

BOARD OF HEALTH, TOWN OF NORTH ANDOVER  
MINIMUM REQUIREMENTS FOR  
THE DESIGN, CONSTRUCTION AND MAINTENANCE OF ONSITE  
WASTEWATER TREATMENT AND DISPOSAL SYSTEMS

REVISED 2009

**DRAFT**

(March 25, 2009)

## I. Introduction and Legal Statements.

### AUTHORITY AND PURPOSE

The Board of Health of the Town of North Andover, Massachusetts, acting under the authority of the General Laws of the State of Massachusetts, Chapter 111, section 31, has made and adopted the following regulations in the interest of and for the preservation of the public health, in addition to all Laws of the Commonwealth of Massachusetts and Town of North Andover relating to Public Health.

It is the intention of these regulations to supplement Title 5 of the State Environmental Code, 310 CMR 15.000. These regulations are intended to amend or repeal certain Board of Health regulations adopted prior to revisions of Title 5; to re-organize existing regulations; and to create new regulations.

The North Andover Board of Health adopted these regulations because the unique conditions in North Andover require a more stringent standard than found in Title 5 (310 CMR 15.000).

These regulations were adopted after public hearings demonstrated that 310 CMR 15.000 et. seq. was not sufficient to protect the public health in the Town of North Andover. These regulations were adopted by majority vote at a public hearing on (date) and become effective immediately upon adoption.

**Severability:** If any paragraph, sentence, clause, phrase or word of this regulation is declared invalid for any reason whatsoever, that decision shall not affect any other portion of this regulation, which shall remain in full force and effect. To this end of the provisions of this regulation are declared severable.

ADOPTED  
Sept. 27, 1984

REVISED  
March 21, 1991; June 1997; xxx 2009

## TABLE OF CONTENTS – to be added

### II. Procedures and Operations for Use by the Property Owners and Onsite Wastewater Professionals in North Andover

#### **1. DISPOSAL SYSTEM INSTALLER'S PERMIT**

- 1.1 The initial application for certification shall include copies of licenses from other Massachusetts communities or 2 years experience working for a licensed septic system installer, (3) letters of reference, copies of vehicle registration, copies of heavy equipment operators license and proof of possession of at least \$100,000 of general liability insurance.
- 1.2 Initial certification to install or repair any individual sewage disposal system or component of said system will require a 75% score on a written and field examination, prepared by the North Andover Board of Health. The examination will test the applicant's knowledge of sections of Title 5 and these regulations which pertain to septic system construction. The examination will be scheduled within (30) days after receipt of a completed application.
- 1.3 If an individual receives below 75% on the written portion of the exam, but above 75% on the field portion, the Director will approve the issuance of a single disposal system installation permit. Extra oversight will accompany this installation. If satisfactory practices are observed by the Health Department, the Director may approve the certification of that individual at his or her discretion.
- 1.4 A Disposal Systems Installer's Permit shall rest with an individual, not with a company.
- 1.5 All licenses shall expire on December 31<sup>st</sup> of each year. A nonrefundable fee for annual permit shall be paid to the Town of North Andover pursuant to the current fee schedule.
- 1.6 The licensed installer shall be on-site at minimum for all scheduled construction inspections and specific construction points as detailed in the guidance document entitled "Installer Obligation Form" and shall maintain the construction permit and a copy of the approved plan on site at all times.

## **2. SOIL TESTING PROCEDURES**

- 2.1 Soil testing shall be allowed throughout the year.
- 2.2 After review of a completed soil test application, the Health Department will contact the applicant to set up a soil testing date.
- 2.3 The Health Department reserves the right to adjust estimated seasonal high groundwater elevation, as it deems necessary.
- 2.4 Soil evaluation results shall be submitted by the soil evaluator on current DEP approved forms 11 and 12.
- 2.5 If soil testing is conducted on a vacant lot all deep observation test pits and percolation tests shall be located on a scaled site plan. Tie distances from permanent monuments or structures to the test pits and percolation tests shall be provided. If no permanent monuments or structures are within 200 feet of the testing area then the test pits and percolations tests shall be survey located in reference to the property lines.

## **3. DESIGN REQUIREMENTS**

- 3.1 (3) sets of plans shall bear a wet stamp and original signature of the septic system designer or (1) set of plans bearing a wet stamp and an electronic file of the plans and be submitted to the Health Department for review. If a professional engineer stamps a design plan the engineering discipline must be provided.
- 3.2 **DESIGN PLAN CONTENTS**  
Design plans and specifications must include the following:
  - a. Names of abutters from recent tax map
  - b. Lot area and dimensions
  - c. A scaled profile of the disposal system no less than 1"=2' vertical and 1"=20' horizontal
  - d. All piping shall be a minimum of schedule 40 PVC
  - e. A cross section of the leaching facility
  - f. Existing and proposed contours at a minimum spacing of two foot contour intervals
  - g. Name and address of the record owner and applicant if different from the owner
  - h. Name and address of the designer
  - i. A statement identifying whether the property either is, or is not, within the designated Watershed of Lake Cochichewick.
  - j. Show all streams, open and subsurface drains, interceptor drains, wetlands, wells, stone walls, etc. within 150 feet of the disposal system, whether on the lot or on adjoining lots. (In the Lake Cochichewick Watershed this distance shall be 400 feet.)

- k. If appropriate a disclaimer stating, “No wetland or watercourse exists within 100 feet from the leaching facility or reserve area”
- l. Location and elevation of any foundation drain to serve an existing or proposed dwelling or building
- m. Location, elevation and detail of interceptor drains (where applicable) or a note indicating the presence but the location and depth was not verified
- n. A depiction of the distances from all tanks, primary and reserve areas to the following:
  - subsurface, interceptor and foundation drains
  - catch basins
  - property lines
  - dwellings or other structures
  - private water supply or irrigation wells
  - watercourses or wetlands
- o. A note or chart listing all Title 5 variances, local regulation variances or local upgrade approvals being sought in conjunction the septic design plan
- p. The designer shall specify all components of the proposed system. If the specific components are not used in the installation then the designer shall approve any changes in writing and submit to the Health Department for review.
- q. Monolithic tanks are required for tanks 2500 gallons or smaller
- r. All concrete distribution boxes must be H-20
- s. Design plans shall indicate the location of the existing system to be abandoned
- t. Design plans shall note when an operation and maintenance contract is required in accordance with Title 5, 310 CMR 15.000
- u. Design plans shall bear the following signed statement:

I certify the locations, elevations and ties shown on this plan result from an actual survey made on the ground.

\_\_\_\_\_  
Signature of Designer

\_\_\_\_\_  
Date

- 3.3 Any design plan that proposes a treatment device shall include the DEP approval letter for the particular technology with the application.
- 3.4 Design plans for a tight tank shall require approval of the Board of Health at a public hearing.
- 3.5 If a local variance to these regulations, local upgrade approval and/or Title variance can be met with the incorporation of a treatment device then the design plan can be approved by the Health Department and does not require a hearing before the Board of Health unless otherwise required.
- 3.6 Per the current fee schedule, the fee for the septic system plan review shall be paid upon initial submission and will cover the first revision if applicable. Each subsequent revision will require a separate fee.

#### **4. SUBSURFACE DISPOSAL SYSTEM CONSTRUCTION**

- 4.1 A Disposal System Construction Permit shall not be issued until all necessary documentation has been submitted to the Health Department, including any required maintenance agreements, easements, deed restrictions or approval from the Department of Environmental Protection.
- 4.2 Installation of septic systems shall take place between March 1st and December 1st; weather permitting, with all systems completed by December 1st of each year. All applications for septic installations in any given year shall be made prior to November 15th of that year.
- 4.3 For new construction, a foundation as-built plan and floor plans of the structure must be submitted prior to issuance of a Disposal System Construction Permit. This is required to review the location and elevation of the foundation and to confirm its placement and leaching capacity with the approved septic system design plan.
- 4.4 A pre-construction meeting is required to occur with the Health Director or Health Inspector for each septic system construction project to review design plans, conditions of approval, and unique conditions specific to the site.
- 4.5 All 2-piece concrete tanks shall be vacuum tested on-site by the manufacturer. Certification that the tank as watertight shall be supplied by the manufacturer to the Health Department once testing has been completed. Tanks constructed of fiberglass, plastic or which include a treatment device are excluded from the vacuum testing requirement.
- 4.6 The leaching facility will be required to be staked out by the designer if there are no permanent structures within 50 feet of the proposed area or as otherwise required.
- 4.7 A building permit will be required for all retaining walls and shall be inspected by the Building Inspector. ( Tentative: Item to be discussed with Bldg Dept.)
- 4.8 Each disposal system will require at least (4) inspections:
1. Bottom of tank inspection to ensure a level 6 inch stone base
  2. Bottom of disposal area inspection to ensure proper removal of unsuitable soil
  3. Final inspection of installed system to determine proper components, locations, elevations and operation
  4. Final grading inspection; incl. observation of loam and seeding

Additional inspections may be required, if unique site conditions or system complexity requires additional attention.

- 4.9 The Health Department may require the sand fill used during installation of a

system to be tested to ensure the sand meets the specification of 310 CMR 15.255. If a sieve analysis of the sand is required the installer is responsible for all costs associated with the testing. The Health Department will take the sand sample and arrange for the sand to be tested at a designated laboratory. The installer is required to pay for the cost of the sieve analysis prior to the issuance of the Certificate of Compliance.

- 4.10 All required inspections must be requested by the installer and will be conducted within a reasonable time per the availability of the Health Department Staff.
- 4.11 Prior to scheduling the final inspection, the designer shall conduct an inspection to ensure the system has been installed in accordance with local and state regulations and the approved design plan. If the installed system is in compliance the designer shall notify the Health Department that the inspection has been completed. The licensed installer shall schedule the final inspection with a lead time of 3 business days.

## **5. POST CONSTRUCTION**

- 5.1 The septic system designer shall submit an as-built plan and a signed DEP approved Form 3 or sign the original Certificate of Compliance within (30) days of completion of the final inspection by the Health Department. If more than two (2) as-built plans are outstanding, a thirty day notice will be sent indicating no further septic system design plans will be accepted for review until all outstanding as-built plans and/or Certificates of Compliance have been submitted. (forms may be changed)
- 5.2 The septic system installer shall complete final grading or other construction and sign the required Certificate of Compliance within 30 days of completion of the final inspection by the Health Department. If more than two (2) Certificates of Compliance are outstanding, a thirty day notice will be sent indicating no further Disposal Systems Construction Permits will be issued until all outstanding Certificates of Compliance have been submitted.
- 5.3 As-built plans shall be prepared in accordance with 310 CMR 15.021(3), provide ties from a permanent structure to all system components and depict the finish grade elevations of the leaching facility in the form of contour lines.
- 5.4 Loam and seed must be installed prior to the issuance of the Certificate of Compliance or a letter from the owner must be submitted explaining the reason the loam and seed cannot be installed.

## **6. MAINTENANCE REQUIREMENTS**

- 6.1 Systems incorporating pressure distribution of the effluent shall be maintained for the life of the system. A valid operation and maintenance contract with a minimum

length of two years must be on file at the Health Department and must be renewed at least sixty (60) days prior to expiration. Maintenance shall be performed by a Class 2 Wastewater Treatment Plant Operator or a licensed Disposal Systems Installer.

- 6.2 Systems incorporating an alternative treatment device shall be maintained for the life of the system. A valid operation and maintenance contract with a minimum length of two years must be on file at the Health Department and must be renewed at least sixty (60) days prior to expiration. Maintenance shall be performed by a Class 2 Wastewater Treatment Plant Operator.
- 6.3 Tight tank systems shall be maintained for the life of the system. A valid operation and maintenance contract with a minimum length of two years must be on file at the Health Department and must be renewed at least sixty (60) days prior to expiration. Maintenance shall be performed by a North Andover licensed septage hauler.
- 6.4 All maintenance reports shall be submitted to the Health Department within (30) days of the inspection.

## **7. SEPTAGE HAULER LICENSE**

- 7.1 A copy of vehicle registration and proof of possession of at least \$100,000 of general liability insurance shall be required for issuance of annual license for each vehicle.
- 7.2 Septage pumping records shall be submitted monthly to the Health Department.
- 7.3 An annual fee shall be charged for each truck operating within the Town pursuant to the current fee schedule.
- 7.4 Vehicles shall have company name and gallons printed on vehicle. Vehicle and equipment must be in good condition, free from leaks, safe and secure. Inspections of new or additional trucks shall take place prior to initial permit issuance of each vehicle and annual periodic inspections will be conducted on renewals per Health Department discretion.
- 7.5 Transfer of septage from one truck or tanker to another for transport except in cases of emergency shall be prohibited.
- 7.6 Pumping records shall be submitted on form, t5form4 - System Pumping Record

## **8. VARIANCES**

- 8.1 Variances to these local regulations shall be granted for seriously aggrieved parties by the Board of Health when, in its opinion:

- a. The person requesting a variance has established that enforcement of the provision of these regulations from which a variance is sought would be manifestly unjust, considering all the relevant facts and circumstances of the individual case; and
  - b. The person requesting a variance has established that a level of public health and environmental protection, that is at least equivalent to that provided under these regulations, can be achieved without strict application of the provision of the regulation from which a variance is sought.
  - c. With regard to variances for new construction, enforcement of the provision from which a variance is sought must be shown to deprive the applicant of substantially all beneficial use of the subject property in order to be manifestly unjust.
- 8.2 Every request for a variance shall be made in writing on a variance request form and shall state the specific variance(s) sought and the reasons therefore. The request for variance must indicate the current property owner.
- 8.3 No variance request shall be heard except after the applicant has notified all abutters by certified mail at his own expense at least (10) days prior to the Board of Health meeting at which the variance request will be on the agenda. The notification shall state the specific variance(s) sought and the reasons therefore, shall indicate the date, place and time of the hearing, and shall indicate that the abutter may view the proposal at the Health Department during regular business hours.
- 8.4 No hearing will be scheduled unless the design plan or other information submitted has been reviewed and found to be technically complete and accurate.
- 8.5 Cancellation of a public hearing shall require re-notification of abutters as described in Section 8.3

## **9. TITLE 5 SYSTEM INSPECTORS**

- 9.1 Title 5 system inspectors certified by DEP shall be licensed by the Health Department to work in the town North Andover. Inspections performed by inspectors not licensed by the Health Department will be prohibited.
- 9.2 Application for licensing shall include a copy of DEP's Title 5 System Inspector certification.

## **10. TITLE 5 INSPECTIONS**

- 10.1 There shall be a fee for each Title 5 inspection submitted to the Health Department by a licensed system inspector. The amount of the fee shall be pursuant to the current fee schedule.
- 10.2 Cesspools and privies are deemed failed systems and shall be replaced with a system meeting these regulations and 310 CMR 15.000.
- 10.4 Any Title 5 inspection that identifies a tank or distribution box at an elevation of greater than 36 inches below grade, without an access riser, shall have a riser and cover installed within 9 inches to grade, by a North Andover licensed installer.
- 10.5 Any septic system that conditionally passes a Title 5 inspection due to a component failure, which has resulted in the leaching area not receiving usual effluent flow, is required to have a second inspection conducted (6) months after the date of the component repair. The inspection shall be conducted by a North Andover licensed Title 5 System Inspector and the report shall be submitted to the Health Department for review.

**TABLE 1 - SETBACK DISTANCE TABLE**

<b>Resources</b>	<b>Septic Tank, Pump Chamber, Treatment Unit, Tight Tank, Grease Trap (feet)</b>	<b>Soil Absorption System (feet)</b>
Deck on footings	5	10
Tributaries to Surface Water Supply	325	325
Watercourses or Wetland Resource Areas	75	100
Wetlands Bordering Surface Water Supply or Tributary (in watershed district)	150	150

- 1. The minimum distance of a building sewer from a private well shall be at least (50) feet.
- 2. No well, drain line or property line shall be constructed or placed within the distances specified in the above table from the component of an existing septic system.
- 3. All foundations shall be assumed to have a foundation drain unless otherwise stated on the design plan.
- 4. Wetlands and watercourse setbacks indicated in Title 5 and these regulations include those areas protected under North Andover, state and Federal regulations.

5. All private wells are assumed to be potential water supply wells.

**11. LICENSE REVOCATION**

- 11.1 The Board of Health may suspend or revoke any license which has been issued under this regulation.
- 11.2 If the Board believes there is cause for suspension or revocation of a license, it shall notify the licensee in writing of the matter. The written notice will provide the date, time and place of a public hearing in which the licensee will be requested to attend. The written notice will be mailed to the licensee at least (14) days before the public hearing.
- 11.3 The Board will shall render its decision in writing within (30) days of the public hearing and shall state the grounds for its decision. Any person aggrieved by any decision of the Board of Health may appeal to any court of competent jurisdiction for by the laws of the Commonwealth.

An advertised public hearing was held by the North Andover Board of Health on **DATE**. These regulations were adopted at a subsequent meeting on **DATE**, and are effective as of **DATE**.

BOARD OF HEALTH

\_\_\_\_\_  
, Chairman

\_\_\_\_\_  
Date

\_\_\_\_\_  
, Member

\_\_\_\_\_  
Date

\_\_\_\_\_  
, Member

\_\_\_\_\_  
Date