

REQUEST TO CONSTRUCT, MODIFY, AND COMPLETED WORKS
FOR A REMOVAL SYSTEM FOR ORGANICS IN
A PUBLIC WATER SUPPLY SYSTEM

Description: Prior to the activation of a newly constructed or of a modified existing disinfection system, approval must be secured from the Westchester County Department of Health.

Applicable Codes: Part 5, Subpart 5-1 Section 5-1.22 of the New York State Sanitary Code and Chapter 873, Article VII, Section 873.707.5 of the Laws of Westchester County.

Fees: Chapter 873, Article XXI of the Laws of Westchester County.

Submittal: The submittal shall be filed by a licensed and registered Professional Engineer in the State of New York and forwarded to the Westchester County Department of Health, 145 Huguenot Street, 7th Floor, New Rochelle, NY 10801, Attention: Program Administrator. When requesting Approval of Plans for a project pursuant to the above provisions, the following list serves as the minimum requirements:

1. An original letter of authorization bearing the original signature of the owner or owner's representative authorizing the Professional Engineer to file permit applications and plans.
2. One (1) original form DOH-348 with all items completed. This form must be dated and bear the original signature of the applicant.
3. One (1) original Engineer's Report bearing the original signature and seal of a licensed and registered Professional Engineer in the State of New York. The Engineer's Report must provide a narrative of the scope, details, and specifications of the project including the criteria listed for either carbon adsorption or air stripping.
4. A minimum of three (3) sets of construction plans (one (1) set of plans will be retained by the Department) that are prepared by a Professional Engineer licensed and registered in the State of New York. These plans must bear the professional's original signature and seal, be prepared pursuant to Title VIII, Article 145, Section 7209 of the New York State Education Law and signed by the Municipal Engineer when applicable.

(A) Plan Contents:

(I) Minimum requirements to be included in the plans:

1. Location Map of the facility including appropriate streets, etc.
2. Site plan of the project denoting all proposed well (2) and existing wells including irrigation wells and the extent of plume if known.
3. A schematic flow diagram and profile view illustrating the well, piping network from well to distribution including equipment for organic removal such as carbon adsorber, air stripper, water softening, filters, and appurtenances. The diagram must illustrate the areas served by the proposed system and a floor plan of such.
4. Provide a note on plans indicating that disinfection will be performed in accordance with AWWA Standard C651-05 except for Section 4.4.2 and an acceptable bacteriological (E-Coli, HPC) and volatile organic chemicals EPA Method #524 + MTBE samples. Results must be submitted and accepted by the Westchester County Department of Health prior to the activation of the system.
5. The following applicable design criteria must be included on the plans:

Design Criteria for Carbon Adsorber System

1. Provide a minimum of two (2) adsorbers in series with each adsorber capable of removing the contaminant. The second adsorber will serve as back-up unit.
2. Submit original design sampling data denoting contaminant(s) to be removed.
3. Your removal design must be based on the contaminant exhibiting the least adsorbing ability.
4. Compute based on the isotherm the amount of carbon, granulated or powder, needed for this design.
5. Support through calculations that a minimum of three (3) minute contact time will be realized and calculate the theoretical breakthrough time based on actual through-put and specify the time schedule for carbon bed replacement.
6. Denote sampling locations, before and after all adsorbers, and water sampling schedule.
7. Provide a system flow meter or totalizer.

Design Criteria for an Air Stripping System

1. Submit original sampling data denoting contaminant (s) to be removed.
2. Your removal design must be based on the contaminant most difficult to be stripped.
3. Specify design features of the unit such as packing type and height, tower diameter and total height, liquid to gas ratio relative to Henry's Law, liquid redistributors.
4. Provide pressure drop across the packing bed.
5. Provide fan and pump specifications.
6. Illustrate water distribution removal system components.

NOTE: Air stripping columns require a separate Permit to Construct and a Certificate to Operate a Source of Air Contamination pursuant to Chapter 873, Article XIII, Sections 873.1303.1 and 873.1306.1 of the Laws of Westchester County. Filing for the air permits must be concurrent with the Water Supply Submission.

**ISSUANCE OF COMPLETED WORKS APPROVAL
FOR THE REMOVAL OR ORGANICS
FROM A PUBLIC WATER WELL SYSTEM**

Description: Prior to the activation of a newly constructed or of a modified existing public water well system, approval must be secured from the Westchester County Department of Health.

Applicable Codes: Part 5, Subpart 5-1 Section 5-1.22 of the New York State Sanitary Code and Chapter 873, Article VII, Section 873.707.5 of the Laws of Westchester County.

Fees: Chapter 873, Article XXI of the Laws of Westchester County.

Submittal: The submittal shall be filed by a licensed and registered Professional Engineer in the State of New York and forwarded to the Westchester County Department of Health, 145 Huguenot Street, 7th Floor, New Rochelle, NY 10801, Attention: Project Reviewer. When requesting Approval of Works pursuant to the above provisions, the following list serves as the minimum requirements:

1. Following disinfection in accordance with AWWA Standard C651 for the installation of organic removal system, submit appropriate test results for bacteriological analyses (E-Coli, HPC) and volatile organic chemicals (EPA Method #524 + MTBE) to insure proper disinfection and organic removal operation of the system.
2. A minimum of two (2) sets if “As-Built” plans (1) set being retained by the Department) bearing the original signature and seal of the construction supervising Professional Engineer licensed and registered in the State of New York. This plan must reflect any changes from the original approved plan by “Bubbling” these changes. Note all deviation from the original plan approval must have received approval from the Department.
3. That the construction supervising Professional Engineer licensed and registered in the State of New York provides a letter bearing the professional’s original seal and signature which will be forwarded with the “As-Built” plans. This Certification Letter shall provide a statement that the undersigned has supervised or witnessed construction, and that there are no construction changes from the original Departmental approval. In the event that construction changes do exist and received prior Departmental approval, this letter must reflect such changes.