NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WATER SYSTEM ENGINEERING
TECHNICAL REVIEW FORM

PACKED COLUMN AERATION
(N.J.A.C. 7:10-11.15(g))

_____ Water Purveyor _____ PWSID# _____ Municipality

Construction Material: ☐ Aluminum ☐ Fiberglass ☐ Stainless Steel ☐ Other:

Column Diameter: _____
Column Height: _____
Packing Height: _____

Water Flow Rate: _____
Liquid Loading Rate: _____
Air Flow Rate: _____
Air to Water Ratio: _____

Packing Type: _____

Packing Size: _____ Source of Contaminant (if known): _____

Sources to Be Served:

Well No.	Capacity (gpm)

Actual or Anticipated Conditions:*

Contaminant	Level Found (ppb)	Design Level (ppb)

	YES	NO	N/A
1. Is the column designed to remove contaminants from twice the maximum level found to below the MCL? (N.J.A.C. 7:10-11.15(g)1)	☐	☐	☐
2. Is the removal efficiency at least 95%?(N.J.A.C. 7:10-11.15(g)1)	☐	☐	☐
3. Are means provided to prevent hydraulic flooding of the column? (N.J.A.C. 7:10-11.15(g)2) See description of means in Engineer's Report Page # _____	☐	☐	☐
4. Is a moisture barrier (demister) provided? (N.J.A.C. 7:10-11.15(g)13)	☐	☐	☐
5. Is the column designed to prevent scaling? (N.J.A.C. 7:10-11.15(g)3)	☐	☐	☐
6. Is vapor phase treatment provided, if required? (N.J.A.C. 7:10-11.15(g)4) Air Pollution Permit # _____	☐	☐	☐
7. Is a suitable packing support tray provided? (N.J.A.C. 7:10-11.15(g)5)	☐	☐	☐

*** Engineer's Report to address trends in contaminants.**

	YES	NO	N/A
8. Are wall wipers or redistributors provided at a minimum of 10 foot intervals to prevent short-circuiting? (N.J.A.C. 7:10-11.15(g)6)	☐	☐	☐
9. Are means provided to drain the column riser pipe? (N.J.A.C. 7:10-11.15(g)8)	☐	☐	☐
10. Are pre and post column water sampling taps provided? (N.J.A.C. 7:10-11.15(g)9)	☐	☐	☐
11. Are means provided to allow for the periodic addition of chlorine for pre-disinfection or of another oxidant or acid for cleaning the medium? (N.J.A.C. 7:10-11.15(g)10)	☐	☐	☐
12. Is the air intake located so as to avoid recirculation of the gas phase discharge from the top of the column? (N.J.A.C. 7:10-11.15(g)11)	☐	☐	☐
13. Are a protective screen of a minimum 24 mesh and air particulate filters on the air intakes provided? (N.J.A.C. 7:10-11.15(g)12)	☐	☐	☐
14. Where multiple sources are being treated, is a back-up blower provided? (N.J.A.C. 7:10-11.15(g)14)	☐	☐	☐

Clearwell

1. Is the facility designed, located, and graded to be secure against uplift and entry of underground and surface contamination? (N.J.A.C. 7:10-11.11(e))	☐	☐	☐
1. Are any sanitary sewer lines located within 100 feet of the facility?	☐	☐	☐
If so, is the sewer line constructed of steel, reinforced concrete, cast or ductile iron or other suitable material and has the line been tested for water tightness? (N.J.A.C. 7:10-11.11(e)2)	☐	☐	☐
2. Are any sanitary sewer manholes or lateral connections located within 100 feet of the facility? (N.J.A.C. 7:10-11.11)	☐	☐	☐
3. Are storage tanks located in an area with a high water table equipped with a double containment system that includes leak detection equipment? (N.J.A.C. 7:10-11.11(e)4)	☐	☐	☐

***Submit appropriate engineering plans, specifications, reports, etc. to substantiate your answers. ***

I hereby certify that answers provided herein are accurate and reflective of the project being considered for approval.

_____ _____ _____

Signature of Engineer Date N.J.P.E. #

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_____

Type or Print Name of Engineering Firm

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