NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION CONTAMINATED SITE REMEDIATION & REDEVELOPMENT ENVIRONMENTAL CLAIMS ADMINISTRATION

GRANULAR ACTIVATED CARBON (GAC) POINT-OF-ENTRY TREATMENT (POET) SYSTEM SPECIFICATIONS FOR PRIVATE WELLS

GENERAL SPECIFICATIONS

- The system must have all the components indicated in the attached schematic marked Attachment A, including pre- and post-treatment sediment filters, sampling taps, shutoff valves, pressure gauges, and tanks.
- All systems and associated plumbing must meet local plumbing codes.
- The unit must be located in an area or space that will not freeze. If the unit cannot be placed in such a location, insulation must be provided, and this cost included in the bid.
- The system must be able to treat a minimum of five (5) gallons per minute.
- Glued joints must not be used in any part of the system.
- The system must remove the contaminants specified to a level below the Maximum Contaminant Level (MCL) or Ground Water Quality standard (GWQS), if no MCL is established.
- The system must be piped using the same type of piping material used in the structure. The piping material being used must be specified in the bid.
- Irrigation systems must be disconnected from the finished water supply.
- A pressure drop of no more than 15 psi should be measured by the system at the final pressure gauge post installation.

DETAILED SPECIFICATIONS

- All systems must be installed according to the manufacturer's specifications.
- All components must comply with NSF/American Standards Institute (ANSI)61: Drinking Water System Components.
- All Granular Activated Carbon (GAC) must be used/installed according to the manufacturer's specifications.
- The GAC unit must consist of a dual tank system piped in series as shown in Attachment A.
- Each tank must contain 1.5 cubic feet of GAC for a system total of 3.0 cubic feet (two (2) tanks x 1.5 cubic feet).
- Virgin grade coconut shell GAC must be used.
- Pre- and post-sediment filters must be installed as shown in Attachment A. The sediment filters must be at minimum a 1-inch National Pipe Thread (NPT) big blue (4-inch diameter by 20 inches long) filter housings. The filter cartridges must be graded from 50 to 5 microns.
- Shutoff valves must be full flow ball valves.
- All sampling taps must be boiler drain valves and located with sufficient room to allow samples to be collected. Sample taps must be labeled with permanent tags (Example: laminated tags) indicating RAW, Mid-Point, and Finished.
- Sealing of threads using pipe sealant must be NSF/ANSI 53 certified to not contain any PFAS.

OPERATIONAL SPECIFICATIONS

- A pH sample, Total Suspended Solids (TSS) sample, Iron sample, and Manganese sample must be collected when the confirmation Raw sample is collected.
- Waterflow through the tanks must be down flow and non-backwashing.
- If concentrations of iron exceed 0.3 parts per million, a water softener may be needed as pre-treatment.
- All iron testing must be analyzed by a state certified laboratory and submitted with the bid as justification for the need for a water softener.

- The water softener unit must contain 1.5 cubic feet of cation resin with a Demand Initiated Regeneration (DIR) backwashing valve.
- The brine tank must have a minimum capacity of 250 pounds of salt.
- If a larger water softener is required, this must be specified in the bid.
- In accordance with N.J.A.C 7:1J-6.5(a)1, the DEP will inspect the installation of the treatment system if DEP determines such an inspection is required.

GENERAL MONITORING AND MAINTENANCE REQUIREMENTS

- The vendor must arrange and schedule with a State-certified laboratory to collect and analyze samples taken from the system.
- The laboratory must be certified by the state of New Jersey to conduct the required analytical method(s).
- Samples must be collected by an individual who has had proper training to eliminate any potential instances of cross-contamination. Neither the POET vendor nor property owner is permitted to take samples.
- Samples must be collected in accordance with the Field Sampling Procedures Manual (FSPM), Chapter 6, Section 9.8. <u>https://dep.nj.gov/srp/guidance/fspm/</u>
- If sampling for PFAS, in accordance with N.J.S.A. 58:10A-10.3, the Department is requesting that the full list of PFAS compounds analyzed and reported by the respective analytical methods be reported.
- Copies of the laboratory results must be sent to the Environmental Claims Administration (ECA) claim manager, the homeowner, and the POET vendor.
- The laboratory must submit invoices directly to the ECA via email to srpspillfundinvoices@dep.nj.gov with copies of the laboratory reports.
- A post-installation water sample must be collected from the finished water tap (post treatment) within seven (7) days of the installation of the system. The laboratory must report results within three (3) weeks of the date the sample is delivered to the lab.
- The laboratory must report in a written format all results for the samples discussed below within three (3) weeks of the date the sample is delivered to the lab.
- Samples of raw water must be taken from the raw water tap prior to the first tank. See Attachment A.
- "Mid tap" samples (treated in-between tanks) must be taken from the tap between the first and second tank. See attachment A.
- The vendor is responsible for all maintenance on the system to ensure that the system continues to work effectively.
- Breakthrough is defined as an exceedance of one-half of any MCL or GWQS in the sample collected from the mid tap, in-between the tanks.
- If breakthrough is detected from the mid tap (in-between) sample, the vendor must contact the ECA at srp_spillfund_gq@dep.nj.gov to confirm the need for a re-bed.
- If a breakthrough in-between the tanks occurs, only the first tank is to be re-bedded with fresh, virgingrade coconut shell GAC. This re-bedded tank must then be placed in the second tank position and the second tank must be placed in the first tank position.
- All spent media must be properly disposed of by the vendor.
- Both pre- and post-sediment filters must be changed one (1) time per year. The bid price must include costs for both labor and materials.
- If a water softener is used, it must be maintained with sufficient salt for proper operation. The price to maintain the salt level must include costs for both labor and material.

DETAILED MONITORING AND MAINTENANCE REQUIREMENTS

POET systems with Raw Volatile Organic Compound (VOC) results less than or equal to 25 micrograms per liter [ug/l; aka parts per billion (ppb)] or Raw Per- and Polyfluoroalkyl Substances (PFAS) results less than or equal to 100 nanograms per liter [ng/l; aka parts per trillion (ppt)]:

- The raw water must be sampled and analyzed one (1) time per year.
- The treated water samples must be collected from the mid tap (in-between the GAC tanks).
- The treated water must be sampled and analyzed every six (6) months. Treated water samples collected less than six (6) months apart will not be approved for payment.
- ECA reserves the right to require additional raw and treated samples be collected each year on a case-by-case basis.
- GAC tanks will only be changed when a breakthrough occurs. The vendor is required to obtain preapproval from ECA in order to re-bed the POET.
- When GAC re-bed is approved by ECA, the first tank in the series must be re-bedded with fresh virgin grade coconut shell GAC. This re-bedded tank must then be placed in the second tank position and the second tank must be placed in the first tank position.

POET systems with Raw (VOC) results greater than 25 ug/l; or Raw Per- and Polyfluoroalkyl Substances (PFAS) results greater than 100 (ng/l):

- The raw water must be sampled and analyzed one (1) time per year.
- The treated water samples must be collected from the mid tap (in-between the GAC tanks).
- The treated water must be sampled and analyzed every three (3) months. Treated water samples collected less than three (3) months apart will not be approved for payment.
- ECA reserves the right to require additional raw and treated samples be collected each year on a case-bycase basis.
- GAC tanks will only be changed when a breakthrough occurs. The vendor must obtain pre-approval from ECA in order to re-bed the POET.
- When GAC re-bed is approved by the ECA, the first tank in the series must be re-bedded with fresh virgin grade coconut shell GAC. This re-bedded tank must then be placed in the second tank position and the second tank must be placed in the first tank position.

ENVIRONMENTAL CLAIMS ADMINISTRATION (ECA) REQUIREMENTS

- The Property owner must have an approved Spill Fund Damage claim and signed and notarized Spill Fund release form.
- Three (3) bids from different POET vendors must be obtained and submitted.
- The property owner must submit a GAC POET bid form for each vendor.

BID EVALUATION FOR THE PURPOSE OF THE SPILL FUND DAMAGE CLAIM

For the purpose of the ECA, the bids will be evaluated using the following "Bid Evaluation Assumptions":

- 1. Raw water sampled once every year.
- 2. Treated water sampled collected two (2) times per year (every six (6) months).
- 3. Both pre- and post-sediment filters changed once every year.

ADDITIONAL INFORMATION

- 1. Attachment A: Schematic of treatment system(s)
- 2. The POET Installation Form must be completed by your vendor, upon completion of the installation.
- 3. The vendor must account for raw water quality, water usage, concentration of contaminant, and performance of the GAC media when evaluating the treatment requirements at each location.
- 4. The Raw sampling of pH, Total Suspended Solids (TSS), Iron and Manganese were added to the POET Specifications to in order to address the need for any additional pre-treatment equipment.

Property Address:

Street Address:

Municipality:	State: Zip Code:
GRANULAR ACTIVATE	D CARBON POET BID FORM
	UNIT PRICE
A. POET Unit Cost 1. Supply and install POET unit as shown in schematic	\$
2. Piping material proposed (copper or plastic – please circle	one) \$
 B. Water Softener Cost (if required) 1. Cost of softener including installation (if iron levels are a) 	bove 0.3 ppm) \$
 C. Maintenance Costs (GAC) 1. Re-bed 1 GAC tank and proper disposal of GAC 	\$
2. Replace 2 sediment filter cartridges (including labor, mate	erials, & fees) \$
D. Maintenance Costs (Softener)	
3. Fill brine tank with salt (if required) including service and	d delivery \$
4. Salt bag cost (if required) – per service	\$
E. Laboratory Costs 1. EPA method, 3-week turn-around	\$
2. EPA method, 3-week turn-around	\$
3. PFAS Field Reagent Blank Cost (PFAS Damage only)	\$
4. Name of Certified Lab:	
Street Address:	
Municipality:	_ State: Zip Code:
NOTE: ALL UNIT PRICES ARE TO INCLUDE THE COS	Γ OF MATERIALS, LABOR, AND DISPOSAL
F. Guarantee1. Provide guarantee that the unit will remove the targeted co2. Provide a copy of the manufacturer's guarantee	ntaminants
G. Payment Will vendor accept direct payment from the ECA via a third-	party check? Yes No
Vendor:	
Street Address:	
Municipality: State	Zip Code:
Telephone:	
Print Name:	
Signature: Date:	
NOTE: The signature on this form must be original. Di This form must be completed and submitted to the	gital or photocopied signatures will not be accepted ECA for each POET vendor that provides a bid.

Property Address:	Spill Fund POET Installation Form			
Installation Date:				
Installation Location: (choose only one)	Closet	Garage	Basement	
	Crawl Space	External Shed	Other	
Installation Vendor Name:				
Number of Treatment Tanks Installed and Sizes:				
Type of Media Used:				
Amount of Media Used:				
Pre/Post Treatment Sediment Filter Type:				
Type of Piping Used:				
Pipe Joint Material Used:				
Type of Sampling Tap Installed:				
Sampling Taps Properly Labeled:		Yes I	No	
Number of Pressure Gauges Installed:				
Post Installation Pressure Readings:				
Please include a photo of the installed system				
Pressure Tank Gauge Reading:				
Post Sediment Filter/Pre-				
Treatment Gauge Reading:				
Between Tanks Gauge				
Reading:				
Post Treatment/Pre-Sediment				
Filter Gauge Reading:				
Finished Water Gauge				
Reading:				
Vendor Name:				
Employee Name:				
Signature:				
Date:				
NOTE: The signature on this form mus	the entries Dist.	l or photoconicd signa	4	

NOTE: The signature on this form must be original. Digital or photocopied signatures will not be accepted. This form must be completed and submitted to the ECA once the POET System has been installed.

