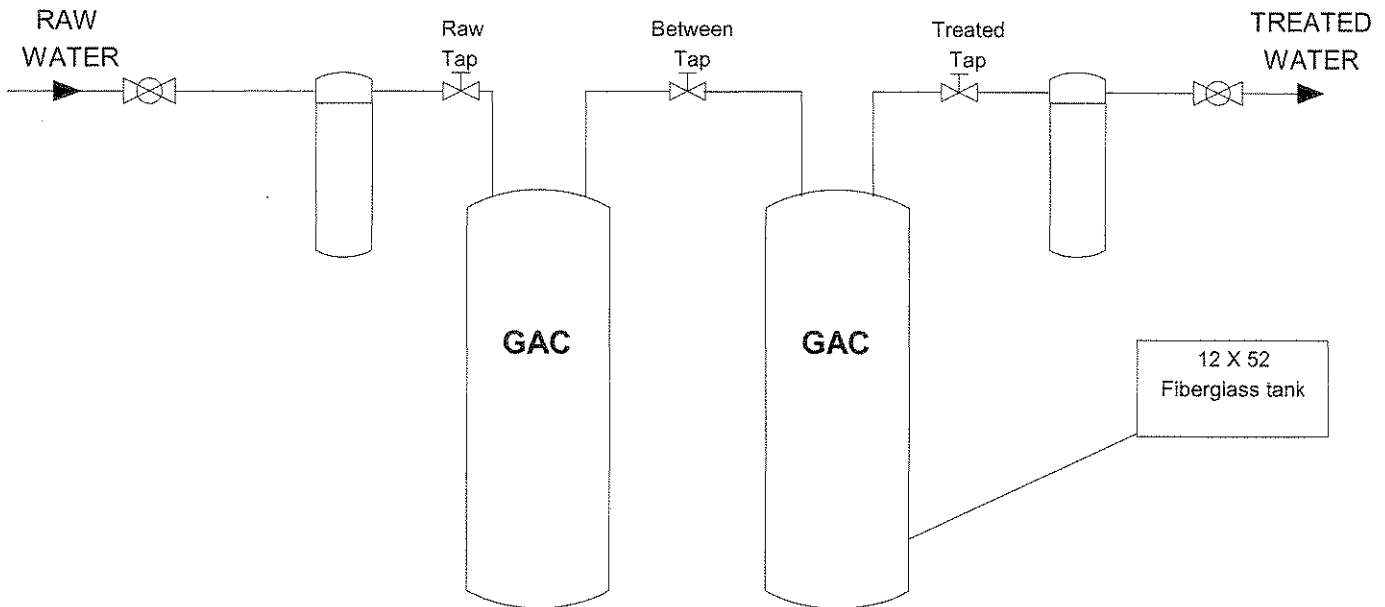
- The raw water will be sampled and analyzed once a year.
- The treated water samples will be taken from the tap between the tanks marked "Between". For raw water volatile organic concentration of 25 parts per billion (ppb) or less the treated water will be sampled every six months. For volatile organic concentrations greater than 25 ppb, the treated water will be monitored quarterly. For unusual situations the actual number of raw and treated samples taken each year can be determined on a case by case basis by consulting with the IEC case manager.
- A GAC tank will be changed when breakthrough is detected.
- Change both pre and post sediment filters once a year.
- If a water softener is used, it is to be maintained with sufficient salt for proper operation.

ADDITIONAL INFORMATION

Attachment A: Schematic of treatment system(s)

Attachment B: Potable water test results

GAC POET SYSTEM SCHEMATIC



LEGEND



SEDIMENT FILTER
4x20 INCH: 50 to 5 MICRON



SAMPLE TAP



BALL VALVE