



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

**CHEMICAL HANDLING AND FEEDING
(N.J.A.C. 7:10-11.12)**

Water Purveyor

PWSID#

Municipality

Provide the following information for each chemical feed:
(Attach additional copies of this page as necessary).

Type of Chemical Feed ¹				
Specific Chemical Used				
Number Of Pumps ²				
Pump Make and Model Number				
Type of Pump ³				
Pump Capacity (gph)				
Treatment Plant Capacity (MGD)				
Chemical Dosage (pounds per day)				
Chemical Dosage (gallons per day)				
Initial Concentration* (parts per million)				
Final Concentration (parts per million)				
Method of Pump Control ⁴				
Purpose of Treatment				

1 – Indicate the type of chemical feed (i.e. lime, prechlorination, caustic soda, etc.)
 2 – For disinfection chemical feed pumps they must have the capacity to disinfect all water with one unit out of use
 3 – Indicate the type of chemical feed pump (i.e. diaphragm, volumetric, gravimetric, solution, etc.)
 4 – Indicate how the chemical feed pumps are controlled (i.e. flow pacing, residual pacing, etc.)

*** See supporting calculations on Page _____ of Engineer’s Report**

General Information

	YES	NO	N/A
1. For those chemical feeds in treatment facilities which treat multiple sources or whose capacity exceeds 20% of the system capacity, are a minimum of 2 chemical feed pumps provided? (N.J.A.C. 7:10-11.12(a)1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Is the variation in the accuracy of the feed pump less than 5% of the intended dosage? (N.J.A.C. 7:10-11.12(a)2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Are there means provided to accurately measure the amounts of chemical feed? (N.J.A.C. 7:10-11.12(a)4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Are the chemical feed lines looped to a level higher than the highest elevation of the chemical storage tank? (N.J.A.C. 7:10-11.12(a)5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Is each chemical feed protected via an anti siphon device? (N.J.A.C. 7:10-11.12(a)5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Are the feed lines equipped with clean out connections and accessible for repair? (N.J.A.C. 7:10-11.12(d))	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Are the feed lines protected against damage and freezing? (N.J.A.C. 7:10-11.12(d))	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Are the feed lines corrosion resistant? (N.J.A.C. 7:10-11.12(d))	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9. Are the feed lines as short as possible and sloped to permit drainage? (N.J.A.C. 7:10-11.12(d))	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10. Is each chemical feed pump electrically interconnected with the well or Service pump? (N.J.A.C. 7:10-11.12(a)6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Chemical Storage Tank

1. Is a minimum of 30 days storage provided for each chemical? (N.J.A.C. 7:10-11.12(a)7)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Is the capacity of any day tank sufficient to provide at least 8 hours worth of chemical storage at normal operating feed rates? (N.J.A.C. 7:10-11.12(b)3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Are means provided to allow for adequate agitation to keep the strength of the chemical solution uniform throughout? (N.J.A.C. 7:10-11.12(b)1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Is water which is used for make-up or dilution of chemical feeds introduced through an air gap or other approved method to prevent back siphonage? (N.J.A.C. 7:10-11.12(b)2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

YES NO N/A

- 3. Do any direct connections between a chemical storage tank drain and a sanitary sewer line exist? (N.J.A.C. 7:10-11.12(b)4) YES NO N/A
- 4. Are all waste liquids or sludge from chemical solution tanks disposed of in accordance with applicable State and Federal Laws and Regulations? (N.J.A.C. 7:10-11.12(b)5) YES NO N/A

Dry Feeders: Indicate the type of feeder: Volumetric Gravimetric

- 1. Are the feeder completely enclosed and are adequate means of dust control provided? (N.J.A.C. 7:10-11.12(c)1) YES NO N/A
- 2. Does the solution pot provide effective solution or suspension of the chemical? (N.J.A.C. 7:10-11.12(c)2) YES NO N/A
- 3. Is water which is used for make-up introduced through an air gap or other approved method to prevent back siphonage? (N.J.A.C. 7:10-11.12(c)3) YES NO N/A

Safety Provisions

- 1. Are rubber or neoprene gloves and hand washing facilities provided? (N.J.A.C. 7:10-11.12(e)1) YES NO N/A
- 2. Is a safety shower in close proximity to the chemical handling location provided? (N.J.A.C. 7:10-11.12(e)2) YES NO N/A
- 3. Where dry powdered chemicals are handled, are National Institute for Occupational Safety and Health (NIOSH) approved dust respirators provided? (N.J.A.C. 7:10-11.12(e)1) YES NO N/A
- 4. Is a copy of the manufacturer's material safety data sheet conspicuously posted at each location where chemicals are handled? (N.J.A.C. 7:10-11.12(e)3) YES NO N/A
- 5. Do chemical storage tanks areas include secondary containment? YES NO N/A

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
Professional Engineer's Embossed Seal

_____ Date

_____ N.J.P.E. #

Type or Print Name of Engineering Firm

