COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENERGY & ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NORTHEAST REGIONAL OFFICE
205B Lowell Street, Wilmington, MA 01887 • (978) 694-3200

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Secretary

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Commissioner

May 7, 2007

Donald Millette
Wayland Water Department
41 Cochituate Road
Wayland, MA 01778

Re: City/Town: Wayland
PWS Name: Wayland Water Department
PWS ID #: 3315000
Program: System Modifications
Action: Statement of technical Deficiency for
BRP WS 24: Activity No.: W113721

Dear Mr. Millette:

Please find attached the Departments review of plans and specifications for the Baldwin Pond Water Treatment Facility.

If you have any questions regarding this letter, please contact Hilary Jean at (978) 694-3229.

Sincerely,

Hilary Jean
Drinking Water Program
Northeast Regional Office

Sincerely,

James H. Persky
Acting Section Chief
Drinking Water Program
Northeast Regional Office

cc: DEP Drinking Water Program/WQA, 1 Winter Street, Boston MA (no attachment)
Peter A Quern, P.E., Tata and Howard Inc., 125 Turnpike Rd., Westborough MA 01581

File name: Y:\DWP Archive\NERO\ Wayland-3315000-System Modifications-2007-04-7

The Department has completed its Technical Review of the permit application listed above and determined that, based on information presently in the record, the permit will either be denied or conditions imposed that would significantly modify or restrict operation of the project or activity as proposed.

Additional information may satisfy the application's current deficiencies. The supplemental material required by the Department is listed below. In accordance with 310 CMR 4.00, you have 30 days from the receipt of this letter to submit the additional information. However the Department requests that you submit the information as quickly as possible to insure completion of the review in a timely manner. If you fail to submit the additional information within the timeframe above, the Department will issue a final decision that your application is deemed withdrawn, and you must reapply if you still wish to seek a permit.

The Department may, at its option, agree to a written request for an extension of the time allowed to submit the additional information, if the request is received within the time specified above.

Should the application, based on submittal of the additional information still be deemed inadequate, the Department may request additional information during the course of the supplemental Technical Review in accordance with 310 CMR 4.04 (2)(b) 3.b.

Further, you may within 45 days elect in writing to proceed on the application and supporting materials as they presently stand. If you elect to proceed in this manner you may not modify the application and supporting materials in any way. Following the Department's receipt of the request, a decision will be issued to grant or deny the permit within 45 days, subject to any adjustment in the schedule according to 310 CMR 4.04(2)(d)2. or 4.04(2)(d)3.a.

Additional information required is as follows:

1. Provide secondary containment for the duplex ejector pumps.

2. The Department would prefer to use on-site waste water disposal in order to retain water resources in the watershed. The actual method of disposal must be decided locally.

3. Specify that all float switches must not contain mercury.

4. Provide secondary containment/drip pan for generator fluids.

5. Specify that hydrants installed within 10 feet of storm or sanitary sewer lines or in areas with evidence of high ground water have drains plugged and so indicated on as-built drawings.

6. All wells being improved must conform to the Department's design standards for Upper Terminal Construction (Chapter 4.13.3)

1) Permanent Casing for all ground water sources shall project at least... 18 inches above the final ground surface. ...
3) The top of the well casing, at sites subject to flooding, shall terminate at least 2 feet above the 100-year flood elevation.

7. By placing wells in vaults, Wayland is creating confined spaces that are difficult to enter. In order to provide ease and safety of entrances and egresses we suggest for your consideration that above grade pump houses be constructed.

8. Show that ballast is provided to keep lagoons and well pits from floating during a flood situation and when the lagoon is empty.

9. The fluoride feed pump must not be activated unless the water pump is also activated. A second device, such as a flow switch, must engage in order to activate the fluoride feed pump. If there is a manual control for activating the fluoride feed pump it must be sprung to the "off" position.

10. We suggest that Wayland include an inline fluoride analyzer in the design.

11. Laboratory wastes must not be disposed of in a septic system. If the final plans call for a tight tank, provide plans and specifications that conform to the Department's Industrial Holding Tank and Container Construction, Operation and Record keeping Requirements, 314 CMR 18.00.

12. Any coatings or form release agents applied to the pre-cast or cast in place concrete must not impart impurities to the well. In view of the fact that some of the subsurface concrete structures are within the Zone I of the well we suggest that the coatings and form release agents be NSF approved for contact with potable water.

13. We suggest that the pH and chlorine residual monitors be made capable of shutting off the well pumps if the water quality parameters are out of range.

14. Discharge to the lagoon must be air-gapped. This must be constructed in a manner that does not make that discharge line susceptible to freezing.

15. Please specify if the cooling water for the ozone generator is cooling a liquid and if so provide an RP device for protect against backsiphonage.

16. If the sprinkler system has a connection for the fire department to pump water into it then an RP device must be used to separate that system from the drinking water supply.

17. We suggest placing an ambient air ozone detector in the pipe gallery.

18. Please define what alarms will be transmitted off site to a station that is monitored 24/7.

19. Will it be necessary to clean the ozone tank if PACL is utilized? If so, how will that be accomplished?

20. Provide piping diagrams for the Koch Treatment unit. Additionally identify at what point membrane filtered water and other water or chemical lines are connected where the separation is by a valve, gasket or "O" ring. If such points exist, these could be considered cross connections where impurities could bypass the membrane filter.

21. Specify color-coding and labeling of piping in conformance with the Department's guidelines Chapter 2.

22. Are the plans and specifications for the ozone system in compliance with all aspect of the Department's guidelines Chapter 5.3? Please discuss any excursions.

23. The Department does not consider a vacuum breaker to be sufficient protection of the water system when the water pipes are connected to a floor drain. The water piping must be separated from this connection by an air gap or an RP device.

24. Please confirm that the wells have been properly sealed in accordance with the Guidelines, Chapter 4.

25. Has Wayland obtained all applicable permits to the discharge of water from the lagoon?

26. What provision is made to clean the lagoon?

27. Please itemize any changes to the plans and specification when the documents are resubmitted for review and approval.