
Massachusetts Association of Onsite Wastewater Professionals

Protect
Educate
Promote

Assessment of Changes to Title 5

This document is being provided as a courtesy to regulatory officials and others to share our review of the changes which MassDEP instituted to Title 5 in January 2014. We hope this makes your involvement with implementing Title 5 a little easier.

This document was created with great attention to detail however is not an official interpretation of the regulation. Please always consult Title 5 or your DEP regional office if there are questions.

Much appreciation goes to Infiltrator Systems for providing support to this project.

Note: “AA” is an acronym used specifically in this report, and stands for “Approving Authority”

Existing System Inspection

- Creates 310 CMR 15.301(a) exemption from five-year inspection cycle for systems with total design flows greater than 10,000 gallons per day [15.301(6)].
- Limits approval and revocation of approval of inspectors to Department. Empowers agents authorized by the department to give exams and maintain a list of all approved inspectors.

Licensing and Continuing Education

- Soil Evaluators - creates new methodology of eligibility relating to academic experience (soil science credits)[15.017(2)(i)].

Site/Soil Evaluation

- creates new methodology of eligibility relating to academic experience (soil science credits)[15.017(2)(i)];
- change requirement from two deep holes to “at least one deep hole” for characterization of the soils [15.405(1)(k)].

Design and Plan Review – General

- definition of “Groundwater Quality Standards” deleted [15.002];
- “Velocity Zone or V-Zones”: deletes previous definition and creates new one [15.002];
- Tributary to Surface Water Supply: deletes sentence referencing publication titled “Designated Outstanding Resource Waters of Massachusetts 1990, dated July 1993” [15.002];
- adds variances for school systems (15.416) to authority of Department [15.003(2)];
- deletes use of M.G.L.c.21A, § 13 as authority for AA to enact more stringent regulations [15.003(3)];
- deletes 314 CMR 6.00 as authority to determine facility ownership; and deletes reference to Departmental advice and assistance [15.011(1)];
- excludes design of soil absorption system by agent of owner in repair applications [15.220(1)];
- Department removed from review of shared systems, leaving it to AAs [15.293].

Design and Plan Review – Conceptual

- rewords reference to SIC codes [15.004(4)];
- deletes 314 CMR 6.00 as reference for groundwater discharge permit relating to exemption from 310 CMR 15.214 nitrogen loading limitations [15.217(1)];
- excludes soil absorption system from emergency repair or replacement [15.353(2)];
- removes requirement that groundwater discharge permit meets 310 CMR 6.00 [15.405(3)].

Design and Plan Review – Details Regarding Components

- expands use of recirculating sand filters to include “equivalent alternative technology approved by the Department in accordance with 310 CMR 15.280 through 310 CMR 15.288” for enhanced nitrogen removal [15.202(2)];
- dosing chambers and pumps [15.231]:
 - o allows for a standby power unit in lieu of storage within the pump chamber (2);
 - o recommends providing some emergency storage capacity in dosing chambers even when providing emergency generator (2);

- limits effluent tee filter use to those products approved by the Department; deletes use of effluent tee filters approved by authorized agent (10);
 - requires the standby power to include a permanently installed on-site emergency generator that shall automatically switch on in the event of power failure (12);
- limits distribution box use to those products approved by the Department; deletes use of distribution boxes approved by authorized agent [15.232(2)(a)];
- removes allowance of siphon use as a component of a RSF or other approved technology [15.233];
- grants authority to AA to waive pressure doing requirements [15.254(2)(a)];
- specs for fill material adds more detail to #4 sieve requirements [15.255(3)];
- tight tanks [15.260]:
 - Deleted in its entirety. Removes Department from process, and establishes authority with AA throughout the section [(1)];
 - allows grandfathering of installation of a tight tank in velocity zone on a coastal beach, barrier beach, or dune, or in a regulatory floodway if it “replaces a tank in existence on the site as of March 31, 1995, that has been damaged or destroyed, and placement of the tank outside of the velocity zone or regulatory floodway, either horizontally or vertically, is not feasible” [15.260(7)].
- limits discharge of greywater into an alternative to a soil absorption system to only those alternative systems approved by the Department [15.262(4)];
- empowers AA to permit use of tight tank [15.405(3)].

Design and Plan Review – Details Regarding Flow

- removes recording/registration requirements which relate to Departmental approval [15.216(5)(a)(2)];
- grants AA authority to impose “other conditions: deemed appropriate [15.216(5)(a)(3)];
- deleted references to Departmental approval time lines [15.216(5)(b)];
- removes authority of authorized agent to review issues which relate to flow in alternative systems [15.283(4)];
- creates 310 CMR 15.301(a) exemption from five-year inspection cycle for systems with total design flows greater than 10,000 gallons per day [15.301(6)];
- Changes authority for issuance of variance for increased flow to existing system from Local AA and Department to Local AA or Department [15.4314(1)].

Alternative Systems

- Limits sale or installation of alternative systems to those approved by the Department [15.281(3)];
- allows agents authorized by the Department to review applications for approval of alternative systems [15.283(1)];
- removes authority of authorized agent to review issues which relate to flow [15.283(4)];
- removes authority of Department to allow use of provisionally approved systems in special condition circumstances [15.286(4)];
- General Conditions for Use of Alternative Systems [15.287]:
 - allows for agent authorized by the Department to accept operation, maintenance, monitoring and testing plans (2);

- removes authority for agent approved by the Department to approve monitoring and sampling plan (2);
- empowers agent authorized by the Department to perform inspection and sampling (3);
- adds time of transfer requirements to property owner (5);
- (6) allows agent authorized by the Department to accept owner's determination of need for certified alternative system operator (6);
- removes authority from agent authorized by the Department to approve form of Deed Notice (10).

Post-Construction/Inspection

- allows electronic registration of the system prior to signing the Certificate of Compliance (though there is no electronic system yet in place) [15.021(3)];
- Facility owner reporting requirements relating to AA-issued RSF approvals (which are no longer allowed) have been deleted [15.202(5)];
- registration of system must be provided to AA by designer [15.021(3)];
- requires repair, replacement, or upgrade if any criteria or condition in inspection form is met [15.300];
- creates 310 CMR 15.301(a) exemption from five-year inspection cycle for systems with total design flows greater than 10,000 gallons per day [15.301(6)];
- limits approval and revocation of approval of inspectors to Department. Empowers agents authorized by the department to give exams and maintain a list of all approved inspectors [15.340].

Operation & Maintenance

- requires inspection of pumps, alarms, and other equipment once every three months for any system serving a facility with a design flow of 2,000 gallons per day or greater, and annually for any system serving a facility with a design flow of less than 2,000 gallons per day. Requires the system owner to submit the results of such inspections to the AA annually by January 31st of each year for the previous calendar year [15.351(2)].

Permits, Variances & Enforcement

- new violations (10-15) have been added:
 - (11) failure to submit a soil evaluation to the AA;
 - (12) failure to submit an inspection form to the AA;
 - (13) Making any false, inaccurate, incomplete or misleading statement in any submission;
 - (14) Making any false, inaccurate, incomplete or misleading statement in any record, report, plan, file, log, register, or other document required to be kept; or
 - (15) failure to provide any information required by AA;
- removes Department from variance process for new construction or for increase in flow [15.402(2);
- Process for Seeking Variance from Local AA [15.411]:
 - requires written statement that variance request demonstrates compliance with 310 CMR 15.410 (1);
 - requires applicant's notification to abutters to include a statement demonstrating compliance with 310 CMR 15.410 (2);

- removes Departmental review of request for a variance for residential facility with four units or less (4);
- requires AA to submit copies of 15.411(5) variances to Department within 30 days of issuance (5).

Agents Authorized by the Department

- An “agent authorized by the Department” is no longer defined as an “approving authority” [15.002 – Definitions];
- “Authorized Agent” has a new definition. “One authorized in writing by Department to represent agency [15.002 – Definitions].

There are a number of modifications which include elimination of the authority of “an agent authorized by the Department”. These include:

- deletes authority of agent authorized by the Department to approve alternative systems [15.003(2)(a)];
- removes authority of “authorized agent” to approve RSF in accordance with 310 CMR 15.280 through 310 CMR 15.288 [15.202(1)];
- limits distribution box use to those products approved by the Department; deletes use of distribution boxes approved by authorized agent [15.232(2)(a)];
- limits discharge of greywater into an alternative to a soil absorption system to only those alternative systems approved by the Department; deletes discharge of greywater into an alternative to a soil absorption system approved by authorized agent [15.262(4)].
- Limits sale or installation of alternative systems to those approved by the Department; deletes sale or installation of alternative systems to those approved by an authorized agent [15.281(3)];
- removes authority of authorized agent to review issues which relate to flow [15.283(4)];
- removes authority of “agent authorized by the Department” in Remedial Use, Piloting, and Provisional Approvals of Alternative Systems [15.284; 285; & 286];
- removes authority for agent approved by the Department to approve monitoring and sampling plan in General Conditions for Use of Alternative Systems [15.287(2)];
- removes authority from agent authorized by the Department to approve form of Deed Notice [15.287(10)].

There are also a number of modifications which include granting new authority to “an agent authorized by the Department”. These include:

- empowers agent authorized by the Department to maintain list of approved Soil Evaluators and write denial letters [15.017(3)];
- empowers agent authorized by the Department to accept applications for renewal of Soil Evaluators [15.017(7)];
- empowers agent authorized by the department to accept electronic submissions of system registration [15.021(3)];
- Allows agents authorized by the Department to review applications for approval of alternative systems [15.283(1)];
- allows for agent authorized by the Department to accept operation, maintenance, monitoring and testing plans with use of alternative systems; though same must be approved by the department [15.287(2)];

- empowers agent approved by the Department to accept (though not approve) operation, maintenance, monitoring and sampling plans with alternative systems [15.287(2)];
- empowers agent authorized by the Department to perform inspection and sampling with alternative systems [15.287(3)];
- allows agent authorized by the Department to accept owner's determination of need for certified alternative system operator [15.287(6)].

Approving Authorities

- Definition of "Approving Authority" no longer includes reference to "an agent authorized by the Department".

There are a number of modifications which include granting new authority, or removing Departmental authority – thereby granting full authority - to Approving Authorities. These include:

- removes requirement that Department approve shared systems [15.003(2)(b)];
- removes requirement that Department approve variances issued in accordance with 310 CMR 15.412 (excepting 412(4) and 414, for which Departmental review is required) [15.003(2)(c)];
- authority to determine ownership and/or control given to AA [15.011(2)];
- determines AA as recipient of Soil Evaluator certified report [15.018(2)];
- registration of system must be provided to AA by designer [15.021(3)];
- removes Departmental approval of Facility Aggregation Plan and grants authority to approve to AA [15.216(5)(a)];
- grants AA authority to impose "other conditions: deemed appropriate [15.216(3)];
- Shifts authority for approval of "other uses of sewage pumps prior to the septic tank" to AA from Department [15.229(3)];
- grants authority to AA to waive pressure doing requirements [15.254(2)(a)];
- Tight tanks: Removes Department from process, and establishes authority with AA throughout the section [15.260];
- eliminates MassDEP review of shared systems, leaving it entirely to AAs [15.293];
- requires the system owner to submit the results of such inspections to the AA annually by January 31st of each year for the previous calendar year [15.351(2)];
- removes Department from variance process for new construction or for increase in flow [15.402(2)];
- empowers AA to permit use of tight tank [15.405(3)(h)];
- changes authority for variance for increased flow from Local AA and Department to Local AA or Department [15.414(1)].

15.002 Definitions:

- *Approving Authority*: Deletes reference to “or an agent authorized by the Department”;
- *“Authorized Agent”*: New definition. One authorized in writing by Department to represent agency;
- *“Groundwater Quality Standards”*: definition deleted;
- *Tributary to Surface Water Supply*: deletes sentence referencing publication titled “Designated Outstanding Resource Waters of Massachusetts 1990, dated July 1993”;
- *“Velocity Zone or V-Zones”*: deletes previous definition and creates new one.

15.003 Coordination with Local Authorities

- (2) adds variances for school systems (15.416) to authority of Department;
- (2)(a): *deletes authority of agent authorized by the Department to approve alternative systems*;
- (2)(b): *deleted. Shared systems: removes requirement that Department approve shared systems*;
- (2)(c): *deleted. Variances: removes requirement that Department approve variances issued in accordance with 310 CMR 15.412 (excepting 412(4) and 414, for which Departmental review is required)*;
- (3) Deletes use of M.G.L.c.21A, § 13 as authority for AA to enact more stringent regulations.

15.004 Applicability

- (4) *Rewords reference to SIC codes.*

15.011 Criteria to Assess Whether Facilities are in Separate Ownership or Control

- (1) Deletes 314 CMR 6.00 as authority to determine facility ownership; and deletes reference to Departmental advice and assistance;
- (2) *Authority to determine ownership and/or control given to AA.*

15.017 Approval of Soil Evaluators

- (2)(i) *creates new methodology of eligibility relating to academic experience (soil science credits)*;
- (3) *empowers agent authorized by the Department to maintain list of approved Soil Evaluators and write denial letters*;
- (7) *empowers agent authorized by the Department to accept applications for renewal.*

15.018(2) Function of Soil Evaluators

- (2) *Determines AA as recipient of Soil Evaluator certified report.*

15.021 Certificates of Compliance

- (3) Calls for electronic registration of the system prior to signing the Certificate of Compliance. Though there is no electronic system yet in place (!), according to DEP this provision:
“will allow such a system to be created, which will provide the means to track statewide installation and upgrades of septic systems. MassDEP believes this information will be very valuable in evaluating areas where water quality may be affected by Title 5 systems. The agency plans to establish such a system, and will provide ample time for outreach, distribute information and make technical assistance available to facilitate the transition to electronic registration. “

15.024 Violations of 310 CMR 15.000:

- new violations (10-15) have been added:
 - (11) failure to submit a soil evaluation to the AA;

- (12) failure to submit an inspection form to the AA;
- (13) Making any false, inaccurate, incomplete or misleading statement in any submission;
- (14) Making any false, inaccurate, incomplete or misleading statement in any record, report, plan, file, log, register, or other document required to be kept; or
- (15) failure to provide any information required by AA.

15.202 Use of Recirculating Sand Filters

- (1) removes authority of “authorized agent” to approve RSF in accordance with 310 CMR 15.280 through 310 CMR 15.288;
- (2) expands use of recirculating sand filters to include “equivalent alternative technology approved by the Department in accordance with 310 CMR 15.280 through 310 CMR 15.288” for enhanced nitrogen removal;
- (5) Facility owner reporting requirements relating to AA-issued RSF approvals (which are no longer allowed) have been deleted.

15.216 Aggregate Determinations of Flows and Nitrogen Loading

- (5) Facility Aggregation Plans:
 - (a) Removes Departmental approval;
 - (a)(2) removes recording/registration requirements which relate to Departmental approval.
 - (3) grants AA authority to impose “other conditions: deemed appropriate
 - (3)(b) Deleted. Referred to Departmental approval time lines.

15.217: Systems with Enhanced Nitrogen Removal

- (1) deletes 314 CMR 6.00 as reference for groundwater discharge permit relating to exemption from 310 CMR 15.214 nitrogen loading limitations.

15.220: Preparation of Plans and Specifications

- (1) excludes design of soil absorption system by agent of owner in repair applications.

15.021: Certificates of Compliance

- (3) Registration of system must be provided to AA by designer.

15.229 Pumping to Septic Tanks

- (3) Shifts authority for approval of “other uses of sewage pumps prior to the septic tank” to AA from Department.

15.231 Dosing Chambers and Pumps:

- (2) allows for a standby power unit in lieu of storage within the pump chamber;
- (2) recommends providing some emergency storage capacity in dosing chambers even when providing emergency generator;
- (10) limits effluent tee filter use to those products approved by the Department; deletes use of effluent tee filters approved by authorized agent;
- (12) requires the standby power to include a permanently installed on-site emergency generator that shall automatically switch on in the event of power failure.

15.232 Distribution Boxes

- (2)(a) *limits distribution box use to those products approved by the Department; deletes use of distribution boxes approved by authorized agent;*

15.233 Siphons

- removes allowance of siphon use as a component of a RSF or other approved technology.

15.254 Pressure Dosing and Pressure Distribution

- (2)(a) *Pressure Distribution: grants authority to AA to waive pressure dosing requirements.*

15.255 Construction in Fill

- (3) specs for fill material adds more detail to #4 sieve requirements.

15.260 Tight tanks

- (1) *Deleted in its entirety. Removes Department from process, and establishes authority with AA throughout the section.*

- (7) allows grandfathering of installation of a tight tank in velocity zone on a coastal beach, barrier beach, or dune, or in a regulatory floodway if it “replaces a tank in existence on the site as of March 31, 1995, that has been damaged or destroyed, and placement of the tank outside of the velocity zone or regulatory floodway, either horizontally or vertically, is not feasible”.

15.262 Greywater Systems

- (4) *Limits discharge of greywater into an alternative to a soil absorption system to only those alternative systems approved by the Department.*

15.281 Approval of Alternative Systems – Purpose

(3) *Limits sale or installation of alternative systems to those approved by the Department.*

15.283 Process for Review of Alternative System Proposals

(1) *Allows agents authorized by the Department to review applications for approval of alternative systems.*

(4) *Removes authority of authorized agent to review issues which relate to flow.*

15.284 Approval for Remedial Use

15.285 Approval for Piloting

15.286 Provisional Approval of Alternative System

Authority of “agent authorized by the Department” is removed throughout these sections

15.286 Provisional Approval of Alternative System

(4) *Removes authority of Department to allow use of provisionally approved systems in special condition circumstances.*

15.287 General Conditions for Use of Alternative Systems

- (2) *allows for agent authorized by the Department to accept operation, maintenance, monitoring and testing plans;*

- (2) *removes authority for agent approved by the Department to approve monitoring and sampling plan;*

- (3) *empowers agent authorized by the Department to perform inspection and sampling;*
- (5) *adds time of transfer requirements to property owner;*
- (6) *allows agent authorized by the Department to accept owner's determination of need for certified alternative system operator;*
- (10) *removes authority from agent authorized by the Department to approve form of Deed Notice.*

15.293 deleted in its entirety.

- *Eliminates MassDEP review of shared systems, leaving it to AAs.*

15.300 Purpose

- (1) Requires repair, replacement, or upgrade if any criteria or condition in inspection form is met.

15.301 System Inspection

- (6) *Creates 310 CMR 15.301(a) exemption from five-year inspection cycle for systems with total design flows greater than 10,000 gallons per day*

15.340 Approval of System Inspectors

Limits approval and revocation of approval of inspectors to Department. Empowers agents authorized by the department to give exams and maintain a list of all approved inspectors.

15.351 System Pumping and Routine Maintenance

- (2) Requires inspection of pumps, alarms, and other equipment once every three months for any system serving a facility with a design flow of 2,000 gallons per day or greater, and annually for any system serving a facility with a design flow of less than 2,000 gallons per day. Requires the system owner to submit the results of such inspections to the AA annually by January 31st of each year for the previous calendar year.

15.353 Emergency Repair

- (2) excludes soil absorption system from emergency repair or replacement.

15.402 Use of Local Upgrade Approvals or Variances

- (2) *Removes Department from variance process for new construction or for increase in flow.*

15.405 Contents of Local Upgrade Approval

- (1)(k) change requirement from two deep holes to "at least one deep hole" for characterization of the soils;
- (3) removes requirement that groundwater discharge permit meets 310 CMR 6.00; and *empowers AA to permit use of tight tank.*

15.411 Process for Seeking a Variance From Local Approving Authorities

- (1) Requires written statement that variance request demonstrates compliance with 310 CMR 15.410;
- (2) Requires applicant's notification to abutters to include a statement demonstrating compliance with 310 CMR 15.410;
- (4) Removes Departmental review of request for a variance for residential facility with four units or less;
- (5) Requires AA to submit copies of 15.411(5) variances to Department within 30 days of issuance.

15.412 Review of Variances by the Department

Entire section removed, with sections rolled into 15.411.

15.414: Variances for Increased Flow to Existing System

- (1) *Changes authority from Local AA and Department to Local AA or Department.*