

NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION

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

GENERAL SPECIFICATIONS

The Remediating Party should use a treatment system appropriate for the removal of the contaminants of concern for the entire residence/structure. When a granular activated carbon (GAC) point-of-entry treatment (POET) system is used these minimum specifications should be followed.

- The system should have all of the following components: sediment filter, 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 should be provided.
- The system should treat a minimum of 5 gallons per minute.
- Glued joints should not be used in any part of the system.
- The system should remove the contaminants of concern to below the Ground Water Quality Standards.
- Irrigation systems should be separate from the treated water supply to prolong the life of the GAC.

DETAILED SPECIFICATIONS

- The GAC unit should consist of a dual tank system piped in series.
- Each tank should contain 1.5 cubic feet of GAC.
- Virgin grade GAC should be used.
- Pretreatment sediment filter should be installed to prevent the GAC from being fouled.
- The use of full flow ball valves for shutoff is recommended to reduce pressure losses.
- All sampling taps should be boiler drain valves and located with sufficient room to allow for samples to be taken. Sample taps should be labeled with permanent tags indicating RAW, BETWEEN and FINISHED.
- Flow in the tanks should 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 to prevent iron fouling.

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.
- The homeowner should not take the samples.
- Raw water samples should be taken prior to the first tank.
- Treated water samples should 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 Quality Standards in the sample taken between the tanks.
- If breakthrough between the tanks occurs, the Remediating Party should either replace or re-bed the first tank and put it in the second tank position; the second tank should be placed in the first tank position.
- All spent media is to be disposed of properly.
- Change sediment filters as needed

SPECIFIC MONITORING REQUIREMENTS

- Raw water should be sampled annually.
- Treated water samples should be sampled as follows:
 - For raw water having total volatile organic compounds* (VOCs) of < 25 parts per billion (ppb), the treated water should be sampled biannually.
 - For raw water having total VOCs of > 25 ppb, the treated water should be sampled quarterly.

* Total VOCs is the sum of all targeted and non-targeted compounds