

## State of New Jersey DEPARTMENT OF ENVIRONMENTAL PROTECTION Mail Code 401-04Q

Division of Water Supply & Geoscience – Bureau of Water System Engineering 401 East State Street – P. O. Box 420, Trenton, New Jersey 08625-0420 Application Form for a Nontransient Noncommunity Treatment Permit

| 1. | Applicant Details                    |                                       |   |
|----|--------------------------------------|---------------------------------------|---|
|    | Applicant/Owner/Company Name         | e:                                    |   |
|    |                                      |                                       |   |
|    | City/Town:                           | State:                                | Zip Code:                               |
|    | Telephone:                           | E-mail:                               |   |
|    | Contact Person Name:                 |                                       | Title:                                  |
| 2. | Water System Details                 |                                       |   |
|    | PWSID:                               |                                       |   |
|    |                                      |                                       |   |
|    | Address of Water System:             | · · · · · · · · · · · · · · · · · · · |   |
|    |                                      |                                       | County:                                 |
|    | Zip Code:                            | Block:                                | Lot:                                    |
|    | State Plane Coordinates (NAD83       | US Feet) X (Eas                       | sting): Y (Northing):                   |
|    | Coordinates are for the: $\Box$ Cent | roid of Developn                      | nent 🗆 Well 🗀 Treatment Plant           |
|    | Survey Method:   Digital Imag        | ge 🗆 GIS 🗆 S                          | urvey $\square$ Map                     |
|    | Telephone:                           | E-mail:                               |   |
|    |                                      |                                       | Title:                                  |
| 3. | This Application is for the appr     | oval of the follo                     | wing (check one or more as applicable): |
|    | ☐ pH Adjustment                      |                                       |   |
|    | ☐ Corrosion Inhibitors               |                                       |   |
|    | ☐ Chlorination                       |                                       |   |
|    | ☐ Ultraviolet Radiation              |                                       |   |
|    | ☐ Filtration (Includes Ion Excha     | nge)                                  |   |
|    | ☐ Granular Activated Carbon (G       | JAC)                                  |   |
|    | ☐ Aeration                           |                                       |   |
|    | ☐ Packed Column Aeration             |                                       |   |
|    | □ Other:                             |                                       |   |

Note: Treatment applications involving Surface Water, Groundwater Under Direct Influence, or 4-Log Inactivation shall be submitted directly to the New Jersey Department of Environmental Protection's Bureau of Water System Engineering for approval.

The following sections of the application form are applicable for each treatment below. Please note that a process flow diagram showing all proposed and existing treatment, and specification sheets for all proposed chemical additives, equipment, and/or materials are required to be submitted along with this application.

|               | pH<br>Adjustment | Corrosion<br>Inhibitor | Chlorination | UV | Filtration and Ion<br>Exchange | GAC | Aeration | Packed<br>Column<br>Aeration |
|---------------|------------------|------------------------|--------------|----|--------------------------------|-----|----------|------------------------------|
| Section 4     | X                | X                      | X            | X  | X                              | X   | X        | X                            |
| Section 5     | X                | X                      | X            |    |                                |     |          |                              |
| Section 6     |                  |                        |              | X  |                                |     |          |                              |
| Section 7     |                  |                        |              |    | X                              |     |          |                              |
| Section 8     |                  |                        |              |    |                                | X   |          |                              |
| Section 9     |                  |                        |              |    |                                |     | X        |                              |
| Section<br>10 |                  |                        |              |    |                                |     |          | X                            |
| Section<br>11 | X                | X                      | X            | X  | X                              | X   | X        | X                            |

| 4.     | Water System Report                                   |
|--------|---|
| a.     | Project Statement/Summary:                            |
|        |   |
|        |   |
|        |   |
|        |   |
| b.     |   |
|        | Transient Population: Non-transient Population:       |
| c.     | Wells, Well Permit Numbers, and Well Capacities:      |
|        |   |
|        |   |
|        |   |
|        |   |
| d.     | Existing Treatment and Purpose                        |
|        |   |
|        |   |
|        |   |
|        |   |
| e.     | Safety Features:                                      |
|        |   |
|        |   |
|        |   |
| f.     | Is the system without existing and proposed bypasses? |
|        | Y es No   |
| If no, | please explain:                                       |
|        |   |
|        |   |

| g. | Are all chemicals that come into contact with drinking water ANSI/NSF 60 certified or equivalent?           | Yes | No |
|----|---|-----|----|
| h. | Are all materials that come into contact with drinking water ANSI/NSF 61 certified or equivalent?           | Yes | No |
| i. | Will all material in contact with water be disinfected before being placed into service (AWWA C651 – C654)? | Yes | No |
| j. | Is a treatment diagram / flow chart attached?   | Yes | No |
| k. | Does the treatment diagram show sample taps before and after treatment?                                     | Yes | No |
| 1. | If disinfection is installed, is it shown as the last treatment process inline?                             | Yes | No |
| m. | Are specification sheets provided for all proposed chemical additives, equipment, and/or materials?         | Yes | No |

| 5.               | <b>Chemical Handling and Feeding Treatment Application Checklist:</b>   |               |           |
|------------------|---|---------------|-----------|
| a.               | Name of Chemical Used and Purpose:  |               |           |
| b.               | Chemical Manufacturer:  |               |           |
| c.               | Chemical Concentration:   |               |           |
| d.               | Make and Model of Pump:   |               |           |
| e.               | Pump Capacity:  |               |           |
| f.               | Chemical Dosage:  |               |           |
| g.               | Chemical Storage Capacity and Brand/Material:   |               |           |
| h.               | Are proper safety measures provided, such as Safety Data Sheets (SDS) and an eyewash station?   | Yes           | No        |
| i.               | Do chemical storage tanks areas include secondary containment?  | Yes           | No        |
| j.               | Is the treatment area well ventilated and temperature controlled?   | Yes           | No        |
| k.               | Are chemical storage tanks covered to prevent contamination?  | Yes           | No        |
| 1.               | Do chemical storage tanks provide a minimum of 24-hours of storage at normal operating feed rates?  | Yes           | No        |
| f chlo<br>olank. | rination treatment is being applied for, provide answers for the following qu   | estions. If n | ot, leave |
| m.               | Does the system achieve the required 5-minutes of chlorine contact time for ground water systems or 30-minutes for surface water systems? | Yes           | No        |
| n.               | Is the pump a positive displacement pump?   | Yes           | No        |

o. Is chlorination the last form of treatment? Yes \_\_\_\_ No \_\_\_

p. Are chlorine feeds synchronized with the operation of the well pump? Yes \_\_\_\_ No \_\_\_

## 6. <u>Ultraviolet Light Checklist</u>

| a. | Is UV the last form of treatment?   | Yes | No |
|----|---|-----|----|
| b. | Are UV tubes jacketed so that a temperature of 105° Fahrenheit is maintained?   | Yes | No |
| c. | Is the jacket on the UV tubes quartz or high silica glass with similar optical characteristics?   | Yes | No |
| d. | Is the unit designed to permit frequent mechanical or manual cleaning of the water contact surface of the UV light tube jacket?   | Yes | No |
| e. | Is a UV radiation level of 2,537 Angstrom to be applied at all points throughout the disinfection chamber at a minimum rate of 16,000 microwatt seconds per square centimeter?  | Yes | No |
| f. | Is the maximum water depth in the disinfection chamber 3 inches or less when measured from the UV light tube surface to the outer wall of the chamber?  | Yes | No |
| g. | Is there an automatic flow control valve, accurate within the expected pressure range, to restrict flow to the maximum design flow of the UV disinfection unit?   | Yes | No |
| h. | Is there an accurately calibrated UV light intensity meter, filtered to confine its sensitivity to the range of disinfection spectrum, installed in the wall of the disinfection chamber at the point of greatest water depth from the light transmitting source? | Yes | No |
| i. | Is there a flow diversion valve or automatic shut off valve controlled by the UV light intensity meter to permit water flow in to the water system only when the minimum radiation level is applied?  | Yes | No |
| j. | Is the UV disinfection unit installed in such a manner that it cannot be bypassed?  | Yes | No |
| k. | Is the proposed UV disinfection units ANSI/NSF Standard 55 certified and will it be operated at the rate of certification?  | Yes | No |

| 7. | Filtration and Ion Exchange Treatment Application Checklist:  |     |    |
|----|---|-----|----|
| a. | Contaminant to be Removed:  |     |    |
|    |   |     |    |
| b. | Name of Media:  |     |    |
|    |   |     |    |
| c. | Media Layer Thickness:  |     |    |
|    |   |     |    |
| d. | Number of Tanks/Vessels:  |     |    |
|    |   |     |    |
| e. | If ion exchange resin is being used to treat PFAS contamination, are the units in series? If not, please explain: | Yes | No |
|    | 71 I  |     |    |
| f. | Name and Dimensions of the Tanks/Vessels:   |     |    |
|    |   |     |    |
| g. | Tanks/Vessels Material:   |     |    |
|    |   |     |    |
| h. | Design Capacity of the Treatment (gpm):   |     |    |
|    |   |     |    |
| i. | Are the filters protected from sanitary hazards?  | Yes | No |
| j. | Are there no common walls between treated and untreated water?  | Yes | No |
| k. | Are there no cross connections between treated and untreated water?   | Yes | No |
| 1. | Is the thickness of the filter media at least 24 inches?  | Yes | No |
| m. | Is at least 12 inches of graded gravel placed over the underdrain?  | Yes | No |
| n. | Is each filter provided with equipment to facilitate cleaning and placing or replacement of the filter media?     | Yes | No |

| o. | Does the filter have backwashing?  | Yes | No |
|----|--|-----|----|
| p. | If yes to the item above, is filtered water used?  | Yes | No |
| q. | Are there any direct connections between backwash water lines and sanitary or storm sewer lines? | Yes | No |
| r. | Are discharges made through an above ground air gap?   | Yes | No |
| s. | Is the treatment area well ventilated and temperature controlled?                                | Yes | No |
| t. | Are sampling taps provided before and after each filtration unit?                                | Yes | No |

| 8. | <b>Granular Activated Carbon (GAC) Treatment Application Checklis</b>  | <u>t:</u> |    |
|----|--|-----------|----|
| a. | Contaminant to be Removed:   |           |    |
| b. | Name of GAC Media (Manufacturer and Brand):                            |           |    |
| c. | GAC Media Layer Thickness:   |           |    |
| d. | Number of GAC Contractors/Units:                                       |           |    |
| e. | GAC Units in Parallel or in Series?                                    |           |    |
| f. | Name and Size (including diameter) of the GAC Contractor/Unit:         |           |    |
| g. | GAC Contractor/Unit Material:  |           |    |
| h. | Design Capacity of the Treatment (gpm):                                |           |    |
| i. | Does the GAC have a minimum carbon life of 3 months?                   | Yes       | No |
| j. | Are sampling taps provided before and after each GAC unit?             | Yes       | No |
| k. | Is the GAC layer/bed at least 48 inches deep (if not, please explain)? | Yes       | No |
| 1. | Is the treatment area well ventilated and temperature controlled?      | Yes       | No |

|--|

| a. | Type:  | Purpose:                                     |           |       |  |
|----|--|--|-----------|-------|--|
|    | ☐ Diffused Air                               | ☐ Oxidation (Iron, manganese, arsenic, etc.) |           |       |  |
|    | ☐ Spray                                      | ☐ pH Adjustment                              |           |       |  |
|    | ☐ Cascade                                    | ☐ Volatile Organic Compounds                 | (VOCs) Re | moval |  |
|    |  | ☐ Other:                                     |           | _     |  |
| b. | Air Flow Rate:                               |  |           |       |  |
| c. | Water Flow Rate:                             |  |           |       |  |
| d. | Dimensions:                                  |  |           |       |  |
| e. | Construction Material:                       |  |           |       |  |
|    |  |  |           |       |  |
| f. | Does the incoming air pass through a so      | creen of not less than 24 mesh?              | Yes       | No    |  |
| g. | Does the construction prevent contamir etc.? | nation by birds, insects, rainfall,          | Yes       | No    |  |
| h. | Are all forced air aeration units equippe    | ed with air filters?                         | Yes       | No    |  |
| i. | Is the treatment area well ventilated and    | d temperature controlled?                    | Yes       | No    |  |

## 10. Packed Column Aeration Treatment Application Checklist:

| a. | Construction Material:  ☐ Aluminum ☐ Stainless Steel ☐ Fiberglass ☐ Other: | Purpose:  ☐ Oxidation (Iron, manganese, and pH Adjustment) ☐ Volatile Organic Compounds (☐ Other: | (VOCs) Re | emoval |
|----|--|---|-----------|--------|
| b. | Column Dimensions:   |   |           |        |
| c. | Packing Height:  |   |           |        |
| d. | Water Flow Rate:   |   |           |        |
| e. | Air Flow Rate:   |   |           |        |
| f. | Packing Type:  |   |           |        |
| g. | Packing Size:  |   |           |        |
| h. | Are means provided to prevent hydrauli                                     | c flooding of the column?   | Yes       | No     |
| i. | Is a moisture barrier (demister) provided                                  | <b>i</b> ?  | Yes       | No     |
| j. | Is the column designed to prevent scalin                                   | ng?   | Yes       | No     |
| k. | Is vapor phase treatment provided, if red                                  | quired?   | Yes       | No     |
| 1. | Are pre and post column water sampling                                     | g taps provided?  | Yes       | No     |
| m. | Are a protective screen of a minimum 2                                     | 4 mesh and air particulate filters?   | Yes       | No     |

## 11. Application Certification:

| Water System Owner:    |   |
|------------------------|---|
|                        | the information provided in this document is true, accurate and e significant civil and criminal penalties for submitting false, ion. |
| Name:                  | Position:   |
| Signature:             | Date:   |
| Licensed Operator:     |   |
|                        | the information provided in this document is true, accurate and e significant civil and criminal penalties for submitting false, ion. |
| Name:                  | License No.:  |
| Signature:             | Date:   |
| Professional Engineer: | (Select N/A if no present Professional Engineer)  |
| □ N/A                  |   |
|                        | the information provided in this document is true, accurate and e significant civil and criminal penalties for submitting false, ion. |
| Name:                  | License No.:  |
| Signature:             | Date:   |
|                        | Professional<br>Engineer's<br>Embossed<br>Seal  |