This is a listing of issues that have been approved by the TRAP and are being considered for inclusion into chapter 64E-6, FAC. The issue sheets are generally accurate but may contain errors and omissions.

Call Ed Barranco or Robin Eychaner at 850-245-4070 with questions regarding the rule proposals.
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64E.030 Fees.

(1) The following fees are required for services provided by the department.

(a) through (r) No change

(s) Septage and food establishment storage tank inspection $100/$50.00

for additional tanks not already permitted or being removed—per tank.

(t) Septage disposal site evaluation fee per annum $200

(u) through (x) renumbered (t) through (w)

(2) No change.

Rulemaking Authority 154.06(1), 381.0066, 489.557(1) FS. Law Implemented 381.0065,
381.0066, 489.557 FS. History—New 2-3-98, Amended 3-22-00, 4-21-02, 5-24-04, 11-26-06, 9-
24-07, MM/DD/YY.
Issue Number: 19-07

Subject: Fees

Rule Sections: 64E-6.030

Issue: Land spreading has been removed from the Department’s jurisdictional authority. Therefore, the fee is only applicable to the remaining operations which include lime stabilization and septage storage, prior to disposal.

Purpose and Effect: deletes the land application language, the associated with the fee is reduced by half, and clarification is provided for permitting remaining activities of lime stabilization and septage storage.

Summary: The draft deletes the land application language, the associated with the fee is reduced by half, and clarification is provided for permitting remaining activities of lime stabilization and septage storage.

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TRAP Final Recommendation: Pass

Ready for Inclusion in Rule: YES
64E-6.0101 Portable Restrooms and Portable or Stationary Holding Tanks.

(1) Persons servicing portable restrooms, portable hand washing facilities and portable or stationary holding tanks shall obtain an annual permit on Form DH 4013 from the county health department in the county in which the service company has an office or storage yard. The service company need not be permitted in neighboring counties in which the service company operates but does not have an office or storage yard. Service persons shall carry proof of possession of a current annual operating permit and vehicle inspection for review by department personnel in neighboring counties. Permits issued under this rule authorize the disposal service to handle liquid waste associated with portable restrooms, portable hand washing facilities, restroom trailers, shower trailers and portable or stationary holding tanks containing domestic wastewater produced in the State of Florida.

(2) Application for a service permit shall be made to the DOH county health department on Form DH 4012, “Application for Septage Disposal Service Permit, Temporary System Service Permit, Septage Treatment and Disposal Facility, Septic Tank Manufacturing Approval”. Any change to the permit conditions shall require a permit amendment. Adding storage tanks to hold the liquid waste associated with portable restrooms, portable hand washing facilities, restroom trailers, shower trailers and portable or stationary holding tanks containing domestic wastewater may be located at sites owned or leased by the service. The tanks must comply with the construction standards found in 64E-6.010(2)(a). Where leased, a copy of the complete lease agreement must be provided as part of the application. The lease must provide for the final disposition of all tanks and designate the party to be held responsible for final disposition of any tank on a leased facility. Whenever locations or tanks are modified, added or removed, the applicant must amend their current service permit application using form DH 4012 and provide all current information to the department prior to any changes being made. All changes shall be noted on an amended permit, which shall not alter the issue date of the permit. All alterations must be inspected by the department at time of installation, as well as after removal of any tank. The following must be provided for the evaluation prior to issuance of a service permit:

(a) Evidence that the applicant possesses adequate equipment such as a tank truck, pumps, off truck stabilization tanks and pH testing equipment where lime stabilization and land application are proposed, as well as other appurtenances and tools necessary to perform the work intended. Equipment may be placed into service only after it has been inspected and approved by the DOH county health department. Tanks used for the stabilization and storage of portable or stationary holding tank waste and portable restroom waste shall be constructed, sized, and operated in accordance with the provisions of subparagraphs 64E-6.010(2)(a)1. and 23, F.A.C.

(b) and (c) No change.
(3) through (5) No change.
(6) All portable restroom and portable or stationary holding tank waste haulers regulated by Chapter 64E-6, F.A.C., are to maintain a collection and hauling log at the main business location which provides the information listed below. Records shall be retained for five (5) years.

(a) No change.
(b) Estimated volume, in gallons, of septage or waste transported;
(c) No change.
(d) No change.
(e) Acknowledgement from treatment facility of receipt of septage or waste; and
(f) No change.

(7) Portable Restrooms, Portable Holding Tanks, Stationary Holding Tanks, Mobile Restroom Trailers, Mobile Shower Trailers, and Portable Sinks.

(a) through (t) No Change.
(u) Portable or stationary holding tank, portable restroom, and portable hand sink wastes shall be disposed of into a septage treatment and disposal facility approved by the department or into a treatment facility approved or permitted for such disposal by the Department of Environmental Protection. These wastes shall be disposed of at land applied under provisions of subsection 64E-6.010(7), F.A.C., provided a DEP-approved treatment facility or DEP regulated land application site is not available. Companies which service portable or stationary holding tanks or portable restrooms which use quaternary ammonium sanitizing and deodorizing compounds are prohibited from having the wastes treated or disposed of at lime stabilization facilities.

(v) When disposed of in a department approved lime stabilization facility, the portable restroom, portable hand washing and portable or stationary holding tank wastes shall be blended with domestic septage at a rate of no less than 3 parts septage to 1 part holding tank, portable restroom or portable hand washing facility waste prior to lime stabilization. Treatment and disposal shall comply with the provisions of paragraphs 64E-6.010(7)(a)-(u), F.A.C.

(w) and (x) renumbered to (v) and (w), No change.

(8) No change.

Rulemaking Authority 381.0065(3)(a), 489.553(3) FS. Law Implemented 381.0065, 386.041 FS. History—New 5-24-04, Amended 11-26-06, 6-25-09, 4-28-10, MM-DD-YY.
Issue Number: 19-06

Subject: Change in permit conditions requiring a permit amendment

Rule Sections: 64E-6.0101

Issue: Clarifying what is required when making a change to an existing permit, thus requiring the Department to review the changes and make an amendment to the existing permit.

Purpose and Effect: detail what a permit amendment is and when it is required, as it relates to permits for holding tanks and lime stabilization activities for portable restrooms, portable hand washing facilities, restroom trailers, shower trailers and portable or stationary holding tanks containing domestic wastewater.

Summary: The proposed changes detail what a permit amendment is and when it is required, as it relates to permits for holding tanks and lime stabilization activities for portable restrooms, portable hand washing facilities, restroom trailers, shower trailers and portable or stationary holding tanks containing domestic wastewater.

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TRAP Final Recommendation: Pass

Ready for Inclusion in Rule: YES
64E-6.010 Septage and Food Establishment Sludge.

(1) No septic tank, grease interceptor, privy, or other receptacle associated with an onsite sewage treatment and disposal system shall be cleaned or have its contents removed until the service person has obtained an annual written permit (Form DH 4013, 01/92, Operating Permit, herein incorporated by reference) from the DOH county health department in the county in which the service company is located. Permits issued under this section authorize the disposal service to handle liquid waste associated with food operations, domestic waste, or domestic septage. Such authorization applies to all septage produced in the State of Florida, and food establishment sludge which is collected for disposal from onsite sewage treatment and disposal systems.

(2) Application for a service permit shall be made to the DOH county health department on Form DH 4012, 01/92, “Application for Septage Disposal Service Permit, Temporary System Service Permit, Septage Treatment and Disposal Facility, Septic Tank Manufacturing Approval” herein incorporated by reference. Any change to the permit conditions shall require a permit amendment. Permit amendments shall not alter the permit issue date. The following must be provided for the evaluation prior to issuance of a service permit:

(a) Evidence that the applicant possesses adequate equipment such as a tank truck with a liquid capacity of at least 1500 gallons, pumps, off truck stabilization tanks and pH testing equipment where lime stabilization and land application are proposed, as well as other appurtenances and tools necessary to perform the work intended. Equipment may be placed into service only after it has been inspected and approved by the DOH county health department. Tanks used for the stabilization and storage of septage and food service sludges shall be constructed, sized, and operated in accordance with the following provisions:

1. Stabilization tanks and Septage storage tanks shall be constructed of concrete, fiberglass, corrosion-resistant steel, or other equally durable material. Tanks shall be watertight and shall be water tested for leaks prior to placing into service. The stabilization tank shall have a liquid capacity of at least 3000 gallons.

2. Construction of concrete tanks shall be at a minimum equal to that required of concrete septic tanks in Rule 64E-6.013, F.A.C. Fiberglass tanks and tanks of similar materials shall be constructed in accordance with standards found in Rule 64E-6.013, F.A.C.

3. Stabilization tanks shall contain aeration or mixing devices which will ensure thorough agitation or mixing of lime with the waste as specified in Chapter 6, EPA 625/1-79-011, Process Design Manual for Septage Treatment and Disposal, herein incorporated by reference.

(b) and (c) No change.

(3) through (5) No change.

(6) Treated Septage and sludges shall be transported to the disposal site in such a manner as to preclude leakage, spillage or the creation of a sanitary nuisance.

(7) The food establishment sludge and contents from onsite waste disposal systems shall be disposed of at a site approved by the Florida Department of Environmental Protection DOH county health department and by an approved disposal method. Untreated domestic septage or food establishment sludges shall not be applied to the land. Criteria for approved stabilization methods and the subsequent land application of domestic septage or other domestic onsite wastewater sludges shall be in accordance with the following criteria for land application and disposal of domestic septage.

(a) Land application of domestic septage and sludges shall be is not permitted by the department, provided such septage and sludges have been properly treated by an DEP approved septage stabilization process, including lime stabilization, and an application using Form DH 4012 has been completed as part of the permitting process.

Prior to discharge of septage or food establishment sludge into a stabilization tank, the
septage or sludge shall be screened in a pretreatment tank or chamber which contains a final screening method using bar screens having a maximum gap of 1/2 inch or rock screens or other similar mesh material having a maximum 3/4 inch opening. Material retained in the screening process shall be limed, containerized, and disposed of at an approved solid waste disposal facility. Septage or sludge shall pass from the pretreatment tank or chamber to the stabilization tank. Lime stabilization of septage shall be in accordance with processes and designs described in Chapter 6, EPA 625/1-79-011, Process Design Manual for Sludge Treatment and Disposal, hereby incorporated by reference. Facilities approved for septage treatment under this rule shall not receive and treat more than 20,000 gallons of septage or combined septage, grease interceptor, portable restroom or other receptacle waste associated with an onsite sewage treatment and disposal system on any one day and shall not exceed a monthly average of 10,000 gallons of septage or septage and combined domestic waste per day. Stabilization by lime shall raise the pH of the septage to a level of 12 for a minimum of two hours or to a level of at least 12.5 for a minimum of 30 minutes to be deemed sufficient. The pH of the stabilized septage shall be maintained at a level of at least 11 until actual land application, but shall not be landspread until the pH of the stabilized septage has fallen below 12.5. To check the pH of the stabilized septage, a sampling port having an internal diameter of no less than 1/2 inch and no more than 3/4 inch and located no more than 60 inches above the ground surface shall be used to allow sampling of waste tank contents. Lime purchase receipts shall be kept at the place of business for a minimum of 6 months.

1. Use on playgrounds, parks, golf courses, lawns, hospital grounds, or other unrestricted public access areas where frequent human contact is likely to occur is prohibited.

2. Application is limited to sod farms, pasture lands, forests, highway shoulders and medians, plant nursery use, land reclamation projects and soils used for growing human food chain crops. Application methods shall be conducted in a manner which will disperse the treated septage uniformly over the land application site.

a. Pasture vegetation on which stabilized septage or sludge has been applied shall not be cut for hay or silage nor grazed for a period of 30 days from the last application.

b. No human food chain crops except hay, silage, or orchard crops shall be harvested from a land application area for a period of 60 days following the last application of septage or sludges.

c. Domestic septage or sludge shall not be used for the growing or cultivation of tobacco, root crops, leafy vegetables, or vegetables to be eaten raw. Vegetables and fruits which come in contact with the ground surface shall not be grown on land used for septage application for a period of 18 months after the last application of septage or sludge.

d. When applied to unvegetated soils, stabilized domestic septage or sludge shall be incorporated into the soil within 48 hours of application.

(b) No land application of stabilized septage or food service sludge may occur until:

1. The site has been inspected and approved by department personnel.

2. The site evaluation fee has been submitted.

3. An Agricultural Use Plan, Form DH 4012A, 08/09, herein incorporated by reference, has been completed for the proposed application site.

a. Agricultural use plans shall describe the manner in which treated domestic septage and sludges are to be used as part of a planned agricultural operation. Methods of application, proposed crops and their fertilizer needs, vegetative types proposed, erosion management, access control for humans and animals, and anticipated harvesting periods shall be included.

b. Agricultural use plans shall include information on the soil and geologic conditions at the disposal site which could limit the areas available for land application.

4. The plan has been submitted for review and approval to the DOH county health department having jurisdiction.

5. The DOH county health department has granted approval to use the site.
(c) No person shall dispose of domestic septage or sludge by land application unless they have complied with approved treatment and disposal methods described in Rule 64E-6.010, F.A.C. Lime stabilization in the tank of a septage hauling vehicle or in the tank of an onsite sewage treatment and disposal system is not an approved septage treatment method.

(d) Land application of septage shall occur only in accordance with paragraph 64E-6.010(7)(a), F.A.C., unless prohibited by the DOH county health department due to a brief condition which creates a potential for a sanitary nuisance as exemplified in paragraph 64E-6.010(7)(l), F.A.C.

(b) All septage and food establishment sludge haulers regulated by Chapter 64E-6, F.A.C., are to maintain a collection and hauling log at the treatment site or at the main business location which provides the information listed below. Records shall be retained for five (5) years.

1. Date of septage or waste collection;
2. Address of collection;
3. Indicate whether the point of collection is a residence or business and if a business, the type of business;
4. Estimated volume, in gallons, of septage or waste transported;
5. Receipts for lime or other materials used for treatment;
6. Location of the approved treatment facility;
7. Date and time of discharge to the treatment facility; and
8. Acknowledgement from treatment facility of receipt of septage or waste.

(f) All Department of Health-regulated septage treatment facility operators shall maintain permanent records of the septage or waste receipt, treatment and discharge. Records shall be retained for five (5) years. At a minimum, these records shall include the following.

1. Date and time of each load of septage or waste is received;
2. Name of company from which the septage or waste is received;
3. Identification of the truck from which the septage or waste was received;
4. Signature from the driver acknowledging delivery of the septage or waste;
5. Quantity of septage or waste received;
6. Date and time of discharge of each load of treated septage or waste;
7. Name of the company which received the treated septage or waste from the treatment facility;
8. Signature from the driver of the truck which received the treated septage or waste; and
9. Quantity of treated septage or waste discharged to the truck.

(g) A summary of the total volume of septage applied to each site shall be submitted to the DOH county health department quarterly.

(h) Domestic wastewater systems residuals shall not be mixed with septage for treatment and disposal at department approved sites.

(i) Septage which contains toxic or hazardous waste must be disposed of in accordance with the rules of the Department of Environmental Protection.

(j) The land application area shall not be located closer than 3000 feet to any Class I water body or Outstanding Florida Water as defined in Chapter 62-302, F.A.C., or 200 feet to any surface water bodies except canals or bodies of water used for irrigation purposes which are located completely within and not discharging from the site. The land application area shall not be located closer than 500 feet to any shallow public water supply wells, nor closer than 300 feet to any private drinking water supply well. The application area shall be no closer than 300 feet to any habitable building and a minimum of 75 feet from property lines and drainage ditches.

(k) The land application site shall have a minimum 24 inches of unsaturated soil above the ground water table at the time of septage or sludge application. The seasonal high ground water table for the site may be indicated in the Agricultural Use Plan by soil survey maps. If the wet season high ground water table is within 2 feet of the surface or is not determined in the
Agricultural Use Plan, the water table encountered at the time of septage or sludge application shall be determined by use of a monitoring well.

(i) Septage or sludge shall not be applied during rain events of sufficient magnitude to cause runoff, or during periods in which surface soils of the land application area are saturated. The land application area shall have sufficient buffer areas or stormwater management structures to retain the runoff from a ten-year one-hour storm on the site. Sufficient septage storage capacity shall be provided for periods of inclement weather and equipment failure. Facilities shall be designed, located, and operated to prevent nuisance conditions and avoid site run-off.

(m) Land application area topographic grades shall not exceed 8 percent.

(n) The land application area and an area 200 feet wide adjacent to, and exterior of, the land application area boundary shall contain no subsurface fractures, solution cavities, sink holes, excavation core holes, abandoned holes, or any other natural or manmade conduits which allow contamination of ground water. Determinations of site conditions shall be made as part of a geophysical examination of the property by qualified persons.

(o) Florida water quality criteria for groundwater and surface water shall not be violated as a result of land application of septage or sludge. Water quality testing of application areas may be required if the department determines that septage application not conforming to this rule is evident. If water quality violations are indicated, the site owner shall suspend land application activities.

(p) A layer of permeable soil at least 2 feet thick shall cover the surface of the land application area.

(q) Unless required by law to be limited by phosphorous, application rates of septage and food establishment sludges are limited by the nitrogen content of the waste.

1. Where the application rate is limited by nitrogen content, the maximum annual surface application rate of total nitrogen is 500 pounds per acre during any 12-month period. Application of septage shall be applied as evenly as possible during the 12-month period to ensure maximum uptake of nitrogen by the crops used. This equates to 6 dry tons or 40,000 gallons of typical septage per acre per year. However, if the following formula, based on the annual uptake of nitrogen for a given crop is used, the 40,000 gallons of septage applied per acre per year shall be increased if the nitrogen content of the septage will not exceed the nitrogen uptake of the crop.

\[
\text{AAR} = \frac{N}{0.0026}
\]

AAR is the annual application rate in gallons per acre per 365 day period; and N equals the amount of nitrogen in pounds per acre per 365 day period needed by the crop or vegetation grown on the land. Application methods shall be conducted in a manner which will disperse the treated septage uniformly over the land application site.

2. Where the application rate is limited by phosphorous, the maximum annual surface application rate of total phosphorous is 40 pounds per acre during any 12 month period. Application of septage shall be applied as evenly as possible during the 12 month period to ensure maximum uptake of phosphorous by the crops used. This equates to 2 dry tons or 12,000 gallons of typical septage per year. However, if the following formula, based on the annual uptake of phosphorous for a given crop is used, the 12,000 gallons of septage applied per acre per year shall be increased if the phosphorous content of the septage will not exceed the phosphorous demand of the crop.

\[
\text{AAR} = \frac{P}{0.0076} \text{ if the crop demand is calculated for } P_2O_5
\]

\[
\text{AAR} = \frac{P}{0.0033} \text{ if the crop demand is calculated for } P
\]

AAR is the annual application rate in gallons per acre per 365 day period; and P equals the Crop Phosphorous Demand in pounds per acre per 365 day period calculated for the crop or vegetation grown on the land. Application methods shall be conducted in a manner which will disperse the treated septage uniformly over the land application site.

(r) Permanent records of actual application areas and application rates shall be kept.
records shall be maintained by the site owner, lessee, or the land applicator for a period of five
years, and shall be available for inspection upon request by the department or by DEP. An
annual summary of the total septage or sludge applied shall be provided with the annual update
to the Agricultural Use Plan. Records shall be kept and shall include:

1. Location of the septage treatment facility from which each load of treated septage is
   obtained.
2. Date and time the treated septage was obtained from the treatment facility.
3. Dates of septage or sludge land application.
4. Weather conditions when applied.
5. Location of septage or sludge application site.
6. Amounts of septage or sludge applied.
7. Specific area of the site where septage or sludge was applied.
8. pH of stabilized septage or sludge being applied.
9. Soil groundwater table when septage was applied.
10. Vegetational status of application area.

(s) Renumbered to (d) No change.
(t) Application of food establishment sludge to the land shall be permitted if such food
establishment sludge has been properly treated by lime stabilization, or by any other process
which produces similar kills of microorganisms and has been approved by the State Health
Office.
(u) Mixing of unstabilized food establishment sludge with stabilized septage prior to land
application is not permitted.
(v) Food establishment sludge shall be blended with septage and treated prior to land
application. The ratio of food establishment sludge to septage shall be no greater than 1:1.
(8) Stabilization tanks and Septage and food establishment storage tanks may be located
at regional stabilization facilities, at sites owned or leased by the disposal service, or at sites
owned by the owner or lessee of the septage land application site. Where leased, a copy of the
complete lease agreement must be provided as part of the application. The lease must provide
for the final disposition of all tanks and designate the party to be held responsible for final
disposition of any tank. Whenever locations or tanks are modified, added or
removed, the applicant must amend their current service permit application using form DH 4012
and provide all current information to the department prior to any changes being made. All
changes shall be noted on an amended permit, and shall not alter the issue date of the permit.
All alterations must be inspected by the department at time of installation, as well as after
removal of any tank.
(9) Potable water supplies located at the stabilization tank and septage and food
establishment sludge storage tank site shall be provided with back flow prevention devices to
prevent potential contamination of water supplies.
(10) All materials incorporated herein may be obtained from the Bureau of Onsite Sewage
Programs at www.MyFloridaEH.com or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida
32399-1713.

Rulemaking Authority 381.0065(3)(a), 489.553(3) FS. Law Implemented 381.0065, 386.041,
373.4595 FS. History–New 12-22-82, Amended 2-5-85, Formerly 10D-6.52, Amended 3-17-92,
1-3-95, 5-14-96, Formerly 10D-6.052, Amended 3-22-00, 5-24-04, 11-26-06, 6-25-09, 4-28-10,
MM-DD-YY.
Issue Number: 19-05

Subject: Land application of sewage, lime stabilization facilities and storage

Rule Sections: 64E-6.010

Issue: The Department of Health’s authority to permit land application of sewage operations was removed two years ago. The rule proposal is making the related changes to rule 64E-6.010, FAC, to reflect the Department’s current authority.

Purpose and Effect: strikes language related to land application of sewage. Clarifies remaining language and permitting requirements for lime stabilization and storage of untreated sewage.

Summary: Strikes language related to permitting of land application of sewage. Provides additional clarification for lime stabilization operations and storage of sewage, until it is properly disposed of at a site approved by the Department of Environmental Protection (DEP).

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Date of TRAP Final Recommendation: 4/23/2019
TRAP Final Recommendation: Pass
Ready for Inclusion in Rule: YES
64E-6.001 General.

(1) No change

(2) No change.

(3) No change.

(4) The Department of Environmental Protection, as required by the Florida Springs and Aquifer Protection Act (Part VIII of Chapter 373, Florida Statutes), has adopted individual onsite sewage treatment and disposal system remediation plans and areas to which they apply pursuant to section 373.807(3), Florida Statutes, as part of basin management action plans (BMAP) for several Outstanding Florida Springs, as defined by section 373.802(4), Florida Statutes. In accordance with sections 373.807 and 373.811, installation of new conventional onsite sewage treatment and disposal system or repair or modification of an existing conventional onsite sewage treatment and disposal system is prohibited within the BMAP boundaries of an Outstanding Florida Spring, unless the BMAP remediation plan otherwise allows. Such systems cumulatively result in the significant degradation of water quality in Outstanding Florida Springs. The following onsite sewage treatment and disposal system remediation plans are incorporated by reference and are available at https://www.flrules.org/Gateway/reference.asp?No=Ref-XXXXX.


(4) renumbered to (5) No change.

(5) renumbered to (6) No change.

(6) renumbered to (7) No change.

(7) renumbered to (8) No change.

Rulemaking Authority 381.0065(3)(a), 489.553(3), 489.557(1) FS. Law Implemented 381.0065, 381.0067, 373.811(2), 386.041, 489.553 FS. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.41, Amended 3-17-92, 1-3-95, 5-14-96, 2-13-97, Formerly 10D-6.041, Amended 11-19-97, 2-3-98, 3-22-00, 9-5-00, 5-24-04, 11-26-06, 6-25-09, 4-28-10, 7-16-13, MM-DD-YY.
Subject: Adoption of Basin Management Action Plans (BMAP) by rule reform

Issue: The DEP had adopted individual onsite sewage treatment and disposal systems (OSTDS) remediation plans and designated areas in which they apply, as part of the Florida Springs and Aquifer Protection Act of s. 373.807(3), FS. The DOH needs to reference these areas in rule, to ensure system repairs consist of nitrogen-reducing systems.

Purpose and Effect: will allow for expanded system repair options in DEP BMAP areas.

Summary: The DEP had adopted individual onsite OSTDS remediation plans and designated areas in which they apply, as part of the Florida Springs and Aquifer Protection Act of s. 373.807(3), FS. The proposed language adopts basin management action plans (BMAP) for several Outstanding Florida Springs.

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Date Initially Approved by TRAP: 2/28/2019
Date Heard by Variance Committee: 3/7/2019
Date of TRAP Final Recommendation: 4/23/2019
TRAP Final Recommendation: Pass

Ready for Inclusion in Rule: YES
64E-6.014 Construction Standards for Drainfield Systems

(1) No change.

(2) Header pipe – header pipe, when used, shall be installed in compliance with the following requirements:

(a) Header pipe shall meet one or more of the following requirements:


(b) and (b) No change.

(c) When installing a drainfield system that uses mineral aggregate, all portions of the header pipe and perforated drain pipe shall be installed in aggregate conforming to ASTM C33/C33M-18 or lightweight aggregate conforming to ASTM C 330/C330M-17a or C330-87 meeting State of Florida Department of Transportation (FDOT) specifications under Section 901, “Standard Specifications for Road and Bridge Construction, January 2019” and the following gradation requirements.

<table>
<thead>
<tr>
<th>Sieve size</th>
<th>2 IN.</th>
<th>1 1/2 IN.</th>
<th>1 IN.</th>
<th>3/4 IN.</th>
<th>1/2 IN.</th>
<th>3/8 IN.</th>
<th>No. 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent passing</td>
<td>90-100</td>
<td>35-100</td>
<td>15-100</td>
<td>0-70</td>
<td>0-50</td>
<td>0-30</td>
<td>0-5</td>
</tr>
</tbody>
</table>

In addition, not more than 3.75% by weight of the aggregate material at the point of use shall pass a #200 sieve.

(d) through (f) No change.

(g) The inside diameter of the drain pipe used in drainfields shall be determined based on the type and design of the proposed absorption system. However, for standard gravity aggregate drainfield systems, inside pipe diameter shall not be less than 4 inches. Perforated pipe shall have two rows of holes, and a minimum perforated area of 1 1/2 square inches per linear foot. Perforations shall be located not less than 30º or more than 60º from the vertical on either side of the center line of the bottom of the pipe. However, for drainfield systems designed by an engineer, drainpipe perforation area and hole configuration shall assure that effluent is
distributed as equally as possible throughout the drainfield area. All plastic pipe shall conform to
the standards of ASTM D 3034-1698, Standard Specification for Type PSM Poly (Vinyl
Chloride) (PVC) Sewer Pipe and Fittings (2016+98), herein incorporated by reference, ASTM
F667/F667M-16, Standard Specification for 3 through 24 in. Corrugated Polyethylene Pipe and
Fittings (2016), F 405-97, Standard Specification for Corrugated Polyethylene (PE) Pipe and
Fittings (1997), herein incorporated by reference, or ASTM F 810-1299 (1999), herein
incorporated by reference.
(h) through (k) No changes.
(6) All materials incorporated herein may be obtained from the Bureau of Onsite Sewage
Programs at www.MyFloridaEH.com or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida
32399-1713.
Rulemaking Authority 381.0065(3)(a) FS. Law Implemented 381.0065 FS. History–New 12-22-
82, Amended 2-5-85, Formerly 10D-6.56, Amended 3-17-92, 1-3-95, Formerly 10D-6.056,
Amended 2-3-98, 3-22-00, 5-24-04, 11-26-06, 6-25-09, 7-16-13, MM/DD/YY.
Issue Number: 19-02

Subject: Update ASTM International standard reference

Rule Sections: 64E-6.014(2)(a)

Issue: ASTM has confirmed to DOH, the standard ASTM F 405 has been withdrawn and standard ASTM F 667 is now in effect for corrugated polyethylene pipe. The requirement in 64E-6.014(2)(a)4., FAC, will be updated with the next rule change. Other standards referenced in this section will be checked for updates as well.

Purpose and Effect: Update ASTM International standards for septic related materials

Summary: Standard ASTM F 405 has been withdrawn and ASTM F 667 is now in effect for corrugated polyethylene pipe. The requirement in 64E-6.014(2)(a)4., FAC, will be updated with the next rule change. Meanwhile, please accept the ASTM F 667 pipe as meeting the rule requirement. Additionally, existing pipe marked with ASTM F 405 may likewise be used and approved while the stock remains. Any alternative products that were approved specifying the use of ASTM F 405 compliant materials may likewise be approved using ASTM F 667 compliant materials.

Date New: 1/8/2019
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Date of TRAP Final Recommendation: 4/23/2019
TRAP Final Recommendation: pass

Ready for Inclusion in Rule: YES
TRAP Issue 19-01

64E-6.009 Alternative Systems.
Introductory paragraph – No Change.
(1)-(4) No Change.
(5) Introductory paragraph – No Change.
(a) No Change.
1. through 22. No Change.

23. Drip irrigation systems shall only use components approved by the Bureau of Onsite Sewage Programs.

24. through 28. No Change

(6) No Change.

(7) In-ground Nitrogen-reducing Biofilters (INRB) – An arrangement of certain types of materials installed in layers underneath a drainfield for the purpose of reducing the mean total nitrogen by acting as a biological filter. INRB Nitrogen-reducing media layers, also referred to as media layers, may be placed beneath the drainfield provided the resulting system meets all requirements of this chapter except as noted in this subsection. The target removal effectiveness for mean total nitrogen (TN) is a minimum of 65% for all INRB. Where a liner is used as part of the drainfield design, the INRB must be designed by a professional engineer, and must be installed per paragraph (b) or (c) below. For INRBs using liners, the engineer shall inspect media layer 2 of the system prior to the department's construction inspection. Final system approval must not be granted until the engineer has supplied the following in a report to the department: media layer 2 inspection report; an as-built cross section; a plan view of the installed INRB system; and a statement indicating the system has been installed in conformance with permitting requirements. The engineer media layer 2 inspection report satisfies the media layer 2 inspection requirements of rule subsection 64E-6.009(7)(d), F.A.C.

Where paragraph (b) or (c) does not modify a standard found in paragraph (a), the standard found in paragraph (a) shall apply. All repairs or modifications to existing INRB systems shall be required to meet the standards of this subsection. Low-pressure dosing requirements found in subsection 64E-6.014(3) applies to all drainfields installed per the requirements of this subsection.

(a) INRB Nitrogen-reducing media layers shall be installed as follows:
1. The layer described in this subparagraph shall also be referred to as media layer 1. The drainfield shall be installed centered over sand fill material that is at least 18 inches thick and conforms to the textures and colors in subparagraph 10. below. Media layer 1 and shall extend at least one foot beyond the perimeter of the drainfield. The drainfield shall be centered above the media layer 2.

2. Below media layer 1 the sand fill material layer required in subparagraph 1. above there shall be a nitrogen-reducing media and fine aggregate mix media layer, also referred to as media layer 2, that is at least 12 inches thick and extends beneath the entire drainfield absorption surface and extends at least 24 inches beyond the perimeter of any portion of the drainfield absorption surface and any other effluent release point. The media layer 2 shall also extend upward along the boundary of media layer 1 the sand fill material to a point four to six inches below the bottom of the drainfield. Media layer 1 the drainfield shall be centered above the media layer 2. The media layer 2 shall conform with subparagraphs 8. and 11. below. The media layer shall not be installed when the observed water table is at or above the lowest depth of media layer.

3. The bottom of the media layer 2 shall be at least 6 inches above the wet season water table.
4. While media longevity and nutrient reduction may be enhanced by the use of low-pressure distribution, any Department-approved drainfield effluent distribution method may be used.

5. The natural and existing soil profiles throughout the area of the drainfield and the area where the INRB will be placed shall indicate slightly limited soils extending from the existing ground surface to at least 36 inches below existing ground surface the bottom of the nitrogen-reducing media layer.

6. Only drainfield materials approved per Rule 64E-6.014 or Rule 64E-6.009, F.A.C. shall be used.

7. As measured vertically, no portion of the media layer required in subparagraph 2 above, shall be within 18 inches of the absorption infiltrative surface of the drainfield.

8. An example of nitrogen-reducing media is lignocellulosic material such as chips or shavings of untreated lumber, blended urban waste wood mulch, yellow pine sawdust, or 2-inch to 3-inch wood chips. Lumber that is used as a source of lignocellulosic material must be untreated. The acceptable range of sizes of the individual types of nitrogen-reducing material shall be what is recognized by the industry that produces the materials, and must be routinely available for public purchase. Lignocellulosic material must be free of extraneous non-woody material, for example; plastic, metal, grass, leaves, and any other debris. The nitrogen-reducing media shall be demonstrated in Florida-based studies to be effective at providing a substrate for denitrification.

9. The nitrogen-reducing media shall comply with the provisions of Rule 64E-6.0151, F.A.C.

10. The soil layer between the infiltrative surface of the drainfield and the media layer shall extend beneath the entire drainfield absorption surface and to a point at least one foot beyond the perimeter of any portion of the drainfield absorption surface and any other effluent release point and shall consist of fine aggregate having a texture of sand or fine sand but excluding:

   a. those having color values less than or equal to 4 with chromas less than or equal to 3; or
b. those with colors on the gley charts.

11. The media layer 2 shall be a combination of nitrogen-reducing media and fine aggregate, which shall be composed of 40-60% nitrogen-reducing media by volume, with the remainder to be fine aggregate, and must. The media layer shall not be installed when the observed water table is at or above the lowest depth of the media layer. The fine aggregate to be mixed with the nitrogen-reducing media shall be one or more of the following textures: sand, fine sand, coarse sandy loam, sandy loam, loamy sand, fine sandy loam, very fine sand, loamy fine sand, and loamy very fine sand; and shall conform to the colors in subparagraph 10. above. The media layer 2 shall be thoroughly mixed while the soil is in a non-plastic state, with the constituents uniformly distributed when installed.

12. Where the system has a total required drainfield size over 1500 square feet, the design engineer shall address the potential for mounding of the effluent between the drainfield and the bottom of the media layer 2 at the estimated sewage flow and will increase the separation between the drainfield and the media layer 2 required in subparagraph 2. above, to ensure media layer 1 maintains no less than 18 inches of unsaturated soil beneath the drainfield. A four-inch diameter observation port in the center of the drainfield shall be installed to monitor this parameter. The observation port shall be capped and lockable and installed within a protective surface cover. A toilet flange shall be securely attached to the bottom of the observation port to prevent the port from being inadvertently raised from its installed position. The observation port, including the flange, shall be perforated at the lowest elevation possible to allow accurate measurements. If installed within three feet of the sidewall of a bed or trench, the port shall be grouted to prevent effluent from flowing down the outer surface of the port to the media.

13. Drainfield repair shall not necessitate media layer 2 replacement provided the media has been in use for less than 10 years or if sampling within the previous 12 months shows denitrification at or above the target level for mean total nitrogen (TN) removal efficiency which shall be a minimum 65%.

14. Setback distances to media layers 1 and 2 the denitrification media or soil material directly above denitrification media extending to the absorption infiltrative surface of the drainfield shall be reduced by the following:

a. Except for building foundations, vertical obstructions and pilings for elevated structures, where the required setback is ≤5 feet, the setback shall be reduced to one foot.

b. Where the required setback is ≥10 feet, the setback shall be reduced by five feet.

c. Setbacks to all other parts of the system shall be in compliance with the requirements in this Chapter and section 381.0065, Florida Statutes.

(b) INRB layers with Liner, no underdrain, shall be installed as in paragraph (a) above with the following variations:

1. The system drainfield shall be low-pressure dosed unless the professional engineer chooses another method demonstrated to provide adequate nitrification, and lift-dosing may be used provided the design calculations show that the entire distribution network will be charged with each dose.

2. Media layer 2 shall be enclosed beneath and on the lower 6-8 inches of all sides by an impermeable liner composed of polyvinyl chloride (PVC), high-density polyethylene (HDPE), ethylene propylene diene methylene (EPDM) or other material having a thickness of at least 30 mils and being certified by the manufacturer for a minimum lifetime of 30 years buried in contact with sewage. If a manufacturer will not certify the liner for a minimum of 30 years, the engineer of record must choose a liner based on the manufacturer’s product information regarding resistance to physical and chemical substances to which it will be subject over the thirty-year period. EPA-approved landfill liners may be considered by the engineer of record.

3. No portion of the liner or media layer 2 shall be within 18 inches of the absorption surface of the drainfield.
4. The lowest point of the liner or media layer shall be no less than 6 inches above the water table during the wettest season of the year. There shall be at least 6 inches of unsaturated slightly limited soil between the bottom of the liner and the seasonal high water table.

5. Media layers 1 and 2 shall extend beneath the entire drainfield absorption surface to a point at least 3.5 feet beyond the perimeter of any portion of the drainfield absorption surface and any other effluent release point. For repairs, the 3.5 feet dimension may be reduced incrementally to not less than 1.0 feet if necessary to comply with a setback or if physical room is unavailable. Maintaining the 3.5 feet dimension shall have a protection factor of 5 in determining the relative priority of competing factors in the application of rule 64E-6.015 Table V. No part of the liner shall be placed within 12 inches of the pump or treatment tank.

6. Media layer 1 shall comply with subparagraph (a)10. above.
7. Media layer 2 shall comply with subparagraph (a)11. above.
8. The department shall not require sampling although sampling may be required by the professional engineer, municipality or other state agency as necessary to comply with applicable regulatory requirements.

9. Where the system has a total required drainfield size over 1500 square feet, the design engineer shall address the potential for mounding of the effluent between the drainfield and the liner at the estimated sewage flow and will increase the separation between the drainfield and media layer 2 to ensure media layer 1 maintains no less than 18 inches of unsaturated soil beneath the drainfield. A four-inch diameter observation port shall be installed in the center of the liner to allow the liquid level of effluent contained within the bottom of the media liner to be monitored. The observation port shall be capped and lockable and installed within a protective surface cover. A toilet flange shall be securely attached to the bottom of the observation port to prevent the port from being inadvertently raised from its installed position. The observation port, including the flange, shall be perforated at the lowest elevation possible to allow accurate measurements. If installed within three feet of the sidewall of a bed or trench, the port shall be grouted to prevent effluent from flowing down the outer surface of the port to the media.

10. The perimeter of the liner, in feet, multiplied by the perimeter loading rate shall not be less than the estimated daily sewage flow for the system. The most restrictive soil texture between the elevation of the bottom of the drainfield and the elevation six inches below the bottom of the liner throughout the area of the installation and 24 inches beyond the perimeter of the liner shall be used to determine the media layer perimeter loading rate.

<table>
<thead>
<tr>
<th>Soil Texture</th>
<th>Perimeter Loading Rate (gal/ft/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coarse sand not associated with a seasonal water table of less than 48 inches; sand; and loamy coarse sand</td>
<td>5</td>
</tr>
<tr>
<td>Fine sand</td>
<td>4</td>
</tr>
<tr>
<td>Loamy sand; coarse sandy loam; and sandy loam</td>
<td>3</td>
</tr>
</tbody>
</table>

11. The professional engineer may specify methods to replenish media and remove spent media if the continued presence of such spent media appreciably reduces the efficacy of the process provided the methods do not compromise the efficacy of the system.

12. Drainfield repair shall not necessitate media layer 2 replacement provided the media has been in use for less than 10 years or if sampling within the previous 12 months shows denitrification at or above the target removal effectiveness for mean total nitrogen (TN) is a minimum of 65% for all INRB.

13. Any seams or penetrations through the liner shall be sealed in accordance with the liner manufacturer's instructions to prevent leakage for the life of the liner.

14. Setback distances to the liner, or media layers 1 and 2 extending to the absorption
The surface of the drainfield shall be reduced by the following:

a. Except for building foundations, vertical obstructions and pilings for elevated structures, where the required setback is \(\leq 5\) feet, the setback shall be reduced to one foot.

b. Where the required setback is \(\geq 10\) feet, the setback shall be reduced by five feet.

c. Setbacks to all other parts of the system shall be in compliance with the requirements in this Chapter and s. 381.0065, FS.

**Figure 2** INRB with Liner without underdrain

(c) INRB layers with Liner with underdrain, shall be installed as in paragraph (a) above with the following variations:

1. The system drainfield shall be low-pressure dosed unless the professional engineer chooses another method demonstrated to provide adequate nitrification. Lift-dosing may be used provided the design calculations to show that the entire distribution network will be charged with each dose.

2. The drainfield shall be installed and centered over media layer 1 which conforms to the textures and colors in subparagraph (a)10. Media layer 1 must extend at least 18 inches past the perimeter of the drainfield.

3. Below media layer 1, media layer 2 shall be installed and must extend at least 18 inches past the perimeter of the drainfield. Media layer 2 shall conform with subparagraphs (a)8. and (a)11., above.

4. An impermeable liner meeting the construction standards of subparagraphs (b)2. and (b)(13), above, shall be installed below media layer 2. The liner’s interior surface must extend to a point at least 18 inches past the perimeter of the drainfield, at which point the liner shall be directed upwards toward the ground surface maintaining contact with media layers 1 and 2, stopping at a point four to six inches below the level of the bottom of the drainfield. No portion of media layer 2 shall be less than 18 inches below the absorption surface of the drainfield. Media layer 2 with liner shall extend beneath the entire drainfield absorption surface and extend at least 18 inches beyond the perimeter of any portion of the drainfield absorption surface and any other effluent release point. No part of the liner shall be placed within 12 inches of the pump or treatment tank.

5. An underdrain shall be installed on top of and in contact with the interior surface of the bottom of the liner within media layer 2, and shall disperse to a separately sized, located and installed drainfield. The underdrain shall be designed to maximize effluent movement through media layer 2 into the underdrain. The transmission line from the underdrain to the separate drainfield shall be set to maintain saturation to the top of media layer 2. In order to maintain distribution as high as possible above the seasonal high water table and to maintain the shallowest depth to finished grade the transmission line must not have a slope exceeding \(1/8\) inch per foot when distributing the effluent to the separate drainfield.

6. Provided the effluent has passed vertically without pressure through media layer 1, the
professional engineer may specify the collection of the effluent and distribution to a drainfield that is separated from the seasonal high water table by no less than 6 inches and may be more than 30 inches below the ground surface, per the requirements of subparagraph (c)5.

7. The minimum thickness of media layer 2 as measured between the top of the underdrain and the top of the media shall be 7 inches.

8. Compliance with subparagraphs 64E-6.009(7)(b)8., 9., and 11.-14. is required.

The department shall not require sampling although sampling may be required by the professional engineer, municipality or other state agency as necessary to comply with applicable regulatory requirements.

9. The lowest point of the liner or media layer shall be no less than 6 inches above the water table at the wettest season of the year. There shall be at least 6 inches of unsaturated slightly limited soil between the bottom of the liner and the seasonal high water table.

10. Where the system has a total required drainfield size over 1500 square feet, the design engineer shall address the potential for mounding of the effluent between the drainfield and the liner at the estimated sewage flow and will increase the separation between the drainfield and media layer 2 to ensure media layer 1 maintains no less than 18 inches of unsaturated soil beneath the drainfield. A four-inch diameter observation port shall be installed in the center of the liner to allow the liquid level of effluent contained within the bottom of the media liner to be monitored. The observation port shall be capped and lockable and installed within a protective surface cover. A toilet flange shall be securely attached to the bottom of the observation port to prevent the port from being inadvertently raised from its installed position. The observation port, including the flange, shall be perforated at the lowest elevation possible to allow accurate measurements. If installed within three feet of the sidewall of a bed or trench, the port shall be grouted to prevent effluent from flowing down the outer surface of the port to the media.

11. The professional engineer may specify methods to replenish media and remove spent media if the continued presence of such spent media appreciably reduces the efficacy of the process provided the methods do not compromise the efficacy of the system.

12. Setback distances to the liner, or media layers 1 and 2 extending to the absorption surface of the drainfield shall be reduced by the following:
   a. Except for building foundations, vertical obstructions and pilings for elevated structures, where the required setback is ≤5 feet, the setback shall be reduced to one foot.
   b. Where the required setback is ≥10 feet, the setback shall be reduced by five feet.
   c. Setbacks to all other parts of the system shall be in compliance with the requirements in this Chapter and s. 381.0065, FS.

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Figure 3 – INRB with Liner with underdrain

(db) Prior to covering media layer 2, in addition to the inspections required in rule 64E-6.003, F.A.C., upon completion of the installation of the media layer 2 but before covering the media layer, a person installing or constructing the system shall notify the DOH county health department that the media layer 2 has been installed and shall have that portion of the system
inspected by the department. If the inspection of the media layer 2 is the initial inspection of the system, the initial inspection fee in paragraph 64E-6.030(1)(i), F.A.C., shall be paid. If an initial inspection occurred before the media layer 2 inspection, the reinspection fee in paragraph 64E-6.030(1)(j), F.A.C., shall be paid.

(c) Renumbered to (e) No change.

(d) Renumbered to (f) No change.

64E-6.009(8) Alternative system component and design approval – After innovative system testing is completed, requests for approval of system components and designs which are not specifically addressed in this chapter shall be submitted to the department's Bureau of Onsite Sewage Programs.

(a) No Change.

(b) In addition to those items listed in paragraph 64E-6.009(8)(7)(a), F.A.C., manufacturers of drip effluent disposal system distribution lines, emitters, and components shall apply for and obtain approval from the Bureau of Onsite Sewage Programs for specific model numbers or part numbers prior to inclusion of the components on any site-specific permit application. Manufacturer's of drip effluent disposal system components shall provide design and installation manuals for engineering and construction guidance. Design manuals shall include tables that detail flow rates vs. pressure and pressure loss per length(s) of distribution pipe.

(c) through (e) No Change.

(9)-(10) No Change.

(11) All materials incorporated herein may be obtained from the Bureau of Onsite Sewage Programs at www.MyFloridaEH.com or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida 32399-1713.

Rulemaking Authority 381.0065(3)(a) FS. Law Implemented 381.0065 FS. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.49, Amended 3-17-92, 1-3-95, Formerly 10D-6.049, Amended 11-19-97, 2-3-98, 3-22-00, 4-21-02, 6-18-03, 11-26-06, 6-25-09, 7-31-18_MM-DD-YY.
Issue Number: 19-01

Subject: Nitrogen-Reducing Media Lined Drainfields

Rule Sections: 64E-6.009(7)

Issue: The Passive Nitrogen Study provided at least one system that is simple enough and reliable enough to allow incorporation into the prescriptive portion of the rule. While DOH has adopted a liner less option, there should be other options with liners meeting the rule requirements, included in the rule regardless of cost. Therefore, the Department should include systems with liners.

Purpose and Effect: Allow owners to opt to install engineer-designed nitrogen-reducing media layers under the conventional drainfield and provides the prescriptive requirements for such an installation with or without liners.

Summary: Provides for an engineer-designed nitrogen-reducing liner beneath a conventional drainfield.

Date New: 12/6/2018
Date Initially Heard by TRAP: 2/28/2019
Date Tabled by TRAP: 
Date Initially Approved by TRAP: 2/28/2019
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Date of TRAP Final Recommendation: 4/23/2019
TRAP Final Recommendation: pass

Ready for Inclusion in Rule: YES
When aerobic treatment units are used for treating domestic and commercial sewage waste, each unit shall be installed, operated and maintained in conformance with the following provisions:

(1) Aerobic treatment units systems designed to treat up to 1500 gallons of sewage waste-per day shall be listed by a third party certifying program approved by the State Health Office. Aerobic treatment units shall be in compliance with at least one of the following standards: for Class I systems as defined by ANSI/NSF International Standard Number 40, revised April 2013, herein incorporated by reference; nitrogen reduction as defined by ANSI/NSF International Standard Number 245, revised April 2013, herein incorporated by reference; or onsite residential and commercial water reuse treatment systems as defined by ANSI/NSF Internation Standard Number 350, revised December 2012, herein incorporated by reference. An approved third party certifying program shall comply with the following provisions in order for units which it has certified to be approved for use in Florida:

(a) Be accredited by the American National Standards Institute.

(b) Have established procedures which send representatives to distributors in Florida on a recurring basis to conduct evaluations to assure that distributors of certified aerobic units are providing proper maintenance, have sufficient replacement parts available, and are maintaining service records.

(c) Notify the department State Health Office of the results of monitoring visits to manufacturers and distributors within 60 days of the conclusion of the monitoring. Approved distributors must be reported by the manufacturer to the certifying agency.

(d) Submit completion reports on testing for review by the State Health Office.

(e) Provide a registered certification mark or seal which must be affixed in a conspicuous location on the units it has certified. This mark or seal will alert persons evaluating or maintaining the unit that the unit is in compliance with the ANSI/NSF Standard appropriate for the application.

(2) The following additional requirements shall also apply to the construction, design, and operation of aerobic treatment units treating 1500 gallons per day or less:

(a) An appropriate mechanism shall be provided to make access ports vandal, tamper, and child resistant. Acceptable protection of openings shall consist of one or more of the following methods as specified by the tank manufacturer:

1. A padlock.
2. An “O” ring with twist lock cover requiring special tools for removal.
3. Covers weighing 65 pounds or more, net weight.
4. A hinge and hasp mechanism which uses stainless steel or other corrosion resistant fasteners to fasten the hinge and hasp to the lid and tank for fiberglass, metal, or plastic lids.

(b) A minimum of a 4 inch diameter sampling access port located between the treatment unit tank outlet and the drainfield.

(c) A visual and audio warning device shall be installed in a conspicuous location so that activation of such warning device will alert property occupants of aerobic unit malfunction or failure. All warning devices shall be wired separately from the aerobic unit so that disconnecting the aerobic unit from electricity will activate the warning device. If installed outside, the alarm shall be waterproof.

(d) Each unit shall be designed or equipped so that regardless of unusual patterns or frequencies of sewage flow into the system effluent discharged to the drainfield will be in compliance with the applicable standards of 64E-6.012(1) Class I effluent quality standards as defined by ANSI/NSF Standard 40.

(e) Minimum required treatment capacities for systems serving any structure, building or group of buildings shall be based on estimated daily sewage flows as determined from Table IV.
<table>
<thead>
<tr>
<th>Number of Bedrooms</th>
<th>Building Area in square feet</th>
<th>Minimum Required Treatment Capacity gallons per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 or 2</td>
<td>Up to 1200</td>
<td>400</td>
</tr>
<tr>
<td>3</td>
<td>1201-2250</td>
<td>500</td>
</tr>
<tr>
<td>4</td>
<td>2251-3300</td>
<td>600</td>
</tr>
</tbody>
</table>

For each additional bedroom or each additional 750 square feet of building area, or fraction thereof, treatment capacity shall be increased by 600 gallons.

### FOOTNOTES TO TABLE IV

1. Where the number of bedrooms and the corresponding building area in Table IV do not coincide, the criteria which results in the greatest required treatment capacity shall apply.

2. These figures assume that the aerobic system will be treating domestic strength sewage with CBOD₅ and suspended solids values typically not exceeding 300 and 200 milligrams per liter, respectively. For wastewaters with higher CBOD₅, higher suspended solids values, or for facilities that exhibit short-term hydraulic surge conditions, additional treatment or pre-treatment facilities shall be required when specified by design engineers, plant manufacturers, or by the DOH county health department.

(f) There shall be no bypass capability designed into the system which will allow waste to be discharged to the drainfield without undergoing all the treatment processes necessary to achieve the desired effluent quality. Bypassing, removing, or excluding any component or components of a system after the system has received final installation approval is prohibited.

(g) Effluent from an aerobic treatment unit shall be disposed of on the owner’s property in conformance with other requirements of this chapter except as provided for in paragraph 64E-6.012(2)(f), F.A.C. Effluent quality which is found to not meet its Class I standards as specified by ANSI/NSF Standard 40 shall be reported to the maintenance entity for correction within 10 working days.

(h) Units meeting Class I Standards as specified by ANSI/NSF Standard 40 shall receive consideration, via the variance review process, for use where daily domestic sewage flow limitations of Rule 64E-6.005, F.A.C., are exceeded or where a high level of sewage treatment is warranted. Also, for Class I units where slightly limited soil textures exist on a site, the required drainfield size may be reduced by 25 percent from the requirements in subsection 64E-6.008(5) or paragraph 64E-6.009(3)(d), F.A.C.

(i) A manufacturer, distributor or seller of aerobic treatment units shall furnish, to the State Health Office, in Microsoft Word document format, Portable Document Format (PDF) or other electronic format accepted by the Department, a copy of the completion reports and engineering drawings showing the design and construction details of all models of approved Class I units to be constructed or installed under the provisions of this rule. The State Health Office will forward these reports and drawings to each DOH county health department. No aerobic unit shall receive final installation approval until the unit is found to be in compliance with all provisions of this rule, including compliance with design and construction details shown on the engineering plans filed with DOH county health departments and the State Health Office.

(j) Manufacturers shall provide a listing of approved maintenance entities they have authorized to provide service in the state and shall demonstrate that the entire state is covered by at least one maintenance provider.
department a listing of all aerobic

ance and

 Comey within 24 hours after receipt of sample analysis results.

the maintenance entity or certified operator shall notify the DOH county health department by telephone or

later than the 15th of the next month following the semi

health department. Effluent quality samples for CBOD

41, F.A.C.,

system owner or lessee holding at minimum a Class D certification under the provisions of Chapter 61E12

certified operator who has been certified under the provisions of Chapter 61E12

maintenance agreement with a permitted aerobic unit maintenance entity which has at least a Class D state

licensed wastewater treatment plant operator, the owner or

operational requirements of subsection 64E

rule.

In Rule

consistently meeting, at minimum, secondary treatment

include an assessment of wastewater strength.

(b)

authorized maintenance entity, including review of their service records and maintenance agreements.

performance of aerobic treatment units. The DOH county health department shall also inspect each

of the owners who have refused to renew their maintenance agreement.

3. Provide that, if a private maintenance entity discontinues business, property owners who have

previously contracted with the discontinued maintenance service shall, within 30 days of the service

termination date, contract with an approved maintenance service and provide the DOH county health

department a copy of the newly signed maintenance agreement.

4. Provide that each aerobic unit is inspected by an approved maintenance entity at least two times

each year. Aerobic treatment units serving commercial establishments shall be inspected four times per

year. The maintenance entity shall furnish to the DOH county health department a listing of all aerobic

units inspected or serviced during the respective reporting period. As a minimum, reports shall indicate the

system owner or building lessee, the street address of the system, the date of system inspection or service

and a statement as to the maintenance or service performed. The maintenance entity shall also include a list

of the owners who have refused to renew their maintenance agreement.

(n) The DOH county health department shall, at least annually, inspect the maintenance and

performance of aerobic treatment units. The DOH county health department shall also inspect each

authorized maintenance entity, including review of their service records and maintenance agreements.

(3) An aerobic treatment unit used for treating domestic or commercial sewage flows in excess of 1500

gallons per day, or a combination of aerobic treatment units treating flows according to 64E-6.004(4)(a) or

(b), F.A.C., shall be designed and certified by an engineer licensed in the State of Florida. The design shall

include an assessment of wastewater strength. The certification shall state that the unit is capable of

consistently meeting, at minimum, secondary treatment standards for CBOD$_5$ and TSS established by DEP

in Rule 64E-6.025(12)(a) 62-600.420, F.A.C. In addition, the following requirements shall also be met:

(a) The drainfield system shall meet minimum setback and elevation requirements specified by this

rule.

(b) The owner or lessee of a system shall comply with the applicable safety, maintenance and

operational requirements of subsection 64E-6.012(2), F.A.C. Unless the system owner or lessee is a state

licensed wastewater treatment plant operator, the owner or lessee shall be required to have a system

maintenance agreement with a permitted aerobic unit maintenance entity which has at least a Class D state

certified operator who has been certified under the provisions of Chapter 61E12-41, F.A.C.

(c) A permitted aerobic unit maintenance entity with a minimum Class D certified operator, or a

system owner or lessee holding at minimum a Class D certification under the provisions of Chapter 61E12-

41, F.A.C., shall collect effluent quality samples and submit the sample analysis reports to the DOH county

health department. Effluent quality samples for CBOD$_5$, and suspended solids and fecal coliform shall be

collected at least semi-annually and such samples shall be analyzed by a department-approved laboratory.

(d) Written sample analysis reports shall be submitted to the DOH county health department by no

later than the 15th of the next month following the semi-annual sampling period. However, if the sample

analysis for CBOD$_5$ or suspended solids exceeds secondary treatment standards by more than 100 percent,

the maintenance entity or certified operator shall notify the DOH county health department by telephone or

in person within 24 hours after receipt of sample analysis results.
(d) The DOH county health department shall monitor the maintenance and performance of aerobic treatments units as required by paragraph 64E-6.012(2)(m), F.A.C.

(4) No aerobic treatment unit shall be serviced or repaired by a person or entity engaged in an aerobic treatment unit maintenance service until the service entity has obtained an annual written permit issued on Form DH 4013 from the DOH county health department in the county where the service company is located. Each service entity shall employ at least one plumbing contractor licensed under Section 489.105(3)(m), F.S., septic tank contractor registered under Part III of Chapter 489, F.S., or a state-licensed wastewater treatment plant operator, who is responsible for maintenance and repair of all systems under contract. Application for a Maintenance Service Permit, Form DH 4066, 02/10, herein incorporated by reference, shall be made to the DOH county health department and shall contain the following information:

(a) Evidence that the maintenance entity possesses a manufacturer’s maintenance and operations manual and has received training from the manufacturer in proper installation and service of the unit and has received written approval from the manufacturer to perform service on their units. The manual shall contain detailed instructions on proper operation and maintenance procedures, a replacement parts list for all models being installed and maintained, a statement giving the capabilities of each unit, instructions on how to detect a malfunctioning unit and what to expect from a properly functioning unit.

(b) A signed statement from the applicant attesting that the applicant has adequate staff, possesses proper equipment and has sufficient spare structural and mechanical parts and components to perform routine system monitoring and servicing and is able to make a service response within 36 hours after notification of the need for emergency repairs.

(c) Payment of $25.00 to the DOH county health department per annum for the aerobic treatment unit maintenance service permit.

(5) Emergency service necessary to prevent or eliminate an imminent sanitary nuisance condition caused by failure of a mechanical component of any aerobic treatment unit shall be reported by the approved aerobic unit maintenance entity, in writing, to the DOH county health department no later than 5 working days after the date of the emergency service.

(6) All materials incorporated herein may be obtained from the Bureau of Onsite Sewage Programs at www.MyFloridaEH.com or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida 32399-1713.

Rulemaking Authority 381.0065(3)(a), 489.553(3) FS. Law Implemented 381.0065, Part I 386 FS. History—New 3-17-92, Amended 1-3-95, Formerly 10D-6.0541, Amended 11-19-97, 4-21-02, 6-18-03, 5-24-04, 11-26-06, 6-25-09, 4-28-10._____.
Issue Number: 16-03

Subject: NSF 245 Nitrogen reducing ATU's

Rule Sections: 64E-6.012

Issue: NSF has an approval protocol for Nitroden-reducing ATU's that is not incorporated into our rule. Also, our existing NDF references are out of date. The sizing of ATU's has been out-of-sync with the system flows for years requiring ATU's that are sized larger than the actual flows.

Purpose and Effect: incorporate NSF 245 into the rule and updates the references to the NSF standards that ATU's are required to meet. Also a disparity in sizing ATU's is addressed to allow ATU's that are rated for the anticipated flow.

Summary: The proposed changes will update the references to the ATU Standards, incorporate NSF 245 References,

Date New: 11/10/2016
Date Initially Heard by TRAP: 12/9/2016
Date Tabled by TRAP: 3/31/2017
Date Initially Approved by TRAP: 12/9/2016
Date Heard by Variance Committee: 3/2/2017
Date of TRAP Final Recommendation: 4/21/2017
TRAP Final Recommendation: approve

Ready for Inclusion in Rule: YES
64E-6.009 Alternative Systems.

(1) through (4) No change

(5) Drip irrigation systems – Drip irrigation systems may, at the option of the applicant, be used in lieu of a mineral aggregate drainfield. Drip irrigation systems shall meet all requirements of this chapter except as noted below.

(a) Drip irrigation systems shall receive effluent from an approved aerobic treatment unit or a performance-based treatment system designed to meet at least secondary treatment standards for CBOD₅ and TSS, and shall meet the following requirements:

1. through 19. No change

20. All onsite sewage treatment and disposal systems that include a drip effluent disposal system and aerobic treatment unit or performance-based treatment system shall have a biennial operating permit, a maintenance contract with an approved aerobic treatment system maintenance entity, and shall be inspected in accordance with the requirements of this chapter.

21. through 25. No change

26. Except for slopes required to meet the stabilization requirements of paragraph 64E-6.009(3)(f), F.A.C., the area over the drip irrigation drainfield shall be stabilized in the same way or vegetated with plant species specified by the design engineer. The species specified shall not include trees.

27. For drip emitter lines using non-pressure-compensating emitters, the maximum elevation difference shall be four inches between the highest and the lowest emitter in any individual line segment between the supply and the return line. For drip emitter lines using pressure-compensating emitters, there shall be no more than 18 inches of elevation difference between the highest and lowest emitter in any line. Neither property slope nor drip emitter line slope shall result in the depth of cover over the drip emitter lines to be outside of the range permitted in 64E-6.009(5)(a).

(b) No change

(6) through (10) No change

Rulemaking Authority 381.0065(3)(a) FS. Law Implemented 381.0065 FS. History–New 12-22-82, Amended 2-5-85, Formerly 10D-6.49, Amended 3-17-92, 1-3-95, Formerly 10D-6.049, Amended 11-19-97, 2-3-98, 3-22-00, 4-21-02, 6-18-03, 11-26-06, 6-25-09.
Issue Number: 16-01

Subject: Drip Emitter System Slope

Rule Sections: 64E-6.009(5)(a)

Issue: In the absence of specific language addressing the maximum permissible slope for drip emitter lines, the standard "level to 1 inch per 10 feet" could apply. This is not an appropriate restriction for the pumped emitter system and certainly is not necessary for pressure-compensating emitters. This issue seeks to remedy that by creating sub-paragraph 27. and also cleans up some minor language issues in sub-paragraph 20. and 26.

Purpose and Effect: provide a broader range of allowable slopes based on the manufacturer's recommendations differentiating between the type of emitter being used in the installation. May provide an alternative to drop boxes for sloping lots.

Summary: This proposal eases the requirements for drain line slope for drip emitter systems.

Date New: 2/11/2016
Date Initially Heard by TRAP: 8/31/2016
Date Tabled by TRAP: 8/31/2016
Date Initially Approved by TRAP: 8/31/2016
Date Heard by Variance Committee: 12/1/2016
Date of TRAP Final Recommendation: 12/9/2016
TRAP Final Recommendation: APPROVE

Ready for Inclusion in Rule: YES
64E-6.009 Alternative Systems.
When approved by the DOH county health department, alternative systems may, at the discretion of the applicant, be utilized in circumstances where standard subsurface systems are not suitable or where alternative systems are more feasible. Unless otherwise noted, all rules pertaining to siting, construction, and maintenance of standard subsurface systems shall apply to alternative systems. In addition, the DOH county health department may, using the criteria in subsection 64E-6.004(4), F.A.C., require the submission of plans prepared by an engineer licensed in the State of Florida, prior to considering the use of any alternative system.

(1) through (6) No change

(7) In-ground Nitrogen-reducing Biofilters – Nitrogen-reducing media layers, also referred to as media layers, may be placed beneath the drainfield provided the resulting system meets all requirements in this chapter except as noted in this subsection. The systems installed under this subsection shall be designed by an engineer with a background in wastewater engineering, licensed by the state of Florida, as part of a planned pilot project to monitor and verify system performance. Upon receipt of a permit application, the local county health department shall contact the Onsite Sewage Program office engineer to determine if the design can be approved as part of the pilot study. There shall be the Standard Layered Nitrogen Reducing System, and three variants, all of which shall be part of the planned pilot project. The pilot project shall comply with the standards found in this section. Once five to ten Standard Layered Nitrogen Reducing Systems have been installed as part of the pilot project and meet the standards of this section, additional Standard Layered Nitrogen Reducing Systems can be installed that are not required to be part of the study.

(a) The Standard Layered Nitrogen Reducing System, Figure 1, shall be installed as follows:

1. The system drainfield shall be low-pressure dosed unless the designer chooses another method demonstrated to provide adequate nitrification. Lift-dosing may be used provided the design calculations to show that the entire distribution network will be charged with each dose. Only approved drainfield materials per 64E-6.014 or 64E-6.009, F.A.C. shall be used.

2. The natural and existing soil profile throughout the area of the drainfield shall indicate slightly limited soils extending from the ground surface to at least 6 inches below the bottom of the nitrogen-reducing media liner.

3. The media layer shall be no less than 12 inches thick.

4. The media layer shall be enclosed beneath and on the lower 6-8 inches of all sides by an impermeable liner composed of PVC, HDPE, EPDM or other material having a thickness of at least 30 mils and being certified by the manufacturer for a minimum lifetime of 30 years buried in contact with sewage.

5. No portion of the liner or media layer shall be within 18 inches of the infiltrative surface of the drainfield.

6. The lowest point of the liner or media layer shall be no less than 6 inches above the water table at the wettest season of the year. There shall be at least 6 inches of unsaturated slightly limited soil between the bottom of the liner and the seasonal high water table.

7. The media layer with liner shall extend beneath the entire drainfield absorption surface to a point at least 3.5 feet beyond the perimeter of any portion of the drainfield absorption surface and any other effluent release point. For repairs, the 3.5 feet dimension may be reduced to 1.0 feet if necessary to comply with a setback or if physical room is unavailable. Maintaining the 3.5 feet dimension shall have a protection factor of 5 in determining the relative priority of competing factors in the application of rule 64E-6.015 Table V. No part of the liner shall be placed within 18 inches of the pump or treatment tank.

8. An example of nitrogen-reducing media is lignocellulosic material such as chips or shavings of untreated lumber, blended urban waste wood mulch, yellow pine sawdust, or 2-inch to 3-inch wood chips. The nitrogen-reducing media shall be demonstrated in Florida-based studies to be effective at providing a substrate for denitrification.
9. The nitrogen-reducing media shall comply with the provisions of 64E-6.0151, FAC.

10. The soil layer between the infiltrative surface of the drainfield and the media layer shall extend beneath the entire drainfield absorption surface and to a point at least 3.5 feet beyond the perimeter of any portion of the drainfield absorption surface and any other effluent release point and shall consist of fine aggregate having a texture of sand or fine sand but excluding:
   a. those having color values less than or equal to 4 with chromas less than or equal to 3; or
   b. those with colors on the gley charts.

11. The media layer shall be a combination of nitrogen-reducing media and fine aggregate, which shall be composed of 40-60% nitrogen-reducing media by volume, with the remainder to be fine aggregate. The media layer shall not be installed when the observed water table is at or above the lowest depth of the media layer. The fine aggregate to be mixed with the nitrogen-reducing media shall be one or more of the following textures: coarse sandy loam, sandy loam, loamy sand, fine sandy loam, very fine sand, loamy fine sand, and loamy very fine sand; and shall conform to the colors in subparagraph (a)10. above. The media layer shall be thoroughly mixed while the soil is in a non-plastic state, with the constituents uniformly distributed when installed.

12. The department shall not require sampling following the pilot verification project although sampling may be required by the designer, municipality or other state agency as necessary to comply with applicable regulatory requirements.

13. Where the system has a total required drainfield size over 1500 square feet, the design engineer shall address the potential for mounding of the effluent between the drainfield and the liner at the estimated sewage flow and will increase the separation between the drainfield and the media to ensure no less than 18 inches of unsaturated soil beneath the drainfield. A four-inch diameter observation port shall be installed in the center of the liner to allow the liquid level of effluent contained within the bottom of the media liner to be monitored. The observation port shall be capped and lockable and installed within a protective surface cover. A toilet flange shall be securely attached to the bottom of the observation port to prevent the port from being inadvertently raised from its installed position. The observation port, including the flange, shall be perforated at the lowest elevation possible to allow accurate measurements. If installed within three feet of the sidewall of a bed or trench, the port shall be grouted to prevent effluent from flowing down the outer surface of the port to the media.

14. The perimeter of the liner, in feet, multiplied by the perimeter loading rate shall not be less than the estimated daily sewage flow for the system. The most restrictive soil texture between the elevation of the bottom of the drainfield and the elevation six inches below the bottom of the liner throughout the area of the installation and 24 inches beyond the perimeter of the liner shall be used to determine the media layer perimeter loading rate.

<table>
<thead>
<tr>
<th>Soil Texture</th>
<th>Perimeter Loading Rate (gal/ft/day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coarse sand not associated with a seasonal water table of less than 48 inches; sand; and loamy coarse sand</td>
<td>5</td>
</tr>
<tr>
<td>Fine sand</td>
<td>4</td>
</tr>
<tr>
<td>Loamy sand; coarse sandy loam; and sandy loam</td>
<td>3</td>
</tr>
</tbody>
</table>

15. Prior to the department’s construction inspection, the designer shall provide an as-built cross section and plan view of the installed nitrogen-reducing media liner system components.

16. The designer may specify methods to replenish media and remove spent media if the continued presence of such spent media appreciably reduces the efficacy of the process provided the methods do not compromise the efficacy of the system.
17. Drainfield repair shall not necessitate media replacement provided the media has been in use for less than 10 years or if sampling within the previous 12 months shows denitrification at or above the target level for mean total nitrogen (TN) removal efficiency which shall be a minimum 65%.

18. Any seams or penetrations through the liner shall be sealed in accordance with the liner manufacturer’s instructions to prevent leakage for the life of the liner.

19. Setback distances to the liner, denitrification media or soil material directly above denitrification media extending to the infiltrative surface of the drainfield shall be reduced by the following:

   a. Except for building foundations, vertical obstructions and pilings for elevated structures, where the required setback is ≤5 feet, the setback shall be reduced to one foot.

   b. Where the required setback is ≥10 feet, the setback shall be reduced by five feet.

   c. Setbacks to all other parts of the system shall be in compliance with the requirements in this Chapter and s. 381.0065, FS.

Figure 1 Standard Layered Nitrogen Reducing System

(b) Variants to the Standard Layered Nitrogen Reducing System shall be allowed in compliance with the requirements of this subsection. The target level for mean total nitrogen (TN) removal efficiency shall be a minimum of 65%, however if the Standard Layered Nitrogen Reducing System achieves a mean total nitrogen removal efficiency of greater than 65%, all variants will be required to reach that same level in order to continue to be installed after the pilot system testing. Where a variant does not modify a standard found in paragraph (a), the standard found in paragraph (a) shall apply.

1. Variant One, Figure 2, shall be installed as follows:

   a. The drainfield shall be installed over sand fill material that is at least 18 inches thick and conforms to the textures and colors in 64E-6.009(7)(a)10, and shall extend at least one foot past the perimeter of the drainfield. The drainfield shall be centered above the sand fill area.

   b. Below the layer required in 1.a., there shall be a media layer that is at least 12 inches thick and extends beneath the entire drainfield absorption surface and extends at least 24 inches beyond the perimeter of any portion of the drainfield absorption surface and any other effluent release point. The media layer shall also extend upward along the boundary of the sand fill material to a point four to six inches below the bottom of the drainfield. The drainfield shall be centered above the media layer, The media layer shall conform with 64E-6.009(7)(a)8., and 64E-6.009(7)(a)11. The media layer shall not be installed when the observed water table is at or above the lowest depth of the media layer. The bottom of the media layer shall be at least 6 inches above the wet season water table.
c. This variant does not include a liner beneath the denitrification media. The samples for this variant shall be collected via
lysimeter or by other method agreed to by the design engineer and the Onsite Sewage Program office engineer.

Figure 2 – Variant One

2. Variant Two, Figure 3, shall be installed as follows:

a. The drainfield shall be installed over sand fill material that is at least 18 inches thick and conforms to the textures and
colors in 64E-6.009(7)(a)10., and extends at least 18 inches past the perimeter of the drainfield. The drainfield shall be centered
above the sand fill area.

b. Below the layer required in 2.a., there shall be a media layer that is at least 12 inches thick and extends at least 18 inches
past the perimeter of the drainfield. The media layer shall conform with 64E-6.009(7)(a)8. and 64E-6.009(7)(a)11.

c. An impermeable liner meeting the construction standards of 64E-6.009(7)(a)4. shall be installed below the
denitrification media which extends to a point at least 18 inches past the perimeter of the drainfield, at which point the liner
shall be directed upwards toward the ground surface maintaining contact with the layers described in 2.a. and b., stopping at a
point four to six inches below the level of the bottom of the drainfield. No portion of the liner or media layer shall be less than
18 inches below the infiltrative surface of the drainfield. The media layer with liner shall extend beneath the entire drainfield
absorption surface and extend at least 18 inches beyond the perimeter of any portion of the drainfield absorption surface and
any other effluent release point. No part of the liner shall be placed within 18 inches of the pump or treatment tank.

d. An underdrain shall be installed on top of and in contact with the interior surface of the bottom of the liner within the
media layer, and shall disperse to a separately sized, located and installed drainfield. The underdrain shall be designed to
maximize effluent movement through the lignocellulosic-soil denitrification media into the underdrain. The transmission line
from the underdrain to the separate drainfield shall be set to maintain saturation to the top of the media layer.

e. Provided the effluent has passed vertically without pressure through at least 24 inches of unsaturated soil, the designer,
if an engineer, may specify the collection of the effluent and distribution to an absorption drainfield that is separated from the
seasonal high water table by no less than least 6 inches and may be more than 30 inches below the ground surface. Minimum
slope from previous components shall be used to maintain distribution as high as possible above the seasonal high water table.

f. The minimum thickness of the media layer between the top of the underdrain and the top of the media shall be 7 inches.
Figure 3 – Variant Two

3. Variant Three, Figure 4, shall be installed as follows:

a. The drainfield shall be installed over sand fill material conforming to the textures and colors in 64E-6.009(7)(a)10. that is at least 18 inches thick and that extends at least one foot past the perimeter of the drainfield. The drainfield shall be centered above the sand fill area.

b. Below the layer required in 3.a., there shall be a media layer that is at least 12 inches thick and extends at least 2 feet past the perimeter of the drainfield and at least 12 inches past the perimeter of the layer required in 3.a. The media layer shall conform with 64E-6.009(7)(a)8. in its entirety when installed by itself, or it shall be in conformance with 64E-6.009(7)(a)11.

c. An impermeable liner meeting the construction standards of 64E-6.009(7)(a)4. shall be installed along the sidewalls of the layer required in 3.a. which shall begin 4-6 inches below the bottom of the drainfield, and shall extend downward 4 to 6 inches into the layer required in 3.b.

d. An impermeable liner shall be installed below the layer required in 3.b, and shall extend upwards along the perimeter of denitrification media layer terminating at the top of the layer required in 3.b.

e. An additional three to six inches of denitrification media shall be placed in the area between the two liners that is above the top of the lowest liner in order to facilitate effluent movement out of liner.

f. No portion of the liner in specified 3.d. or media layer shall be within 18 inches of the infiltrative surface of the drainfield. The media layer with liner shall extend beneath the entire drainfield absorption surface and extend at least 2 feet beyond the perimeter of any portion of the drainfield absorption surface and any other effluent release point. No part of the liner shall be placed within 18 inches of the pump or treatment tank.

g. The system shall comply with the perimeter loading provisions of 64E-6.009(7)(a)14. calculated at the outermost liner.

h. Sample collection points shall include the region between the two liners at an elevation 6 to 8 inches above the bottom of the liner described in 3.d.
(c) Planned pilot system testing shall be required for no less than five and up to ten systems of the Standard Layered Nitrogen Reducing System as well as each of the variants. The installer of these specific systems shall notify the local county health department and the Onsite Sewage Program office as early as feasible, but not less than 48 hours prior to any construction activities. A variant system design shall be installed and monitored in conformance with this subsection prior to the variation being allowed for unlimited use in the state.

(d) For the pilot program study, the four system types: Standard Layered Nitrogen Reducing System, Variant One, Two and Three, shall each have a monitoring plan acceptable to the Florida Department of Environmental Protection and the Onsite Sewage Program office. The monitoring plan for any system type shall be established prior to any construction permit being issued for a system of that type. The accepted monitoring plan shall be incorporated into the design and permit for each individual system. The monitoring plan shall include:

1. Monitoring locations and devices shall allow for the measurement of liquid levels and obtaining samples at the following locations as a minimum requirement: prior to entering the drainfield, prior to entering the denitrifying media, after leaving the denitrifying media, and in shallow groundwater influenced by the effluent. Except for Variant 2, at least six sampling sites for effluent after leaving the media layer shall be located immediately adjacent to and along the outside perimeter of the media layer, to collect samples from a depth that is most likely to directly distribute effluent from the media layer, and shall include the following locations:
   a. the midpoint, plus or minus one foot, of the media layer along its shortest dimension as well as its opposite side
   b. a distance equal to 1/3 and 2/3 of the longest dimension of the media layer, plus or minus one foot, as well as the opposite side.

   Variant 2 sampling shall be from a port installed in the line carrying the effluent from the underdrain to the separately located drainfield. Sampling ports shall be capped and lockable which shall be locked closed at all times when sampling is not being performed, and shall be installed within a protective surface cover. The designer shall include these in the system construction application documentation. An estimation method for sewage flow through the system shall be included.

2. Sampling procedures and analytical methods. Methods shall follow Florida Department of Environmental Protection standard operating procedures, unless alternates are specified and approved by the Onsite Sewage Program office. Each sampling event shall obtain water quality samples, and field measurements, such as flow, electricity use, operational conditions, occupancy of the establishment, water levels, specific conductance, dissolved oxygen, and pH.

3. The analytical parameters for sample analysis at the appropriate location for each sampling event shall include at least concentrations of total nitrogen, the sum of total Kjeldahl nitrogen, and nitrite/nitrate-nitrogen, and an analyte that will assess...
dilution. In addition, dissolved oxygen, CBOD5, TSS, and fecal coliform shall be determined in the effluent leaving the
denitrifying media.

4. Identification and qualifications of the entities that will perform the monitoring and sample collection, and the current
certification of the laboratory analyzing the samples by the National Environmental Laboratory Accreditation Program.

5. Each system shall be monitored and sampled at intervals of at least two and up to four months for at least one year while
in use. At a minimum, four successful sampling events shall be reported for each pilot system. A successful sampling event is
defined as one where all the required analytes are reported at each sampling location. Monitoring devices to facilitate long-term
monitoring shall be installed when the system is constructed and left in place after the pilot phase.

6. The monitoring entity shall forward the monitoring results at least quarterly to the DOH county health department, the
Onsite Sewage Program office and the Florida Department of Environmental Protection for review. The quarterly time period
shall begin when the system is given final approval, and the report shall be supplied not later than two weeks after the
following quarter begins.

7. Within two weeks after the end of the pilot project the information listed in 64E-6.0295(1)(a) through (f), and (i) shall
be provided to the Onsite Sewage Program Office for evaluation. Those systems that do not perform to the average nitrogen
removing levels of the standard layered nitrogen reduction system shall not be allowed for installation after the pilot project.

(e) Repairs of systems incorporating media layers shall be re-designed by an approved entity and must meet the current
standard for nitrogen reduction. The provisions of 64E-6.003(3) shall not apply to repair of systems that include media layers,
nor shall repairs be allowed per 64E-6.015(3).

(f) After the completion of the pilot verification project, subsequent systems shall be designed by an engineer with a
background in wastewater engineering, licensed by the State of Florida or, if not precluded by Rule 64E-6.004(4), by a master
septic tank contractor. The master septic tank contractor shall have successfully passed a department-approved course in the
installation of alternative nitrogen-reducing systems and have installed at least 5 of these systems that were designed by an
engineer. The system designs shall be in accordance with the design criteria that are successfully demonstrated in the pilot
verification project. The coursework shall comprise classroom and field exercises to include, at a minimum, the following
topics:

1. Complete system design and specifications, materials to be used, to include all system components and their proper
alignment, and use of benchmarks during installation and inspection of the system, including lignocellulosic and other material
sourcing, specifications and proper mixing with appropriate soil textures to form the required media layers.

2. Compaction of lignocellulosic material or media layers during construction.

3. System construction methods, including vertical and horizontal liner installation and placement issues and techniques;
proper alignment of system components.

4. Repairing liner defects or flaws in accordance with manufacturer’s prescribed methodology.

5. Sampling device materials, construction, installation and monitoring methods and sampling techniques.

(g) Any system installed as part of the planned pilot project shall not be required by the department to be modified if the
system is found to be reducing nitrogen at a lower level than designed, however if the system fails it shall be repaired in
accordance with (e). This statement shall be included as part of the notice required in (j).

(h) Notwithstanding the requirement that all system drainfields in the pilot program shall be low-pressure dosed or use
another method by which adequate nitrification is achieved, where the applicant includes a signed and dated written request as
part of the system application that their engineer design a system which uses gravity to distribute the sewage to the drainfield,
said design will be allowed in conformance with the following requirements, that are in addition to the standards in this
subsection. A copy of the written requests shall be copied to the Onsite Sewage Program office engineer.

1. The Standard Layered Nitrogen Reducing System, as well as each of the variants, shall allow for an additional five to ten systems to be designed using gravity flow to distribute flow to the drainfield.

2. Where gravity distribution is used, design criteria shall include a method to observe effluent distribution and absorption surface usage for each drainfield line beginning at the point of effluent distribution in the drainfield and ending at the end of each drainfield line, with observations to be taken at equidistant intervals not to exceed 20 feet. The method shall be provided as part of the system design. Any ports used for visual observation shall be capped and lockable and installed within a protective surface cover. Ports shall be kept in a closed and locked position when direct visual observations are not being made.

(i) The engineer shall inspect the system concurrent with or prior to the department inspection. Final system approval shall not be granted until the engineer has supplied a report to the department stating the system has been installed in conformance with permitting requirements.

(j) Final installation approval shall not be granted until the county health department has confirmed that the property owner has executed and recorded in the public property records at the county courthouse, a written notice that informs all subsequent property owners of the use of the nitrogen-reducing media onsite system that may require special repair or maintenance procedures. The notice shall include the department’s construction permit number for the system, and that additional information may be obtained by contacting the local county health department.

(7) through (10) Renumber as (8) through (11) No change

Rulemaking Authority 381.0065(3)(a) FS. Law Implemented 381.0065 FS. History–New 12-22-82, Amended 2-5-85, Formerly 10D-6.49, Amended 3-17-92, 1-3-95, Formerly 10D-6.049, Amended 11-19-97, 2-3-98, 3-22-00, 4-21-02, 6-18-03, 11-26-06, 6-25-09, ____.
Issue Number: 15-02

Subject: Nitrogen-Reducing Media Lined Drainfields

Rule Sections: 64E-6.009

Issue: The Passive Nitrogen Study provided at least one system that is simple enough and reliable enough to allow incorporation into the prescriptive portion of the rule. This is the most simple of them.

Purpose and Effect: allow owners to opt to install engineer-designed nitrogen-reducing media layers under the conventional drainfield and provides the prescriptive requirements for such an installation.

Summary: Provides for engineer-designed nitrogen-reducing liner beneath a conventional drainfield.

Date New: 8/27/2015
Date Initially Heard by TRAP: 10/22/2015
Date Tabled by TRAP: 8/31/2016
Date Initially Approved by TRAP: 12/9/2016
Date Heard by Variance Committee: 3/2/2017
Date of TRAP Final Recommendation: 3/31/2017
TRAP Final Recommendation: Approve

Ready for Inclusion in Rule: YES
64E-6.001 General.

(1) The provisions of Part I of this chapter shall apply to all areas of the state except where specific provisions of law or other parts of this chapter provide a specific exemption or modification to those provisions. The provisions of this chapter must be used in conjunction with Chapter 381, Part III, Chapter 489, F.S, and the Interagency Agreement Between The Department of Environmental Protection and The Department of Health for Onsite Sewage Treatment and Disposal Systems, September 10, 2001, herein incorporated by reference.

(2) through (7) No change

Rulemaking Authority 381.0065(3)(a), 489.553(3), 489.557(1) F.S. Law Implemented 381.0065, 381.0067, 386.041, 489.553 FS. History – New 12-22-82, Amended 2-5-85, Formerly 10D-6.41, Amended 3-17-92, 1-3-95, 5-14-96, 2-13-97, Formerly 10D-6.041, Amended 11-19-97, 2-3-98, 3-22-00, 9-5-00, 5-24-04, 11-26-06, 6-25-09, 4-28-10.
Issue Number: 10-21

Subject: DEP/DOH Interagency Agreement

Rule Sections: 64E-6.001

Issue: The interagency agreement contains procedures that can affect the way that establishments are regulated. It has never been incorporated by rule.

Purpose and Effect: incorporate the DEP/DOH interagency agreement.

Summary: This proposal incorporates the DEP/DOH interagency agreement.

Date New: 11/9/2010
Date Initially Heard by TRAP: 12/2/2010
Date Initially Approved by TRAP: 12/2/2010
Date Heard by Variance Committee: 7/7/2011
Date of TRAP Final Recommendation: 10/11/2011
TRAP Final Recommendation: approve

Ready for Inclusion in Rule: YES
64E-6.015 Permitting and Construction of Repairs.

(1) No person shall cause or allow repair of a system without first applying for and receiving a construction permit. Form DH 4015 shall be used for permit application submission. An application shall be completed in full, signed by the owner or the owner’s agent, and accompanied by all required exhibits and fees. The application shall include:

(a) A site plan showing property dimensions, the existing and proposed system configuration and location on the property, the building location, potable and non-potable water lines within the existing and proposed drainfield repair area, the general slope of the property, property lines and easements, any obstructed areas, any private or public wells, or any surface water bodies and stormwater systems within a distance of the current required setbacks of Table V plus 25 feet to the existing or proposed repair system or relocation of the drainfield system.

(b) An Existing System and System Repair Evaluation completed on Form DH 4015. A signed tank certification from a registered septic tank contractor, state-licensed plumber, certified EH professional, or master septic tank contractor providing all tank information required on the form including the certification statement, may be submitted for that portion of the form.

The existing drainfield type shall be described.

(c) A site evaluation completed on Form DH 4015. Elevation of the proposed system site must be consistent with the “existing grade” elevation on the Existing System and System Repair Evaluation submitted. Soil textures and wettest season water table elevations must be documented within the existing and proposed drainfield areas. Any conditions or obstructions, such as roof drains, patios, parking areas, or pools, which may impact the system design or function shall be noted.

(d) When available, water use records for the previous 24 months.

(e) When a repair may be performed using any method other than drainfield addition or replacement, the following additional permit application information shall be submitted to the county health department:

1. The process used to repair the system. Examples include high-pressure water jetting of drainlines and high-pressure injection of air alongside the drainfield. The manufacturers recommended method for product use, quantities and concentration of product, shall be included in this information.

2. Any chemical compound to be introduced into the system in an effort to repair the system shall be identified by chemical composition or trade name, including the concentration and quantity of product used. The method of product introduction shall be stated. For example, product introduced through the distribution box.

3. Any repair method proposed which intends to physically disrupt the absorption surface shall include a diagram of the drainfield system with the locations where the absorption surface will be disrupted. The depth of each disruption shall be noted at each location.

(2) When the latest date of new installation or modification of the system requiring repair is before January 1, 1983, and the absorption surface of the drainfield is within 12 inches of the wettest season high water table, the existing drainfield shall be either disconnected from the tank or removed. A replacement drainfield shall be installed at least 12 inches above the wettest season water table. When the original installation date of the system requiring repair is on or after January 1, 1983, and the absorption surface of the drainfield is within 24 inches of the wettest season high water table, the existing drainfield shall be either disconnected from the tank or removed. A replacement drainfield shall be installed at least 24 inches above the wettest season water table. A replacement drainfield shall not be installed over or within two feet of any remaining portion of the existing disconnected drainfield.

(3) Repair permits shall be valid for 90 days from the date of issuance. However, if the system is maintained to not create a sanitary nuisance, a repair permit shall be extended for one 90 day period.

(4) Aggregate and soil in spoil material from drainfield repairs shall not be used in system repair in any manner. Undamaged drainfield units, pipes and mechanical components may be reused on the original site. Any spoil material taken off site shall be disposed of in a permitted landfill or shall be limed and stockpiled for at least 30 days to prevent a sanitary nuisance. Offsite spoil material stockpile areas shall meet the prohibition requirements of subsection 62-701.300(2), F.A.C. The resulting lime-treated material shall not be used for drainfield repair, or construction of any onsite sewage treatment and disposal system. Any use of the lime treated material shall be in a manner that does not cause a violation of Chapter 386 F.S., or impair groundwater or surface water. Mineral aggregate and soil in spoil material may, at the option of the septic tank contractor and the property owner, be buried on site if limed before burial. Lime amount must be sufficient to preclude a sanitary nuisance. The separation between the wettest season water table and the spoil material shall be no less than the separation required between the wettest season water table and the replacement drainfield. Setbacks for buried spoil material shall be no less than the setbacks required for the replacement drainfield. A minimum of six inches of slightly or moderately limited soil shall cover the spoil material and shall extend to at least five feet around the perimeter of the burial site.

(5) Any failing system shall, at a minimum, be repaired in accordance with the following criteria:

(a) System repairs shall comply with minimum setbacks and separations as specified in Rule 64E-6.005, F.A.C. If current required setbacks and separations cannot be met, lesser setbacks as specified in Table V shall be maintained. For repairs only, if current required setbacks given below cannot be attained, absolute minimum setbacks shall be met. When site conditions exist which allow either absolute or current required setbacks to various features, current required setbacks shall be maintained from features with the highest protection factor. Setbacks to features with lower protection factors shall be reduced to the maximum setback or separation attainable, with no less than the absolute minimum setback allowed. A standard gravity flow system is to be used when possible to achieve the appropriate separations of absorption surface to seasonal high water and effective soil depth.
<table>
<thead>
<tr>
<th>Permit Date of Original System</th>
<th>Description of Setback (Separation)</th>
<th>Protection Factor</th>
<th>Current Required Setback</th>
<th>Absolute Minimum Setback</th>
</tr>
</thead>
<tbody>
<tr>
<td>to 1-1-72</td>
<td>Potable Well</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bottom of Drainfield Absorption Surface to Wet Season Water Table</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Effective Soil Depth</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System to Surface Water</td>
<td>4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>System to Non-Potable Well</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Following:

- a) Maximum Setback (<75 feet and >50 feet)
- b) Original Setback (if >50 feet)
- c) 50 feet

24 inches Greatest of the Following:

- a) Maximum Separation (>126 inches)
- b) Original Separation (if >126 inches)
- c) 126 inches

42 inches Greatest of the Following:

- a) 24 inches
- b) Maximum Separation (>12 inches)
- c) 12 inches

50 feet Greatest of the Following:

- a) Maximum Setback (>25 feet and <50 feet)
- b) Original Setback (if >25 feet)
- c) 25 feet

50 feet Greatest of the Following:

- a) Maximum Setback (>25 feet and <50 feet)
- b) Original Setback (if >25 feet)
- c) 25 feet
<table>
<thead>
<tr>
<th>Drainfield Sidewall</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>System to Property Line or Building Foundation</td>
<td>1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Prior to 1-1-1983</th>
<th>System to a Private Potable Well</th>
<th>6</th>
<th>75 feet</th>
<th>Greatest of the Following:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>a) Maximum Setback (&lt;75 feet and &gt;50 feet)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>b) Original Setback (if &gt;50 feet)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>c) 50 feet</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Bottom of Drainfield Absorption Surface to Wet Season Water Table</th>
<th>5</th>
<th>24 inches</th>
<th>Greatest of the Following:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>a) Maximum Separation (&lt;24 inches and &gt;12 inches)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) Original Separation (if &gt;12 inches)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>c) 12 inches</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Effective Soil Depth</th>
<th>5</th>
<th>42 inches</th>
<th>Greatest of the Following:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>a) 36 inches</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) Maximum Separation (&gt; 24 inches)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>c) 24 inches</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>System to Surface Water</th>
<th>4</th>
<th>75 feet</th>
<th>Greatest of the Following:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>a) Maximum Setback (&lt;75 feet and &gt;50 feet)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>b) Original Setback (if &gt;50 feet)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>c) 50 feet</td>
<td></td>
</tr>
<tr>
<td>Description</td>
<td>Number</td>
<td>Distance</td>
<td>Description</td>
</tr>
<tr>
<td>-------------------------------------------------</td>
<td>--------</td>
<td>----------</td>
<td>-----------------------------------------------------------------------------</td>
</tr>
<tr>
<td>System to Non-Potable Well</td>
<td>3</td>
<td>50 feet</td>
<td>Greatest of the Following: a) Maximum Setback (&lt;50 feet and &gt;25 feet) b) Original Setback (if &gt;25 feet) c) 25 feet</td>
</tr>
<tr>
<td>Drainfield Sidewall to Start of Slope</td>
<td>2</td>
<td>4 feet</td>
<td>Greatest of the Following: a) Maximum Separation (&gt;2 feet) b) 2 feet</td>
</tr>
<tr>
<td>System to Property Line or Building Foundation</td>
<td>1</td>
<td>5 feet</td>
<td>Greatest of the Following: a) Maximum Setback (&gt;2 feet) b) 2 feet</td>
</tr>
<tr>
<td>1-1-83 to Present</td>
<td>System to a Private Potable Well</td>
<td>6</td>
<td>75 feet 75 feet</td>
</tr>
<tr>
<td>Bottom of Drainfield Absorption Surface to Wet Season Water Table</td>
<td>5</td>
<td>24 inches</td>
<td>24 inches</td>
</tr>
<tr>
<td>Effective Soil Depth</td>
<td>5</td>
<td>42 inches</td>
<td>Greatest of the Following: a) Maximum Separation (&gt;36 inches) b) 36 inches</td>
</tr>
<tr>
<td>System to Surface Water</td>
<td>4</td>
<td>75 feet</td>
<td>Greatest of the Following: a) Maximum Setback (if &gt;50 feet) b) 50 feet</td>
</tr>
<tr>
<td>System to Non-Potable Well</td>
<td>3</td>
<td>50 feet</td>
<td>50 feet</td>
</tr>
<tr>
<td>Drainfield Sidewall To Start of Slope</td>
<td>2</td>
<td>4 feet</td>
<td>Greatest of the Following: a) Maximum setback (&gt;2 feet) b) 2 feet</td>
</tr>
</tbody>
</table>
If one Gün into the drainfield, the minimum setbacks in subsection (5).

Footnotes to Table V:

1. For sites which contain oolitic limestone, the minimum effective soil depth shall be 12 inches regardless of the date the original system was installed provided that the wet season water table is a minimum of 4 feet below the bottom surface of the drainfield.

2. Where severely limited soil underlies the drainfield, soil removal and replacement shall be performed as per Footnote 3. to Table III.

(b) Where the cause of system failure is determined to be from root clogging or physical damage of the distribution box or drainfield of a system, and where removal of the root mass and restoration of the damaged drainfield will restore the system to its original design function, upon permitting, inspection and verification of the repair work by the health unit, permit satisfaction will be considered to be achieved.

For systems permitted on or after January 1, 1983, if system failure is due to excessive hydraulic loading, the original permitted drainfield shall be allowed to remain in service but shall have additional drainfield added to it. The resulting system drainfield size shall be 50 percent larger than the drainfield originally permitted, or shall be in compliance with drainfield sizing criteria specified in Rules 64E-6.008 and 64E-6.009, F.A.C., whichever is larger.

(c) For systems receiving domestic wastewater and originally more than 10 years prior to the repair permit application date, Minimum sizing of drainfield repairs for residential systems installed prior to 1983 shall be based on the criteria specified below. Failed drainfields shall be replaced with drainfields of the same size as the existing drainfields or meeting the sizing criteria specified in Rules 64E-6.008 and 009, F.A.C., whichever is larger, at a minimum, the sizing criteria specified below.

2. Table VI and VII values are for subsurface and filled systems if the existing drainfield cannot be used as part of the repair. Mound trench systems shall be sized 10 percent larger than the values below and 20 percent larger if absorption beds are installed in the mound. The amount of drainfield installed during the repair shall not be less than the amount the system had prior to the repair.

(d) Repairs of systems receiving commercial wastewater shall be based on the following criteria:

1. Sewage flows shall be determined from values found in Table I of Rule 64E-6.008, F.A.C., or on the highest monthly flow for the previous 18 month period from documented water use records, whichever is higher.

2. Drainfield loading shall not exceed 0.0015 pounds combined CBOD5 and TSS per square feet per day based on measured concentrations of treatment receptacle effluent samples and estimated sewage flow.

3. Drainfield loading shall not exceed the maximum loading rates in Rules 64E-6.008 and 009, F.A.C.

4. Portions of the existing drainfield that meet the requirements for system repairs and remain fundamentally in satisfactory operating condition may remain in service and have additional drainfield added to it.

5. The resulting drainfield following the repair shall not be smaller than the existing drainfield prior to the repair.

(e) If the total drainfield area exceeds 1000 square feet, or if the tank is too low to permit gravity flow into the drainfield, the drainfield shall be dced. The requirements of subsections 64E-6.014(3) and (4), F.A.C., shall be used for dosing requirements.

(f) Setbacks from an existing system to a public well shall not be decreased from existing setbacks, but shall be increased where practical to achieve the required setbacks as per paragraphs 64E-6.005(1)(b) and (c), F.A.C.

(g) A tank need not be replaced as part of the repair if the health department determines the tank to be free of observable defects or leakage. Free of deformity, constructed of approved materials, and within two sizes of the capacities required by Table II. In addition, the tank shall be pumped and a solids deflection device shall be installed as a part of the outlet of the tank if one is not currently in place.

(h) If a repair cannot be made utilizing the standards in subsection (5) above, all available area for drainfield repair shall be assessed and the repair permit shall allow for the maximum size drainfield that can be accommodated in the available area while allowing for the system to be installed meeting the required separation from the wettest season water table. Obstructions placed in violation of original permit conditions shall be permanently removed to provide space for system repair. Total removal of the existing drainfield and replacement of the drainfield in its original location shall be authorized if there is no additional area to enlarge the system. Setbacks to potable wells and surface water bodies shall not be less than the absolute minimum setbacks in subsection (5). Engineer-designed retention walls may be used to enclose a mound to maximize the quantity of drainfield installed. If the resulting drainfield is less than 75 percent of the drainfield required in subsection (5), aerobic treatment units and drip-emitter drainfield systems shall be required in order to meet, as closely as possible, the elevation, setback and sizing requirements of this section. Should the resulting drainfield be less than 60 percent of the
drainfield required in subsection (6), a performance-based treatment system shall be required in order to meet, as closely as possible, the elevation, setback and sizing requirements of this section. The resulting drainfield following the repair shall not be smaller than the existing drainfield prior to the repair or smaller than 75% of the drainfield area required in sections 64E-6.008 and 009.

(7) If soil replacement is to be performed on any repair, the requirements of Footnote 3., Table III, shall be adhered to.

(8) For inspection purposes when a drainfield is repaired using a physical disruption method, such as air injection, the contractor shall mark the location of each injection site in an easily identifiable manner. The county health department shall inspect repairs to determine that the absorption surface of the repaired drainfield meets the separation requirements from the wettest season high water table, to determine the repair process was completed according to the information provided with the repair permit application and to determine the repair site is free of sanitary nuisance conditions.

(10) Except as provided for in subsection (7) above, the amount of drainfield installed during the repair shall not be less than the amount the system had prior to the repair.

(11) Subsection 64E-6.004(7), F.A.C., shall be used in conjunction with this section when permitting a repair in which the property has been divided after the original permit was issued.

(12) For inspection purposes when a drainfield is repaired using a physical disruption method, such as air injection, the contractor shall mark the location of each injection site in an easily identifiable manner. The county health department shall inspect repairs to determine that the absorption surface of the repaired drainfield meets the separation requirements from at least six inches above the wettest season high water table, to determine the repair process was completed according to the information provided with the repair permit application and to determine the repair site is free of sanitary nuisance conditions.

(9) Any single drainfield trench or bed must consist entirely of the same drainfield product.

(10) If a drainfield fails less than 5 years after system installation, the repair shall include exposure of the entire distribution box or header pipe to allow inspection and verification that they are installed level.

Rulemaking Authority 381.0065(3)(a) FS. Law Implemented 381.0065, 386.041 FS. History–New 3-17-92, Amended 1-3-95, 2-13-97. Formerly 10D-6.0571, Amended 2-3-98, 3-22-00, 5-24-04, 11-26-06, 6-25-09, 4-28-10.
Issue Number: 10-19

Subject: Repair Standards

Rule Sections: 64E-6.015

Issue: Repair standards are out of date, complicated

Purpose and Effect: simplify the repair standards to meet current system sizing and 12 or 24 inch water table separation requirements.

Summary: simplifies repair standards, eliminates outdated requirements, complies with statutory requirements.

Date New: 10/13/2010
Date Initially Heard by TRAP: 9/23/2010
Date Initially Approved by TRAP: 9/23/2010
Date Heard by Variance Committee: 10/7/2010
Date of TRAP Final Recommendation: 12/2/2010
TRAP Final Recommendation: approve

Ready for Inclusion in Rule: YES
64E-6.003 Permits.

(1) System Construction Permit – No portion of an onsite sewage treatment and disposal system shall be installed, repaired, altered, modified, abandoned or replaced until an “Onsite Sewage Treatment and Disposal System Construction Permit” has been issued on Form DH 4016. If building construction has commenced, the system construction permit shall be valid for an additional 90 days beyond the eighteen month expiration date. If a construction or repair permit for an onsite sewage treatment and disposal system is transferred to another person the date of the construction or repair permit shall not be amended, but shall run from the date of original issuance prior to the transfer. Servicing or replacing with like kind mechanical or electrical parts of an approved onsite sewage treatment and disposal system; pumping of septage from a system; or making minor structural corrections to a tank, or distribution box, does not constitute a repair.

(2) through(6) No change

Rulemaking Authority 381.0065(3)(a), 489.553(3), 489.557(1) FS. Law Implemented 381.0065, 381.0067, 386.041 FS.

History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.43, Amended 3-17-92, 1-3-95, 5-14-96, 2-13-97, Formerly 10D-6.043, Amended 3-22-00, 4-21-02, 5-24-04, 11-26-06, 6-25-09.
Issue Number: 10-18

Subject: Repair Permit Fees

Rule Sections: 64E-6.003

Issue: Current rule exempts repair permits from the permit fee if the system is less than one year old.

Purpose and Effect: eliminates the repair permit fee exemption for systems that fail within one year of initial installation.

Summary: The proposal will make the $55 fee apply equally to all repair permits.

Date New: 9/10/2010
Date Initially Heard by TRAP: 12/2/2010
Date Tabled by TRAP: 
Date Initially Approved by TRAP: 12/2/2010
Date Heard by Variance Committee: 7/7/2011
Date of TRAP Final Recommendation: 10/11/2011
TRAP Final Recommendation: approve

Ready for Inclusion in Rule: YES
64E-6.030 Fees.

(1) The following fees are required for services provided by the department.

(a) Application and plan review for construction permit. $100
(b) Application for existing system, initial review. $35
(c) Existing System Evaluation. $115
(d) Application for permitting of a performance-based treatment system. $125
(e) Site evaluations:
   1. Standard site evaluation, does not include mean annual floodline determination. $115
   2. Mean annual flood line determination during site evaluation. $50
   3. Mean annual flood line determination if not conducted during site evaluation. $115
   4. Additional soil profiles, per two profiles over standard two profiles. $50
   (f) Site re-evaluation or excavation inspection. $50
   (g) Permit or permit amendment for new system, modification or repair to system. $5
   (h) Research/Training surcharge, new and repair permits. $75
   (i) Initial system construction inspection. $75
   (j) System reinspection (stabilization, non-compliance or other inspection after the initial inspection). $50
   (k) Application for system abandonment permit, includes permit issuance and inspection. $50
   (l) Annual operating permit industrial/manufacturing zoning or commercial sewage waste. $150
   (m) Biennial operating permit for aerobic treatment unit or performance-based treatment system. $100
   (n) Amendment to operating permit. $50
   (o) Tank Manufacturer’s Inspection per annum. $100
   (p) Septage Disposal Service permit per annum. $75
   (q) Portable or Temporary Toilet Service permit per annum. $75
   (r) Additional charge per pumpout vehicle, septage disposal service or portable toilet service. $35
   (s) Septage stabilization facility inspection fee per annum per facility. $50
   (t) Septage disposal site evaluation fee per annum. $200
   (u) Aerobic treatment unit maintenance entity permit per annum. $25
   (v) Variance Application for a single family residence per each lot or building site. $200
   (w) Variance Application for a multi-family or commercial building per each building site. $300
   (x) Application for innovative product approval. $2500

(2) The following fees are required to accompany applications for registration of individuals for septic tank contractor or master septic tank contractor or for a certificate of authorization for partnerships and corporations.

(a) Application for registration including examination. $75
(b) Initial registration. $100
(c) Renewal of registration. $100
(d) Certificate of authorization each two-year period. $250
Issue Number: 10-17

Subject: Fees

Rule Sections: 64E-6.030

Issue: current fees do not address department-conducted mean annual flood line determination or five-year evaluation report. Also, some activities performed by CHD's were not addressed in the fee structure.

Purpose and Effect: provide a fee for mean annual flood line determination, five-year evaluation reporting, excavation inspections, additional soil profiles.

Summary: amends fee structure to reflect services provided by CHD's

Date New: 9/7/2010
Date Initially Heard by TRAP: 9/23/2010
Date Tabled by TRAP: 9/23/2010
Date Initially Approved by TRAP: 
Date Heard by Variance Committee: 10/7/2010
Date of TRAP Final Recommendation: 12/2/2010
TRAP Final Recommendation: approve

Ready for Inclusion in Rule: YES
64E-6.005 Location and Installation.

All systems shall be located and installed so that with proper maintenance the systems function in a sanitary manner, do not create sanitary nuisances or health hazards and do not endanger the safety of any domestic water supply, groundwater or surface water. Sewage waste and effluent from onsite sewage treatment and disposal systems shall not be discharged onto the ground surface or directly or indirectly discharged into ditches, drainage structures, groundwaters, surface waters, or aquifers. To prevent such discharge or health hazards:

1. (1) No change.

2. (2) Systems shall not be located under buildings or within 5 feet of building foundations, including pilings for elevated structures, or within 5 feet of mobile home walls, swimming pool walls, or within 5 feet of property lines except where property lines abut utility easements which do not contain underground utilities, or where recorded easements are specifically provided for the installation of systems for service to more than one lot or property owner.

   a. No change.

   b. Systems shall not be located within 10 feet of water storage tanks in contact with the ground or potable water lines unless such lines are sealed with a water proof sealant within a sleeve of similar material pipe to a distance of at least 10 feet from the nearest portion of the system or the water lines themselves consist of schedule 40 PCV or stronger. In no case shall the water line be located within 24 inches of the onsite sewage treatment and disposal system. Potable water lines within 5 feet of the drainfield shall not be located at an elevation lower than the drainfield absorption surface. Non-potable water lines shall not be located within 24 inches of the system without backflow devices per Sections 381.0065(2)(l)(1) and 2., F.S., being installed on the water line to preclude contamination of the water system. Systems shall not be constructed within 10 feet of DEP-regulated water mains as defined in rule 62-555.314, F.A.C.

   c. No change.

   (3) No change.

   (4) through (9) No change.

Rulemaking Authority 381.0065(3)(a), 489.553, 489.557(1) FS. Law Implemented 381.0065, 489.553 FS. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.46, Amended 3-17-92, 1-3-95, Formerly 10D-6.046, Amended 11-19-97, 2-3-98, 3-22-00, 5-24-04, 6-25-09, .

62-555.314 Location of Public Water System Mains.

For the purpose of this section, the phrase “water mains” shall mean mains, including treatment plant process piping, conveying either raw, partially treated, or finished drinking water; fire hydrant leads; and service lines that are under the control of a public water system and that have an inside diameter of three inches or greater.

1. Horizontal Separation Between Underground Water Mains and Sanitary or Storm Sewers, Wastewater or Stormwater Force Mains, Reclaimed Water Pipelines, and On-Site Sewage Treatment and Disposal Systems.

   a. New or relocated, underground water mains shall be laid to provide a horizontal distance of at least three feet between the outside of the water main and the outside of any existing or proposed storm sewer, stormwater force main, or pipeline conveying reclaimed water regulated under Part III of Chapter 62-610, F.A.C.

   b. New or relocated, underground water mains shall be laid to provide a horizontal distance of at least three feet, and preferably ten feet, between the outside of the water main and the outside of any existing or proposed vacuum-type sanitary sewer.

   c. New or relocated, underground water mains shall be laid to provide a horizontal distance of at least six feet, and preferably ten feet, between the outside of the water main and the outside of any existing or proposed gravity- or pressure-type sanitary sewer, wastewater force main, or pipeline conveying reclaimed water not regulated under Part III of Chapter 62-610, F.A.C. The minimum horizontal separation distance between water mains and gravity-type sanitary sewers shall be reduced to three feet where the bottom of the water main is laid at least six inches above the top of the sewer.

   d. New or relocated, underground water mains shall be laid to provide a horizontal distance of at least ten feet between the outside of the water main and all parts of any existing or proposed “on-site sewage treatment and disposal system” as defined in Section 381.0065(2), F.S., and Rule 64E-6.002, F.A.C.
Issue Number: 10-14

Subject: Setback from DEP water Main

Rule Sections: 64E-6.005

Issue: While the current rule 64E-6.005 provides numerous variations on setbacks to water lines, the DEP rules require a 10-foot setback between onsite systems and water mains defined in 62-555.314

Purpose and Effect: requires onsite sewage systems to meet a 10 ft. setback from water mains including "...fire hydrant leads; and service lines that are under the control of a public water system and that have an inside diameter of three inches or greater."

Summary: Requires OSTDS to be 10 feet from public-water-system-controlled water mains that are 3" diameter or larger.

Date New: 8/9/2010
Date Initially Heard by TRAP: 12/2/2010
Date Tabled by TRAP: 
Date Initially Approved by TRAP: 12/2/2010
Date Heard by Variance Committee: 7/7/2011
Date of TRAP Final Recommendation: 10/11/2011
TRAP Final Recommendation: approve

Ready for Inclusion in Rule: YES
64E-6.004 Application for System Construction Permit.

(1) through (2) No change
(3) through (3)(a)3. No change
4. If an individual lot is larger than one acre, the applicant may draw a one acre or larger detail parcel to scale showing all required features. If the required features are within 75 feet of the one acre or larger detail parcel, the distance to the feature must be shown but need not be drawn to scale. The location of any public drinking water well, as defined in paragraph 64E-6.002(4)(b), F.A.C., within 200 feet of the one acre or larger detail parcel shall also be shown, with the measured distance indicated from the system to the well. The one acre or larger detail parcel must be large enough to accommodate a daily sewage flow allowance equal to the cumulative capacity of all systems within the parcel. The applicant must also show the location of that one acre or larger detail parcel inside the total site ownership.
5. No change
(b) through (i) No change
(4) through (9) No change

Rulemaking Authority 381.0065(3)(a), 489.553(3) FS. Law Implemented 381.0065, 489.553 FS. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.44, Amended 3-17-92, 1-3-95, 5-14-96, 2-13-97, Formerly 10D-6.044, Amended 11-19-97, 3-22-00, 11-26-06, 6-25-09.

64E-6.005 Location and Installation.

All systems shall be located and installed so that with proper maintenance the systems function in a sanitary manner, do not create sanitary nuisances or health hazards and do not endanger the safety of any domestic water supply, groundwater or surface water. Sewage waste and effluent from onsite sewage treatment and disposal systems shall not be discharged onto the ground surface or directly or indirectly discharged into ditches, drainage structures, groundwaters, surface waters, or aquifers. To prevent such discharge or health hazards:

1. Systems and septage stabilization facilities established after the effective date of the rule shall be placed no closer than the minimum distances indicated for the following:
   (a) through (e) No change
   (f) Fifteen feet from the design high-water line of retention areas, detention areas, or swales designed to contain standing or flowing water for less than 72 hours after a rainfall or the design high-water level of normally dry drainage ditches or normally dry individual-lot stormwater retention areas. Excluded from this setback requirement are swales designed only to divert the runoff from drainfield mound or fill systems.

Rulemaking Authority 381.0065(3)(a), 489.553, 489.557(1) FS. Law Implemented 381.0065, 489.553 FS. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.46, Amended 3-17-92, 1-3-95, Formerly 10D-6.046, Amended 11-19-97, 2-3-98, 3-22-00, 5-24-04, 6-25-09.

64E-6.008 System Size Determinations.

(1) through (4) No change
(5) The minimum absorption area for standard subsurface drainfield systems, graywater drainfield systems, and filled systems shall be based on estimated sewage flows and Table III so long as estimated sewage flows are 200 gallons per day or higher. When estimated sewage flows are less than 200 gallons per day, system size shall be based on a minimum of 200 gallons per day.

Table III No change
Footnotes to Table III:
1. through 4. No change
5. Where more than one soil texture classification is encountered within a soil profile and it is not removed as part of a replacement, drainfield sizing for standard subsurface drainfield systems and fill drainfield systems shall be based on the most restrictive soil texture in contact with the sidewalls or bottom of the drainfield or within 24 inches of the bottom of the drainfield absorption surface.
6. No change

Rulemaking Authority 381.0065(3)(a) FS. Law Implemented 381.0065 FS. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.48, Amended 3-17-92, 1-3-95, Formerly 10D-6.048, Amended 11-19-97, 3-22-00, 9-5-00, 11-26-06, 6-25-09.

64E-6.009 Alternative Systems.

(1) through (2) No change
(3) Mound systems— are used to overcome certain limiting site conditions such as an elevated seasonal high water table, shallow permeable soil overlying slowly permeable soil and shallow permeable soil located over creviced or porous bedrock. Special installation instructions or design techniques to suit a particular site shall, using the criteria in subsection 64E-6.004(4),
F.A.C., be specified on the construction permit in addition to the following general requirements.

(a) through (c) No change

(d) Where the soil material underlying a mound system is of a similar textural material as that used in system construction, the mound drainfield size shall be based on estimated sewage flows as specified in Rule 64E-6.008, F.A.C., Table I and upon the quality of fill material utilized in the mound system. When estimated sewage flows are calculated to be less than 200 gallons per day, specifications for system design shall be based on a minimum flow of 200 gallons per day. Maximum sewage loading rates for soils used in mound construction shall be in compliance with the following:

<table>
<thead>
<tr>
<th>Fill Material</th>
<th>Maximum Sewage Loading Rate to Mound Drain Trench Bottom Surface in gallons per square foot per day</th>
<th>Maximum Sewage Loading Rate to Mound Absorption Bed Bottom Surface in gallons per square foot per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sand; Coarse Sand;</td>
<td>0.80</td>
<td>0.60</td>
</tr>
<tr>
<td>Loamy Coarse Sand; and Fine Sand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sandy Loam;</td>
<td>0.65</td>
<td>0.40</td>
</tr>
<tr>
<td>Coarse Sandy Loam; and Loamy Sand</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fine Sandy Loam; Very Fine Sand; and Loamy Very Fine Sand</td>
<td>0.35</td>
<td>0.25</td>
</tr>
</tbody>
</table>

(e) Drainfield sizing shall be based on the most restrictive soil texture existing in contact with the sidewalls or bottom of the drainfield or in the profile to a depth of 36 inches below the bottom of the drainfield. Drainfield sizing based on soils below natural grade shall be based on Table III. Drainfield sizing based on fill material above natural grade shall be based on the soil loading rates in subparagraph (d).

(f) through (i) No change

(4) through (10) No change

Rulemaking Authority 381.0065(3)(a) FS. Law Implemented 381.0065, 386.041 FS. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.49, Amended 3-17-92, 1-3-95, Formerly 10D-6.049, Amended 11-19-97, 2-3-98, 3-22-00, 4-21-02, 6-18-03, 11-26-06, 6-25-09.

64E-6.015 Permitting and Construction of Repairs.

All repairs made to a failing onsite sewage treatment and disposal system shall be made only with prior knowledge and written approval from the DOH county health department having jurisdiction over the system. Approval shall be granted only if all of the following conditions are met:

(1) Any property owner or lessee who has an onsite sewage treatment and disposal system which is improperly constructed or maintained, or which fails to function in a safe or sanitary manner shall request from the DOH county health department, either directly or through their agent, a permit to repair the system prior to initiating repair of the system. A permit shall be issued on Form DH 4016, 1096, hereby incorporated by reference, only after the submission of an application accompanied by the necessary exhibits and fees. Form DH 4015, 1096, hereby incorporated by reference, shall be used for this purpose, and can be obtained from the department. Applications shall contain the following information:

(a) A site plan showing property dimensions, the existing and proposed system configuration and location on the property, the building location, potable and non-potable water lines, within the existing and proposed system drainfield repair area, the general slope of the property, property lines and easements, any obstructed areas, any private or public wells, or any surface water bodies and stormwater systems in proximity to the onsite sewage system which restricts replacement or relocation of the drainfield system. For this paragraph, “in proximity” shall mean closer to the proposed or existing system than the distance of the current required setback in Table V plus 25 feet. The existing drainfield type shall be described. For example, mineral aggregate, non-mineral aggregate, chambers, or other.

(b) through (f) No change

(2) through (12) No change

Rulemaking Authority 381.0065(3)(a) FS. Law Implemented 381.0065, 386.041 FS. History—New 3-17-92, Amended 1-3-95, 2-13-97, Formerly 10D-6.0571, Amended 2-3-98, 3-22-00, 5-24-04, 11-26-06, 6-25-09.
Issue Number: 10-10
Subject: Site Plans, Mounds
Rule Sections: 64E-6.004, 005, 008, 009, 015

Issue: This incorporates interpretive memos and clean-up some existing language related to showing and determining MAFL and other setback features, Mound size determination, setback to shallow swales.

Purpose and Effect: clarify what setback features need to be shown on large parcels, when MAFL is not required to be determined, sizing systems based on most restrictive soil beside and beneath the drainfield, deleting the setback from swales that control mound runoff.

Summary: amends site plans in 004 and 015, amends setbacks in 005, amends system sizing in 008 and 009.

Date New: 1/28/2010
Date Initially Heard by TRAP: 7/15/2010
Date Tabled by TRAP:
Date Initially Approved by TRAP: 7/15/2010
Date Heard by Variance Committee: 9/2/2010
Date of TRAP Final Recommendation: 12/2/2010
TRAP Final Recommendation: approve

Ready for Inclusion in Rule: YES
64E-6.016 U.S. Department of Agriculture Soil Textural Classification System.

(1) Soil texture is a term commonly used to designate the proportionate distribution of different sized mineral particles in a soil material. The three basic sizes of soil mineral particles are the sand size, the silt size and the clay size. The sand size class is subdivided further into the subclasses of very coarse sand, coarse sand, medium sand, fine sand, and very fine sand. Individual particles, based on their size, are grouped into separates. These soil separates are classified by size into the groupings shown below:

<table>
<thead>
<tr>
<th>Separate</th>
<th>Diameter Limit In Millimeters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very coarse sand</td>
<td>2.00 - 1.00</td>
</tr>
<tr>
<td>Coarse sand</td>
<td>1.00 - .50</td>
</tr>
<tr>
<td>Medium sand</td>
<td>.50 - .25</td>
</tr>
<tr>
<td>Fine sand</td>
<td>.25 - .10</td>
</tr>
<tr>
<td>Very fine sand</td>
<td>.10 - .05</td>
</tr>
<tr>
<td>Silt</td>
<td>.05 - .002</td>
</tr>
<tr>
<td>Clay</td>
<td>less than .002</td>
</tr>
</tbody>
</table>

(2) Florida’s major soil texture classifications and some of the characteristics which can be utilized in the field for identification of these soil texture groups is accomplished primarily by rubbing moist samples of soil material between the fingers and observing how the material feels.

(a) Sand (S) – Sand feels extremely gritty and does not form a ribbon or ball when wet or moist. A sand is loose and single grained. The individual grains can readily be seen or felt.

(b) Loamy sand (LS) – Loamy sand feels extremely gritty and forms a weak ball that cannot be handled without breaking.

(c) Sandy loam (SLL) – A sandy loam feels extremely gritty and slightly sticky. When moist, it forms a cast that will bear careful handling without breaking.

(d) Loam (L) – A loam feels somewhat gritty, yet fairly smooth and slightly plastic. When moist, it forms a cast that may be handled quite freely without breaking. Loam forms only short ribbons about 0.25 inch to 0.50 inches in length. This soil texture is not common in Florida soils.

(e) Silt loam (SLL) – Silt loam lacks grittiness and feels extremely floury when moist or dry. When dry it may appear cloddy but the lumps can be readily broken. When moist it will form casts that can be freely handled without breaking. It will not form a ribbon but will give a broken appearance. This soil texture is not common in Florida soils.

(f) Silt (SI) – Silt lacks grittiness and feels extremely floury when moist or dry. It will not ribbon and forms a weak ball that will tolerate careful handling without breaking. This soil texture is extremely rare in Florida soils.

(g) Sandy clay loam (SCL) – Sandy clay loam feels very gritty and sticky. When moist it forms a firm ball and may form a ribbon of one to two inches before it breaks.

(h) Clay loam (CL) – A clay loam feels very sticky with little or no grittiness. When moist it will form a ribbon that is about one to two inches long. The moist soil is plastic and will form a cast or ball that will bear much handling. When kneaded in the hand it does not crumble readily but tends to work into a heavy compact mass.

(i) Sandy clay (SC) – Sandy clay feels extremely sticky and very gritty. When moist and forms a firm ball and produces a ribbon that is over two inches in length before breaking.

(j) Silty clay (SIC) – Silty clay feels both plastic and extremely sticky when moist and lacks any gritty feeling. It forms a firm ball and readily ribbons to over two inches in length before it breaks. This soil texture is not common in Florida soils.

(k) Clay (C) – A clay feels extremely sticky and is neither gritty nor floury. When moist it forms a ribbon over two inches in length before breaking. It will form a hard ball or cast which will not break when handled.

(l) Organic soils – Muck, peat, and mucky peat are used in place of textural class names in organic soils. Muck is well decomposed organic soil material; peat consists of raw undecomposed organic soil material; and mucky peat designates materials intermediate in decomposition between muck and peat.

(3) Definitions of the soil texture classes according to distribution of size classes of mineral particles less than 2 millimeters in diameter are as follows:

(a) Sands – 85 percent or more sand and the percentage of silt plus 1 1/2 times the percentage of clay is 15 or less.

1. Coarse sand (COS) – 25 percent or more very coarse and coarse sand and less than 50 percent any other single grade of sand.

2. Sand (S) – 25 percent or more very coarse, coarse and medium sand, but less than 25 percent very coarse and coarse sand, and less than 50 percent either fine sand or very fine sand.

3. Fine sand (FS) – 50 percent or more fine sand; or less than 25 percent very coarse, coarse, and medium sand and less than 50 percent very fine sand.

4. Very fine sand (VFS) – 50 percent or more very fine sand.

(b) Loamy sands – At the upper limit 85 to 90 percent sand and the percentage of silt plus 1 1/2 times the percentage of clay is 15 or more; at the lower limit 70 to 85 percent sand and the percentage of silt plus twice the percentage of clay is 30 or less.
1. Loamy coarse sand (LCOS) – 25 percent or more very coarse and coarse sand and less than 50 percent any other single grade of sand.

2. Loamy sand (LS) – 25 percent or more very coarse, coarse, and medium sand and less than 50 percent either fine sand or very fine sand.

3. Loamy fine sand (LFS) – 50 percent or more fine sand; or less than 50 percent very fine sand and less than 25 percent very coarse, coarse, and medium sand.

4. Loamy very fine sand (LVFS) – 50 percent or more very fine sand.

(c) Sandy loams – 20 percent or less clay and 52 percent or more sand and the percentage of silt plus twice the percentage of clay exceeds 30; or less than 7 percent clay, less than 50 percent silt, and between 43 and 52 percent sand.

1. Coarse sandy loam (COSL) – 25 percent or more very coarse and coarse sand and less than 50 percent any other single grade of sand.

2. Sandy loam (SL) – 30 percent or more very coarse, coarse, and medium sand, but less than 25 percent very coarse and coarse sand, and less than 30 percent either fine sand or very fine sand.

3. Fine sandy loam (FSL) – 30 percent or more fine sand and less than 30 percent very fine sand; or between 15 and 30 percent very coarse, coarse, and medium sand; or more than 40 percent fine and very fine sand, at least half of which is fine sand, and less than 15 percent very coarse, coarse, and medium sand.

4. Very fine sandy loam (VFSL) – 30 percent or more very fine sand; or more than 40 percent fine and very fine sand, at least half of which is very fine sand, and less than 15 percent very coarse, coarse, and medium sand.

(e) Silt loam (SIL) – 50 percent or more silt and 12 to 27 percent clay; or 50 to 80 percent silt and less than 12 percent clay.

(f) Silt (SI) – 80 percent or more silt and less than 12 percent clay.

(g) Sandy clay loam (SCL) – 20 to 35 percent clay, less than 28 percent silt, and 45 percent or more sand.

(h) Clay loam (CL) – 27 to 40 percent clay and 20 to 45 percent sand.

(i) Silty clay loam (SICL) – 27 to 40 percent clay and less than 20 percent sand.

(j) Sandy clay (SC) – 35 percent or more clay and 45 percent or more sand.

(k) Silty clay (SIC) – 40 percent or more clay and 40 percent or more silt.

(l) Clay (C) – 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.

Rulemaking Authority 381.0011(4),(13), 381.0065(3)(a) FS. Law Implemented 381.0065, 381,00655 FS. History–New 12-22-82, Amended 3-17-92, 1-3-95, Formerly 10D-6.058, 10D-6.058.
Issue Number: 10-07

Subject: Soil abbreviations

Rule Sections: 64E-6.016

Issue: add abbreviations to list of soils

Purpose and Effect:

Summary: adds abbreviations to soils list.

Date New: 9/9/2009

Date Initially Heard by TRAP:

Date Tabled by TRAP:

Date Initially Approved by TRAP:

Date Heard by Variance Committee:

Date of TRAP Final Recommendation:

TRAP Final Recommendation: no action (technical)

Ready for Inclusion in Rule: YES
Yellow highlights are areas of change from last trap approval

64E-6.017 Definitions.
Definitions in Chapter 64E-6, Parts I and III, F.A.C., are also applicable to Chapter 64E-6, Part II, F.A.C.

1. Basic disinfection – treatment process designed to meet secondary treatment standards for fecal coliform providing an arithmetic annual mean not to exceed 200 fecal coliform colonies per 100 ml sample.

(1) through (3) renumber as (2) through (4) No change

(5) Minimum level of waste treatment – a treatment which will provide a recovered water product that contains not more, on a permitted annual average basis, than the following concentrations from a sampling point located following the final design treatment step of the onsite sewage treatment and disposal system:

- (a) Biochemical Oxygen Demand (CBOD₅) 10 mg/L
- (b) Suspended Solids 10 mg/L
- (c) Total Nitrogen, expressed as N 10 mg/L
- (d) Total Phosphorus, expressed as P 1 mg/L

(5) through (7) renumbered as (6) through (8) No change

Rulemaking Authority 381.0011(4), (13), 381.006, 381.0065(3)(a), (4)(l)(k) FS., Ch. 99-395, LOF. Law Implemented 154.01, 381.001(2), 381.0011(4), 381.006(7), 381.0061, 381.0065, 381.00655, 386.041 FS., Ch. 99-395, LOF. History–New 7-15-86, Amended 3-17-92, 1-3-95, Formerly 10D-6.062, Amended 3-3-98, 3-22-00.

64E-6.018 System Location, Design and Maintenance Criteria.

(1) Table III of Chapter 64E-6, Part I, F.A.C., and other subsections of Part I pertaining to soil texture, soil depth, and maximum sewage loading rates for specific soils shall not apply to areas subject to the provisions of this Part except for Table III, Footnote 2., as it relates to the falling head percolation test procedure. However, approved system design criteria, system location, operation, maintenance and monitoring requirements of this section subsections 64E-6.018(1), (2), (3), and (4), F.A.C., shall apply. A minimum of one soil profile and one percolation test per application shall be required for site evaluations performed in the Florida Keys. However, a soil profile and percolation test is not required when the system design engineer chooses the use of an injection well is used for effluent disposal. The following information shall be used to determine the wet season water table elevation:

(a) U.S. Department of Agriculture Natural Resources Conservation Service (USDA-NRCS) soils maps
and soil interpretation records.

(b) Mean high water elevation based on the Department of Environmental Protection, Bureau of Survey and Mapping, Land Boundary Information System (LABINS) mean high water data or determined by a surveyor in accordance with Chapter 177, FS.

(c) For the purposes of sections 64E-6.017 through 64E-6.0182, FAC, the wet season water table shall not be lower than the elevation of mean high water nor lower than the bottom of the range of the high water table depth in the USDA-NRCS soils maps and soil interpretation records.

(2) Effluent loading rates for various onsite sewage treatment and disposal system components installed under this part shall not exceed the following:

<table>
<thead>
<tr>
<th>Effluent Loading Rate</th>
<th>per Square Foot</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Nutrient-reducing material-lined drainfield receiving effluent from a performance-based treatment system</td>
<td>1.7 gallons per day</td>
</tr>
<tr>
<td>(b) Sand-lined drainfield receiving effluent from a performance-based treatment system</td>
<td>1.3 gallons per day</td>
</tr>
<tr>
<td>(c) Sand-lined drainfield receiving effluent from an aerobic treatment unit</td>
<td>1.1 gallons per day</td>
</tr>
<tr>
<td>(d) Sand-lined drainfield receiving effluent from a septic tank</td>
<td>0.9 gallons per day</td>
</tr>
<tr>
<td>(e) Mineral aggregate filter receiving effluent from an aerobic treatment unit</td>
<td>5.5 gallons per day</td>
</tr>
<tr>
<td>(f) Mineral aggregate filter receiving effluent from a performance-based treatment unit designed to meet a performance standard of 10 mg/L for CBOD5 and TSS before the effluent passes through the filter</td>
<td>8 gallons per day</td>
</tr>
</tbody>
</table>

(3) All new, modified and repaired onsite sewage treatment and disposal systems shall be performance-based treatment systems designed by an engineer licensed in the State of Florida, permitted in accordance with Part IV of this chapter and shall meet the minimum level of waste treatment as defined in section Rule 64E-6.017, F.A.C. All receptacles subject to a positive buoyancy exposure shall be anchored or otherwise weighted to prevent flotation during flooding periods. The engineer’s design shall evaluate the receptacles shall be evaluated for buoyancy while in their normal operating condition.
An onsite sewage treatment and disposal system which meets the location, construction, maintenance and operational requirements of this section paragraphs 64E-6.018(1)(a) or (b), F.A.C., shall be approved, provided that if an aerobic treatment unit is a component of the system design, the certification, construction, operational and maintenance requirements of Rule 64E-6.012, F.A.C., shall also be met. The design engineer may specify an aerobic treatment unit with a minimum treatment capacity equal to the estimated sewage flow in Table I in lieu of using the values in Table IV when the aerobic treatment unit is part of a performance-based treatment system.

(a) When final effluent disposal is into a nutrient reducing material-lined drainfield system, the following general requirements shall apply:

1. A minimum 12 inch thick layer of nutrient-reducing material shall be placed beneath the bottom of the drainfield adsorption surface and a minimum 12 inch wide layer of the nutrient-reducing material shall be placed contiguous to the drainfield sidewall adsorption surfaces and extend from the elevation of the top of the drainfield sidewall down to at least 12 inches below the bottom of the drainfield in order to ensure that all effluent leaving the drainfield through the bottom or sidewalls must pass through at least 12 inches of nutrient-reducing material.

2. If the nutrient-reducing material is more coarse than the quartz sand required in subparagraph 64E-6.018(4)(b)1., the nutrient reducing material shall overlie a 12 inch thick layer of quartz sand meeting the particle size requirements for sand liners in subparagraph 64E-6.018(4)(b)1.

3. No part of the system shall be within 25 feet of the mean high water line of tidally influenced surface water bodies or within 25 feet of the mean annual flood line of permanent nontidal surface water bodies or salt marsh and Buttonwood Association habitat areas where the dominant vegetation species are those typical of salt marsh communities.

1. The county health department shall require the installer of a nutrient reducing material lined drainfield system to provide certification from the installer’s nutrient reducing material supplier that the material supplied for such type of installations meets the requirements of this subsection.

2. No part of the system shall be within 25 feet of the boundaries of surface water bodies or salt marsh and Buttonwood Association habitat areas where the dominant vegetation species are those typical of salt marsh communities.

4. The bottom of the drainfield shall be at least 24 inches above the wet season water table. The bottom surface of the nutrient reducing material layer shall be at least 12 inches above the wet season water table. The
bottom surface of the sand layer, if required, shall be at or above the elevation of the wet season water table. mean high water.

4. Appropriate shallow root vegetative cover shall be established over drainfield systems to maximize the beneficial effects of evapotranspiration.

5. Nutrient reducing material has a finite life span. The nutrient reducing material shall be replaced as necessary to ensure that the system continues to meet the minimum level of waste treatment.

5. Even effluent distribution over the nutrient reducing material layer shall be assured by utilizing low-pressure dosing or drip irrigation.

6. If drip emitter lines are used, the nutrient-reducing material shall extend at least 12 inches horizontally from the drip emitter lines.

(b) When final disposal is into a sand-lined drainfield, the following general requirements apply:

1. For a sand-lined drainfield, a minimum 12 inch thick layer of quartz sand shall be placed beneath the bottom of the drainfield adsorption surface and a minimum 12 inch wide and minimum 24 inch thick layer of quartz sand shall be placed contiguous to the drainfield sidewall adsorption surfaces in order to provide an additional level of effluent treatment prior to effluent passing into the surrounding natural limestone rock. Sand material shall have either an effective grain size in the range of 0.25 millimeter to 1.00 millimeter and shall have a uniformity coefficient of less than 3.5, or the material shall be of such size whereby at least 90 percent of the sand particles pass a U.S. Standard Number 18 sieve and less than 10 percent pass a number 60 sieve. These materials are in the USDA soil texture classes known as medium sand and coarse sand. The installer of a sand-lined drainfield system shall provide to the department certification from the sand supplier that the sand meets the requirements of this subsection.

2. The system shall meet the setback requirements of 64E-6.018(4)(a)3.

3. The bottom of the drainfield shall be at least 24 inches above the wet season water table.

(c)(b) An injection well shall be approved for final effluent disposal provided setbacks from salt marsh/buttonwood habitats and other surface water bodies cannot be met by another approved effluent disposal system described in this section noted above, and provided the installation is in compliance with the following:

1. An injection well shall not be permitted or installed under the provisions of this part in any area designated by the United States Environmental Protection Agency or the Florida Department of Environmental Protection as
having a single or sole source aquifer. Single source aquifer is defined in subsection 62-520.200(14), F.A.C.

2. In areas where injection wells are approved for use, the DOH County Health Department shall be the permitting authority for the engineer designed onsite sewage treatment unit and the injection well, where the estimated daily domestic sewage flow will not exceed 2000 gallons per day. For establishments having a total daily domestic sewage flow greater than 2000 gallons per day but not greater than 10,000 gallons per day or establishments having a daily commercial sewage flow not greater than 5000 gallons per day, the Monroe County Health Department shall be the permitting authority for the engineer designed treatment unit and DEP shall be the permitting authority for the injection well and any additional associated effluent treatment device.

3. The ground surface within a distance of at least 10 feet in all directions around the injection well and any portion of the onsite sewage treatment and disposal system shall not be subject to frequent surface or ground water flooding. In addition, the invert of the effluent inlet pipe to the injection well shall be a minimum 18 inches above the estimated mean seasonal high water level.

4. If there is adequate vertical and horizontal clearance to allow for proper maintenance, repair or replacement of the treatment unit and injection well, such components of the onsite sewage treatment and disposal system shall be allowed to be placed beneath an elevated building.

5. Prior to discharge into an injection well, effluent shall pass through an unsaturated mineral aggregate filter unit as described in this paragraph or through a filter unit that has been determined by the State Health Office to allow the discharge of no more than 5 mg/L of CBOD$_5$ and TSS from the filter and at a minimum shall provide a 50% reduction in CBOD$_5$ and TSS. The unsaturated mineral aggregate filter shall be designed in accordance with the following:

   a. Effluent application to the unsaturated mineral aggregate filter unit shall be by gravity or pressure distribution to a perforated pipe distribution system as specified in Rule 64E-6.014, F.A.C. Such distribution system shall be placed within the walls of the mineral aggregate filter and shall be placed above a minimum 24-inch thick mineral aggregate filter layer. Mineral aggregate filter material shall have either an effective size in the range of 1.18 millimeters to 4.75 millimeters and a uniformity coefficient of less than 3.5 or the material shall meet aggregate size number eight or nine according to Florida Department of Transportation specifications under Section 901, “Standard Specifications for Road and Bridge Construction”, 1991. The system designer may specify additional layers of filter material above or below the required 24-inch layer of filter material. The installer of mineral aggregate filter systems
shall provide certification from the aggregate supplier that the aggregate meets requirements of this sub-paragraph.

If the filter is not sealed with a lid meeting the requirements for septic tank lids in 64E-6.013, F.A.C., the top of the filter shall be at least 18 inches above the elevation of the wet season water table and the filter shall be capped with a layer of slightly limited soil no less than 6 nor more than 12 inches thick. The design engineer may choose to use 24 inches of phosphorous adsorbing material in lieu of the 24-inch layer of filter material provided the effective size of the phosphorous adsorbing material meets the particle size specifications of this sub-paragraph.

b. The maximum sewage loading rate to an approved filter unit other than an unsaturated mineral aggregate filter as described in this section shall be evaluated by the State Health Office based on unit design, size, filter media characteristics and expected functional life of the unit.

c. Effluent having passed through an unsaturated mineral aggregate filter shall collect in an underdrain for discharge into an injection well. The underdrain shall consist of minimum 4 inch diameter perforated drainpipe which is encased within a minimum 8 inch depth of 1/2 to 2 inch diameter washed and durable mineral aggregate. The walls and bottom of the filter unit shall be reinforced concrete or other material of adequate strength and durability to withstand hydrostatic and earth stresses to which the unit will be subjected. The walls and bottom of the unit shall be made watertight so that the total volume of effluent passed through the mineral aggregate filter will be collected in the filter underdrain for discharge into the injection well.

6. Prior to discharge into an injection well, effluent from the filter unit shall be disinfected by chlorination or other disinfection method approved by the State Health Office to meet the basic disinfection requirements of this rule. Where chlorination is used, a free chlorine residual of 0.5 milligram per liter measured at the point of effluent discharge after a minimum chlorine contact time of 15 minutes prior to discharge into the injection well, shall be maintained in the effluent at all times. Disinfection shall occur in a treatment chamber dedicated to that purpose. Contact time shall be based on a peak hourly flow of no less than 20% of the estimated daily sewage flow.

5. Prior to discharge into an injection well, effluent shall be disinfected by chlorination or other disinfection method approved by the State Health Office. A minimum disinfection level equivalent to a free chlorine residual of 0.5 milligrams per liter measured at the point of effluent discharge after a minimum chlorine contact time of 15 minutes into the injection well, shall be maintained in the effluent at all times.

7. An injection well to receive an estimated daily domestic sewage flow not exceeding 2000 gallons per day shall meet minimum construction criteria a., b. and c. of this sub-paragraph. The Monroe County Health Department...
shall be notified by the well driller shall notify the county health department regarding the time when the well will be drilled so the county health department can schedule observation of well construction. The DOH County Health Department shall not approve an injection well shall not be approved for use until the well driller has certified, in writing to the department DOH County Health Department, that the well has been installed in compliance with the provisions of this sub-paragraph. The inspection fee for the construction of an injection well shall be $125.00.

a. An injection well as defined in subsection 64E-6.017(4) (2), F.A.C., shall be constructed, in part, utilizing a casing of polyvinyl chloride, commonly referred to as PVC. The minimum PVC casing weight and strength classification shall be schedule 40 and the minimum outside diameter of the casing shall be 4 inches. Other casing materials having strength and corrosion resistance properties equal to or greater than PVC schedule 40 pipe shall also be approved.

b. An open hole having a minimum diameter of 6 inches shall extend to a depth of not less than 30 feet below the bottom of the casing.

c. The annular space between the casing and the natural rock wall of the borehole shall be grouted the full length of the casing.

8. A minimum of one maintenance visit every six four months shall be made to those systems using injection wells for effluent disposal. The visit shall include an inspection of any filter units and the chlorination unit and include information on chlorine residuals to assess compliance with the disinfection requirements of this rule any filter units. When an aerobic treatment unit is a component of the onsite sewage treatment and disposal system, documents and reports required in Rule 64E-6.012, F.A.C., shall also include the results of aerobic treatment unit inspections and shall include information on chlorine residuals to assess compliance with the disinfection requirements of this rule.

9. Within 90 days following the discontinuation of the use of an injection well is discontinued for effluent disposal the, the well owner shall obtain an abandonment permit, Form DH 4016, from the department. The injection well shall be properly abandoned and plugged by filling the injection well from bottom to top with cement grout, or by filling the open hole from the bottom of the hole to one foot below the bottom of the casing with gravel that meets the size requirements for drainfield aggregate in paragraph 64E-6.014(5)(c), and filling the remainder of the injection well with cement grout. The Monroe County Health Department shall be notified by the well driller, septic tank contractor, or state-licensed plumber at least two work days prior to the time when the well will be
abandoned so the department can schedule observation of the entire well abandonment procedure. The department shall not approve an injection well abandonment until the well driller, septic tank contractor, or state-licensed plumber has certified in writing that the well has been abandoned in compliance with the provisions of this sub-paragraph. If the abandonment of the well is not ready to be inspected at the time of the inspection of the abandonment of the treatment receptacles, the inspection fee for the abandonment of an injection well shall be $75.00 and shall be paid to the department prior to the inspection.

(2) For an aerobic treatment unit treating domestic sewage flows in excess of 1500 gallons per day but not exceeding 10,000 gallons per day, where effluent from the treatment unit will be discharged to an engineer designed soil absorption drainfield system, the following requirements shall be met:

(a) The soil absorption drainfield system shall be set back from surface water bodies by the greatest distance attainable, but shall meet at least minimum setback and elevation requirements specified in subsection 64E-6.018(1), F.A.C.

(b) The owner or lessee of a system shall comply with the general maintenance and operational requirements of subsections 64E-6.012(2) and (3), F.A.C., and any additional operation and maintenance requirements specified by the system design engineer.

(d) Nutrient-reducing materials have a finite life-span. Nutrient-reducing material shall be used in accordance with the following requirements:

1. The installer shall provide documentation from the nutrient reducing material supplier or from an independent testing organization that the material supplied meets the requirements of this section. The documentation shall include the capacity of the material to adsorb nutrient stated in units of mass of nutrient adsorbed per mass of adsorbing material.

2. Where the nutrient-adsorbing material will be used to underlie a drainfield in accordance with paragraph 64E-6.018(4)(a), the documentation from the nutrient-adsorbing material supplier or independent testing organization shall include either the effective grain size in millimeters and the uniformity coefficient of the material or a sieve analysis of the material showing the percentage passing a U.S. Standard Number 18 sieve and the percentage passing a number 60 sieve.

3. Where the design engineer has chosen to use 24 inches of phosphorous adsorbing material in lieu of the 24-inch layer of filter material as allowed in 64E-6.018(4)(c)5.a., the documentation from the nutrient-adsorbing
material supplier or independent testing organization shall include either the effective size in millimeters and the
uniformity coefficient of the material or the Florida Department of Transportation aggregate classification number
for the material.

4. The nutrient reducing material shall be replaced as necessary to ensure that the system continues to meet the
minimum level of waste treatment. The design engineer shall specify the capacity of the nutrient reducing material
to adsorb nutrient stated in units of mass of nutrient adsorbed per mass of adsorbing material at the design effluent
nutrient concentration. The design engineer shall provide an estimate of the life span for the system using the
adsorption capacity and estimated sewage flow. The minimum calculated life span shall be two years.

(5) The owner or lessee of a performance-based treatment system shall obtain and maintain a maintenance
contract with an approved maintenance entity.

(a) All new onsite sewage treatment and disposal systems shall be inspected by an approved maintenance entity
at least two times each year.

(b) The maintenance entity shall furnish to the county health department a listing of all performance based
treatment systems inspected or serviced during the respective reporting period. As a minimum, reports shall indicate
the system owner or building lessee, the street address of the system, the date of system inspection or service and a
statement as to the maintenance or service performed. The maintenance entity shall also include a list of the owners
who have refused to renew their maintenance contract. A maintenance report shall be kept by the maintenance
entity. A copy of all maintenance reports shall be provided to the county health department. The report shall include
the following information:

1. The address of the system.
2. Date and time of inspection.
3. Sample collection time and date, and person who collected sample.
4. Results of all sampling.
5. Volume of effluent treated, to include total monthly and daily average.
6. Maintenance performed.
7. Problems noted with the treatment system and actions taken or proposed to overcome them.

(6) All systems shall be designed and constructed with sampling ports that permit access for collecting samples
to assess compliance with the minimum level of treatment specified in section 64E-6.017, FAC.
The maintenance entity of a performance-based treatment system shall cause the system to be tested for nitrogen and phosphorous at least once every year. If a screening test is used, the screening test shall be one of the tests approved by the Monroe County Health Department. If the county health department is requested to conduct the screening test, an inspection fee of $75 shall be paid to the department prior to requesting the test. Upon the results of a screening test that shows a violation for phosphorous or nitrogen, the owner shall have the system sampled and tested by a laboratory certified by the department.

(a) If any individual laboratory-certified test shows a total phosphorous concentration in excess of 4.0 mg/L, the system may be re-sampled at the owner’s discretion. If the system is not re-sampled within 30 days of the original sampling date or the resample shows a phosphorous concentration in excess of 4.0 or shows less than a 50% reduction of phosphorous between the influent and effluent samples, the phosphorous adsorbing material shall be replaced as a system repair or the system shall be re-engineered. The system shall be brought into compliance with treatment standards required at the time of system permitting.

(b) If any individual laboratory certified test shows a total nitrogen concentration in excess of 40.0 mg/L, the system may be re-sampled at the owner’s discretion. If the system is not re-sampled within 30 days of the original sampling date or the resample shows a nitrogen concentration in excess of 40.0 or shows less than a 50% reduction of nitrogen between the influent and effluent samples, the system shall be re-engineered. The system shall be brought into compliance with treatment standards required at the time of system permitting.

(8) (4) In conjunction with the systems specified in this section subsections 64E-6.018(1) and (2), F.A.C., an applicant may use the alternative systems described in subsection 64E-6.009(1), (3), (4), (5) or (6), or (7), F.A.C. An alternative system shall meet the general intent of Part I and Part II of this rule.
(2) In areas that are scheduled to be served by a central sewer by December 31, 2015, where there is documentation from the sewer utility that the property is scheduled to be served by December 31, 2015 and there is documentation from the sewer utility or from the county tax collector’s office that the property owner has paid or has signed an agreement to pay for connection to the central sewer system, an onsite sewage treatment and disposal system requiring repair shall be repaired to the standards in this section. Sewage facility before July 1, 2010, interim construction standards specified in subsection 64E-6.0181(3), F.A.C., for new, modified, expanded or existing onsite sewage treatment and disposal systems or to replace cesspits or undocumented systems shall be allowed.

(a) Interim system requirements shall be allowed through July 1, 2004, for onsite sewage treatment and disposal systems in areas that are scheduled to be served, according to an adopted local comprehensive plan determined to be in compliance by the Department of Community Affairs, by a central sewage facility before July 1, 2010.

(b) After July 1, 2004, interim system requirements shall be allowed in an area scheduled to be served by a central sewage facility only when all of the following conditions are met:

1. An enforceable contract to provide the central sewage and collection system has been signed;

2. The contract contains a binding schedule for connection of the onsite sewage treatment and disposal systems to the central sewage facility; and

3. There is an enforceable requirement for abandonment of the onsite sewage treatment and disposal systems.

(c) Onsite sewage treatment and disposal systems that are not scheduled to be served in accordance with this section shall provide the level of treatment required in Rule 64E-6.018, F.A.C.

(d) All onsite sewage treatment and disposal systems in operation on July 1, 2010, shall provide the level of treatment required in Rule 64E-6.018, F.A.C.

(3) Interim systems standards shall be:

(a) No system shall be repaired to meet a lower standard of treatment than the treatment standard permitted or required to be met prior to the repair.

(b) The following general requirements apply for the use of a septic tank and sand-lined drainfield system:

1. A tank need not be replaced as part of the repair if the department determines the tank to be free of observable defects, constructed of approved materials, and if such tank has an effective capacity within two tank sizes of the capacities required by Table II. In addition, the tank shall be pumped and a solids deflection device or outlet filter shall be installed as a part of the outlet of the tank if one is not currently in place. If the tank needs to be
replaced as part of the repair, it shall be replaced with a tank meeting the requirements of Table II and 64E-6.013.

2. Effluent from the septic tank shall discharge to a drainfield over a sand liner meeting the standards in subparagraph 64E-6.018(4)(b)1.

3. No part of a septic tank and sand-lined drainfield system shall be located within 50 feet of the mean high water line of tidally influenced surface water bodies or within 50 feet of the mean annual flood line of permanent non-tidal surface water bodies.

4. The drainfield component of the system must be located a minimum distance of 50 feet from salt marsh and Buttonwood Association habitat areas where the dominant vegetation species are those typical of salt marsh communities.

5. The bottom of the drainfield shall meet the repair standards in Table V for separation from the wet season water table.

(c) The following general requirements apply for the use of an aerobic treatment unit and a sand-lined drainfield system:

1. A Class I aerobic treatment unit shall meet the which meets the location, construction, maintenance and operational requirements of subparagraph 64E-6.0181(3)(a)1. or 2., F.A.C., and the certification, construction, operational and maintenance requirements of Rule 64E-6.012, F.A.C.

1. Where a Class I aerobic treatment unit is utilized, and where final effluent disposal is into a sand lined drainfield system, the following general requirements shall apply:

2. Effluent from the aerobic treatment unit shall discharge to a drainfield over a sand liner meeting the standards in subparagraphs 64E-6.018(4)(b)1. and 2, and 3.

a. For a sand-lined drainfield, a minimum 12 inch thick layer of quartz sand shall be placed beneath the bottom of the drainfield absorption surface and a minimum 12 inch wide and minimum 24 inch thick layer of quartz sand shall be placed contiguous to the drainfield sidewall absorption surfaces in order to provide an additional level of effluent treatment prior to effluent passing into the surrounding natural limestone rock. Sand material shall have either an effective grain size in the range of 0.25 millimeter to 1.00 millimeter and shall have a uniformity coefficient of less than 3.5, or the material shall be of such size whereby at least 90 percent of the sand particles pass a U.S. Standard Number 18 sieve and less than 10 percent pass a number 60 sieve. These materials are in the USDA
soil texture classes known as medium sand and coarse sand. The county health department shall require the installer
of a sand-lined drainfield system to provide certification from the installer’s sand supplier that the sand supplied for
such type of installation meets the requirements of this subsection.

b. No part of the system shall be within 25 feet of the mean high water line of tidal surface water bodies or
within 25 feet of the ordinary high water line of lakes, ponds or other non-tidal surface waters or salt marsh and
Buttonwood Association habitat areas where the dominant vegetation species are those typical of salt marsh
communities.

e. The bottom surface of the sand layer shall be at least 12 inches above mean high water.

d. The maximum sewage loading rate to an aerobic treatment unit absorption bed drainfield with underlying
sand liner shall be 1.1 gallons per square foot per day.

e. Appropriate shallow root vegetative cover shall be established over drainfield systems to maximize the
beneficial effects of evapotranspiration.

(d) The following general requirements apply for the use of an aerobic treatment unit and an injection well as
defined in 64E-6.017, F.A.C.

1. The Class I aerobic treatment unit shall meet the certification, construction, operational and maintenance
requirements of Rule 64E-6.012, F.A.C.

2. Effluent from the aerobic treatment unit shall discharge to a filter, disinfection chamber and injection well
located, designed, installed, operated and maintained in accordance with paragraph 64E-6.018(4)(c).

2. Provided a Class I aerobic treatment unit is utilized and provided effluent from the treatment unit, prior to
discharge into an injection well, is passed through a mineral aggregate filter unit as described in subparagraph 64E-
6.0181(3)(a)2., F.A.C., or where effluent is passed through a filter unit of another design which has been determined
by the State Health Office to be at least equal to the mineral aggregate filter unit with regard to sewage treatment
capability, an injection well shall be approved in compliance with the following:

a. An injection well shall not be permitted or installed under the provisions of this part in any area designated by
the United States Environmental Protection Agency or the Florida Department of Environmental Protection as
having a single or sole source aquifer. Single source aquifer is defined in subsection 62-520.200(14), F.A.C.

b. In areas where injection wells are approved for use, the DOH Monroe County Health Department shall be the
permitting agent for the aerobic treatment unit, the filter unit and the injection well, where the estimated daily
domestic sewage flow will not exceed 2000 gallons per day. For establishments having a total daily sewage flow
greater than 2000 gallons per day but not greater than 10,000 gallons per day, the Monroe County Health
Department shall be the permitting authority for the aerobic treatment unit and the filter unit and DEP is the
permitting agent for the injection well and any additional associated effluent treatment device. The effluent from the
treatment unit permitted by the DOH Monroe County Health Department shall not exceed 20 mg/l CBOD₅ or 20
mg/l suspended solids on a permitted annual average basis and shall have disinfection in accordance with sub-
paragraph 64E 6.0181(3)(a)2.h., F.A.C., prior to discharge into any injection well.

e. The interior of the aerobic treatment unit, the top surface of the mineral aggregate filter soil cover, and the
ground surface within a distance of at least 10 feet in all directions around the injection well, filter unit and aerobic
treatment unit shall not be subject to surface or ground water flooding. In addition, the invert of the effluent inlet
pipe to the injection well shall be a minimum 18 inches above the estimated seasonal high water level.

d. If there is adequate vertical and horizontal clearance to allow for proper maintenance, repair or replacement
of the aerobic treatment unit, filter unit and injection well, such components of the onsite sewage treatment and
disposal system shall be allowed to be placed beneath an elevated building.

e. If a mineral aggregate filter as referred to in subparagraph 64E 6.0181(3)(a)2., F.A.C., is utilized, effluent
discharge from the aerobic unit shall be by gravity or pressure distribution to a perforated pipe distribution system as
specified in Part I, Rule 64E 6.014, F.A.C. Such distribution system shall be placed within the walls of the mineral
aggregate filter and shall be placed above a mineral aggregate filter layer which shall be at least 24 inches thick.
Mineral aggregate filter material shall have either an effective size in the range of 2.36 millimeters to 4.75
millimeters and shall have a uniformity coefficient of less than 3.5 or the material shall be equivalent in size to
Florida Department of Transportation aggregate classification number eight or nine. The system designer may
specify additional layers of filter material above or below the required 24-inch layer of filter material. The DOH
Monroe County Health Department shall require the installer of mineral aggregate filter systems to provide
certification from the installer’s mineral aggregate supplier that the aggregate supplied meets requirements of this
sub-paragraph. If the filter is not sealed with a lid meeting the requirements of paragraph 64E 6.013(1)(e), F.A.C.,
the filter shall be capped with a layer of slightly limited soil no less than 6 nor more than 12 inches thick.

f. The maximum sewage loading rate to the mineral aggregate filter shall be 5.5 gallons per square foot per day
based upon the top surface area of the filter layer. The maximum sewage loading rate to an approved filter unit other
than a mineral aggregate filter as described in this section shall be evaluated by the State Health Office based on unit
design, size, filter media characteristics and expected functional life of the unit.

g. Effluent having passed through a mineral aggregate filter shall collect in an underdrain for gravity or
mechanical discharge into an injection well. The underdrain shall consist of minimum 4 inch diameter perforated
drainpipe which is encased within a minimum 8 inch depth of 1/2 to 2 inch diameter washed and durable aggregate.
The walls and bottom of the filter unit shall be reinforced concrete or other material of adequate strength and
durability to withstand hydrostatic and earth stresses to which the unit will be subjected. The walls and bottom of the
unit shall be made waterproof so that the total volume of effluent passed through the mineral aggregate filter will be
collected in the filter underdrain for discharge into the injection well.

h. Prior to discharge into an injection well, effluent from the filter unit shall be disinfected by chlorination or
other disinfection method approved by the State Health Office. A minimum disinfection level equivalent to a free
chlorine residual of 0.5 milligram per liter measured at the point of effluent discharge after a minimum chlorine
contact time of 15 minutes into the injection well, shall be maintained in the effluent at all times.

i. An injection well to receive an estimated daily domestic sewage flow not exceeding 2000 gallons per day
shall meet minimum construction criteria (I), (II) and (III) of this sub-paragraph. The DOH Monroe County Health
Department shall not approve an injection well for use until the well driller has certified, in writing to the DOH
Monroe County Health Department, that the well has been installed in compliance with the provisions of this sub-
paragraph. The inspection fee for the construction of an injection well shall be $125.00.

(I) An injection well as defined in subsection 64E-6.017(3), F.A.C., shall be constructed, in part, utilizing a
casing of polyvinyl chloride, commonly referred to as PVC. The minimum PVC casing weight and strength
classification shall be schedule 40 and the minimum outside diameter of the casing shall be 4 inches. Other casing
materials having strength and corrosion resistance properties equal to or greater than PVC schedule 40 pipe shall
also be approved.

(II) An open hole having a minimum diameter of 6 inches shall extend to a depth of not less than 30 feet below
the bottom of the casing.

(III) The annular space between the casing and the natural rock wall of the borehole shall be grouted the full
length of the casing.

j. A minimum of one maintenance visit every four months shall be made to those systems using injection wells.
for effluent disposal. In addition to the standard aerobic treatment unit maintenance visit, the visit shall include an inspection of the chlorination and filter units. Documents and reports required in Rule 64E-6.012, F.A.C., shall also include the results of these inspections and shall include information on chlorine residuals to assess compliance with the disinfection requirements of this rule.

k. If an injection well is discontinued for effluent disposal use such injection well shall be properly abandoned and plugged by filling the injection well from bottom to top with cement grout.

(b) A performance-based treatment system designed and certified by a professional engineer, licensed in the state, as producing an effluent meeting at a minimum the treatment standards for a system designed in accordance with paragraph 64E-6.0181(3)(a), F.A.C., and permitted, constructed and monitored in accordance with Part IV.
Issue Number: 10-05

Subject: Part II (Florida Keys) SB 550, Update standards

Rule Sections: 64E-6.017, 018, 0181, 0182

Issue: SB 550 (Ch. 2010-205, Laws of Florida) amended repair standards for the Florida Keys. Many provisions are being relocated within the rules to eliminate duplication. Additionally, several provisions of Part II need updating to address evolving technology.

Purpose and Effect: incorporate repair standards for systems in areas where sewer will be available by the end of 2015 and clarify options for onsite systems in the Florida Keys.

Summary: The changes clarify standards for performance-based systems in the Florida Keys and provide repair standards in areas to be served by sewer by 2015.

Date New: 6/22/2010
Date Initially Heard by TRAP: 7/15/2010
Date Tabled by TRAP: 12/2/2010
Date Initially Approved by TRAP: 7/15/2010
Date Heard by Variance Committee: 9/2/2010
Date of TRAP Final Recommendation: 10/11/2011
TRAP Final Recommendation: approve

Ready for Inclusion in Rule: YES
64E-6.009 Alternative Systems.

Un-numbered introductory paragraph – No change

(1) through (4) No change

(5) Drip irrigation systems – Drip irrigation systems may, at the option of the applicant, be used in lieu of a mineral aggregate drainfield. Drip irrigation systems shall meet all requirements of this chapter except as noted below.

(a) Drip irrigation systems shall receive effluent from an approved aerobic treatment unit or a performance based treatment system designed to meet at least secondary treatment standards for CBOD₅ and TSS, and shall meet the following requirements:

1. through 26. No change

27. The minimum effective soil depth below drip emitter lines shall be 42 inches; however, spodic layers greater than 24 inches below the drip emitter lines may remain in place at the discretion of the design engineer.

(b) Drip irrigation systems shall be monitored during required maintenance visits by visual inspection of the ground surface above the emitter lines for evidence of soil saturation at the ground surface.

(6) through (10) No change

Rulemaking Authority 381.0065(3)(a) FS. Law Implemented 381.0065 FS. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.49, Amended 3-17-92, 1-3-95, Formerly 10D-6.049, Amended 11-19-97, 2-3-98, 3-22-00, 4-21-02, 6-18-03, 11-26-06, 6-25-09.
Issue Number: 10-02

Subject: Soil Replacement for Drip Systems

Rule Sections: 64E-6.009

Issue: The rule requires 42 inches of suitable soil below the bottom of the drainfield. Drip irrigation systems do not require spodic horizons to be removed when they are more than 24 inches below the bottom of the drainfield.

Purpose and Effect: allow spodic horizons to remain in place provided they are more than 24 inches below the drip emitter drainfield.

Summary: Eliminates requirement for replacement of spodic horizons between 24 and 42 inches below a drip emitter drainfield.

Date New: 2/26/2010
Date Initially Heard by TRAP: 7/15/2010
Date Tabled by TRAP:
Date Initially Approved by TRAP: 7/15/2010
Date Heard by Variance Committee: 9/2/2010
Date of TRAP Final Recommendation: 12/2/2010
TRAP Final Recommendation: approved

Ready for Inclusion in Rule: YES
64E-6.003 Permits

(1) No change

(2) System Inspection - Before covering with earth and before placing a system into service, a person installing or constructing any portion of an onsite sewage treatment and disposal system shall notify the county health department of the completion of the construction activities and shall have the system inspected by the department for compliance with the requirements of this Chapter, except as noted in subsection 64E-6.003(3) for repair installations.

(a) through (b) No change

(c) Final installation approval shall not be granted until the DOH county health department has confirmed that all requirements of this Chapter, including building construction and lot grading are in compliance with plans and specifications submitted with the permit application.

1. In addition, if the system was designed by an engineer the engineer of record shall certify to the Department that the installed system complies with the approved design and installation requirements. All changes to the engineering specifications shall be approved by the engineer of record.

2. No change

(d) through (e) No change

(3) through (6) No change

Rulemaking Authority 381.0065(3)(a), 489.553(3), 489.557(1) FS. Law Implemented 381.0065, 381.0067, 386.041 FS.

History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.43, Amended 3-17-92, 1-3-95, 5-14-96, 2-13-97, Formerly 10D-6.043, Amended 3-22-00, 4-21-02, 05-24-04, 11-26-06, 06-25-09.

64E-6.004 Application for System Construction Permit.

(1) through (3) No change

(4) All plans and forms submitted by an engineer shall be dated, signed and sealed. The engineer of record shall certify that the installed system complies with the approved design and installation requirements. The submission of detailed system construction plans prepared by a licensed engineer is required under the following circumstances:

(a) through (j) No change

(5) through (9) No change

Rulemaking Authority 381.0065(3)(a), 489.553(3) FS. Law Implemented 381.0065, 489.553 FS. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.44, Amended 3-17-92, 1-3-95, 5-14-96, 2-13-97, Formerly 10D-6.044, Amended 11-19-97, 3-22-00, 11-26-06, 6-25-09, 4-28-10.

64E-6.027 Permits.

(1) through (4) No change

(5) System inspection—Before covering with earth and before placing the performance-based treatment system into service, a person installing or constructing any portion of the performance-based treatment system shall notify the county health department of the completion of the construction activities and shall have the system inspected by the department for compliance with the requirements of this chapter.

(a) Prior to a final installation inspection by the department, the engineer of record shall certify in writing that the installed system complies with the approved design and installation requirements. This certification shall read as follows: "I certify that the engineering features of this performance-based treatment system have been examined by me and found to substantially comply with all specifications contained in the engineering design that was the basis for issuance of the construction permit. I certify that the operation and maintenance manual for this performance-based treatment system has been prepared or examined by me or by an individual(s) under my direct supervision and that there is reasonable assurance, in my professional judgment, that the system, when properly operated and maintained in accordance with this manual, will achieve the established performance standard and comply with all applicable statutory requirements and rules of the department".

(b) through (d) No change

(6) through (7) No change

Rulemaking Authority 381.0065(3)(a) FS. Law Implemented 381.0065, Part I 386 FS. History—New 2-3-98, Amended 4-21-02, 6-18-03, 6-25-09, 4-28-10.
Issue Number: 09-21

Subject: Inspection by engineers

Rule Sections: 64E-6.003, .004, .027

Issue: current rule exempts engineer-designed residential systems from being inspected by an engineer.

Purpose and Effect: will require all systems that were designed by an engineer to be inspected by that engineer.

Summary: removes the residential exemption from engineer inspection

Date New: 8/12/2009
Date Initially Heard by TRAP: 1/28/2010
Date Tabled by TRAP: 
Date Initially Approved by TRAP: 1/28/2010
Date Heard by Variance Committee: 3/4/2010
Date of TRAP Final Recommendation: 7/15/2010
TRAP Final Recommendation: approve

Ready for Inclusion in Rule: YES
64E-6.009 Alternative Systems
When approved by the DOH county health department, alternative systems may, at the discretion of the applicant, be utilized in circumstances where standard subsurface systems are not suitable or where alternative systems are more feasible. Unless otherwise noted, all rules pertaining to siting, construction, and maintenance of standard subsurface systems shall apply to alternative systems. In addition, the DOH county health department may, using the criteria in subsection 64E-6.004(4), F.A.C., require the submission of plans prepared by an engineer licensed in the State of Florida, prior to considering the use of any alternative system.

(1) Waterless, incinerating or organic waste composting toilets - may be approved for use if found in compliance with standards for Wastewater Recycle/Reuse and Water Conservation Systems as defined by ANSI/NSF International Standard Number 41, revised March 28, 2005, or NSF protocol P157 Electrical Incinerating Toilets - Health and Sanitization, issued April 28, 2000, May 1983, hereby incorporated by reference, and provided that graywater and any other liquid and solid waste is properly collected and disposed of in accordance with standards established in this Chapter. For residences, the required drainfield absorption surface and unobstructed area of the system treating the remaining sewage flow shall be reduced by 25% when waterless, incinerating or organic waste composting toilets are used exclusively for all toilet wastes. Solids removed from waterless, incinerating or organic waste composting toilets shall be mixed with lime, containerized, and disposed of with the solid waste from the establishment. Liquids discharging from waterless, incinerating or organic waste composting toilets shall be plumbed into the onsite system serving the establishment.
Issue Number: 09-20

Subject: Incinerating Toilets

Rule Sections: 64E-6.009

Issue: The language addressing composting and incinerating toilets refers to an old version of the applicable standard, and does not include a current testing protocol for incinerating toilets. The proposed language makes the updates.

Purpose and Effect: update the references for incinerating toilet standards.

Summary: updates the rule to incorporate the current NSF and ANSI/NSF standards.

Date New: 8/12/2009
Date Initially Heard by TRAP: 8/27/2009
Date Tabled by TRAP: 1/28/2010
Date Initially Approved by TRAP: 1/28/2010
Date Heard by Variance Committee: 3/4/2010
Date of TRAP Final Recommendation: 7/15/2010
TRAP Final Recommendation: approve

Ready for Inclusion in Rule: YES
64E-6.002 Definitions

For the purposes of this Chapter, the following words and phrases shall have the meanings indicated:

(1) through (12) No change

(13) Commercial Sewage Waste - Non-toxic, non-hazardous wastewater from commercial facilities. Included in this definition are commercial wastewaters and mixtures of commercial and domestic wastewaters from commercial and institutional food operations, commercial laundry facilities with no more than four washing machines, animal holding facilities (such as commercial kennels, veterinary hospitals, and animal grooming facilities), and beauty salons, provided toxic, hazardous or industrial wastes are not introduced into the system.

(14) through (59) No change

Rulemaking Authority 381.0011(4),(13), 381.0065(3)(a), FS, Law Implemented 381.0065, 381.00655, FS, History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.42, Amended 3-17-92, 1-3-95, Formerly 10D-6.042, Amended 11-19-97, 3-22-00, 11-26-06.
Issue Number: 09-19

Subject: Commercial Sewage Waste Definition

Rule Sections: 64E-6.002

Issue: the definition in the rule differs from the definition in the interagency agreement.

Purpose and Effect: incorporates the interagency definition of commercial wastewater into the rule.

Summary: adds beauty salons to the list of examples of commercial wastewater generators.

Date New: 8/12/2009
Date Initially Heard by TRAP: 1/28/2010
Date Tabled by TRAP: 
Date Initially Approved by TRAP: 1/28/2010
Date Heard by Variance Committee: 3/4/2010
Date of TRAP Final Recommendation: 7/15/2010
TRAP Final Recommendation: approve

Ready for Inclusion in Rule: YES
64E-6.026 Applications for Innovative system permits and System Construction Permits

(2) Applications for system construction permits - All information required in Part I for an application for system construction permit shall be included as part of the application for a performance-based treatment system. All information shall be dated, signed and sealed by the registered engineer who designed the system, and provided to the department. Upon any change to the design, documentation of any revisions shall be provided to the department and shall be dated, signed and sealed by the registered engineer. Additional information shall include the following:
Issue Number: 09-18

Subject: PBTS plans

Rule Sections: 64E-6.026

Issue: current rule requires two copies of all docs. One copy would be enough in most cases.

Purpose and Effect: the proposed change requires all plans to be signed and sealed but does not specify the number of copies to submit.

Summary: requires all plans to be signed and sealed. It does not specify the number of copies to submit.

Date New: 8/10/2009
Date Initially Heard by TRAP: 1/28/2010
Date Tabled by TRAP:
Date Initially Approved by TRAP: 1/28/2010
Date Heard by Variance Committee: 3/4/2010
Date of TRAP Final Recommendation: 7/15/2010
TRAP Final Recommendation: approve

Ready for Inclusion in Rule: YES
64E-6.004(3)

(a) A plan or plat of the lot or total site ownership. The site plan shall be drawn to scale and shall be for the
property where the system is to be installed. All site plans shall use standard civil engineering, non-metric scales.
Site plans drawn with a scale of 10 – 30 feet to one inch shall have a margin of error of not more than one-half foot.
Smaller scale site plans shall have a margin of error of not more than two feet between the scaled distance and the
dimension shown or required. Site plans shall be drawn on Form DOH 4015 or submitted on 8.5x11 inch or up to
24x36 inch paper using the scale that maximizes the size of the plan.
1. The site plan shall show boundaries with dimensions and any of the following features that exist or that are
proposed:
   a. Structures;
   b. Swimming pools;
   c. Recorded easements;
   d. Onsite sewage treatment and disposal system components
   e. Slope of the property
   f. Wells;
   g. Potable and non-potable water lines and valves;
   h. Drainage features;
   i. Filled areas;
   j. Excavated areas for onsite sewage systems;
   k. Obstructed areas;
   l. Surface water bodies; and
   m. Location of the reference point for system elevation.
2. If the county health department is responsible for performing the site evaluation, the applicant or applicant's
authorized representative shall indicate the approximate location of wells, onsite sewage treatment and disposal
systems, surface water bodies and other pertinent facilities or features on contiguous or adjacent property. If the
features are within 75 feet of the applicant lot, the estimated distance to the feature must be shown but need not be
drawn to scale.
3. If the county health department will not be performing the site evaluation, the applicant or authorized agent
shall be responsible for the measurements to all features, including the pertinent features within 75 feet of the
applicant lot. The location of any public drinking water well, as defined in paragraph 64E-6.002(44)(b), within 200
feet of the applicant's lot shall also be shown, with the distance indicated from the system to the well.
4. If an individual lot is five acres or greater, the applicant may draw a minimum one acre parcel to scale
showing all required features, or the minimum size drawing necessary to properly exhibit all required features,
whichever is larger. The applicant must also show the location of that one acre or larger parcel inside the total site
ownership.
Issue Number: 09-17

Subject: Site Plans

Rule Sections: 64E-6.004

Issue: Current site plan language is not specific about what scales are appropriate and how much tolerance is allowed in that scale.

Purpose and Effect: clarify which scales are appropriate and how much error is allowed in the drawings.

Summary: allows .5 ft. error on 1"=10', 20' and 30' scales. Allows 2 ft. error on smaller scales

Date New: 8/10/2009
Date Initially Heard by TRAP: 1/28/2010
Date Tabled by TRAP:
Date Initially Approved by TRAP: 1/28/2010
Date Heard by Variance Committee: 3/4/2010
Date of TRAP Final Recommendation: 7/15/2010
TRAP Final Recommendation: approve

Ready for Inclusion in Rule: YES
**64E-6.008 System Size Determinations**

(1) Minimum design flows for systems serving any structure, building or group of buildings shall be based on the estimated daily sewage flow as determined from Table I or the following:

(a) through (b) No change

**TABLE I**
For System Design
**ESTIMATED SEWAGE FLOWS**

<table>
<thead>
<tr>
<th>TYPE OF ESTABLISHMENT</th>
<th>ESTIMATED SEWAGE FLOWS</th>
<th>GALLONS PER DAY</th>
</tr>
</thead>
</table>

Mobile Home Park

(a) per single-wide mobile home space, less than 4 single wide spaces connected to a shared or individual onsite system

(b) per single-wide mobile home space, 4 or more single wide spaces are connected to a shared or individual onsite system

(c) per mobile home space used for a mobile home wider than single-wide add per mobile home width increment

(2) through (6) No change

Rulemaking Authority 381.0065(3)(a), FS. Law Implemented 381.0065, FS. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.48, Amended 3-17-92, 1-3-95, Formerly 10D-6.048, Amended 11-19-97, Amended 3-22-00, 9-5-00, 11-26-06, 06-25-09.
Issue Number: 09-16
Subject: Triple-Wide mobile home spaces; cleanup MHP sizing
Rule Sections: 64E-6.008

Issue: The rule contains no sizing for triple-wide mobile home spaces. Also, the current language about multiple spaces per system versus one space per system needs some cleaning.

Purpose and Effect: Provide sizing criteria for triple-side mobile home spaces in Mobile Home Parks.

Summary: The proposal adds 50 gallons to the double wide space flow to create a triple wide space flow.

Date New: 8/12/2009
Date Initially Heard by TRAP: 1/28/2010
Date Tabled by TRAP: 
Date Initially Approved by TRAP: 1/28/2010
Date Heard by Variance Committee: 3/4/2010
Date of TRAP Final Recommendation: 7/15/2010
TRAP Final Recommendation: approve

Ready for Inclusion in Rule: YES
64E-6.004 Application for System Construction Permit

(1) through (6) No change

(7) Where a property owner proposes to build or has built multiple residences or multiple businesses on a single lot, and splitting the property to separate any of the business or residences will place the onsite sewage treatment and disposal system in violation of this chapter, the property owner must submit, prior to issuance of a construction permit, a written utility easement which has been executed and recorded in the public property records at the county courthouse. The utility easement must bind the property together so that the original lot size is retained for purposes of compliance with all the requirements of Rule 64E-6, and must include provisions for maintaining the onsite sewage treatment and disposal system. (a) Where a property owner proposes to build or has built a single residence or a single business or multiple residences or businesses on multiple lots, the property owner must submit, prior to issuance of a permit, a written utility easement executed and recorded in the public property records at the county courthouse. The utility easement must bind the required property together so that the original lots and their collective size, or part thereof, is retained for purposes of the onsite sewage treatment and disposal system, and must include provisions for maintaining the onsite sewage treatment and disposal system.

(b) Where a property owner, through inadvertent error or mistake, has built multiple residences or multiple businesses on a series of lots and each residence or business has its own onsite sewage treatment and disposal system or the sewage flow from the residence or business exceeds the allowable limits established for the area of land upon which the residence or business is located, the property owner must execute and record in the public property records, a written utility easement, for the remaining undeveloped lots in the subdivision, which informs the public of the amount of sewage flow which will be generated or the number of onsite sewage treatment and disposal systems which will be installed in that subdivision. It must also state that when the maximum amount of sewage flow or maximum number of onsite sewage treatment and disposal systems has been reached for the subdivision, no further development can occur until sewer is available.

(8) No change

Rulemaking Authority 381.0011(4),(13), 381.0065(3)(a), 489.553(3) FS. Law Implemented 381.0065, 489.553, FS.

History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.44, Amended 3-17-92, 1-3-95, 5-14-96, 2-13-97, Formerly 10D-6.044, Amended 11-19-97, 3-22-00, 11-26-06, .
Issue Number:        09-15
Subject:             Duplexes on one lot
Rule Sections:       64E-6.004

Issue:               The current language addressing this issue is cumbersome and confusing.

Purpose and Effect:  clarify when a deed restriction is required for duplexes on single lots or establishments on multiple lots.

Summary:             clarify when easement is required for duplexes on single lots or establishments on multiple lots.

Date New:                           8/12/2009
Date Initially Heard by TRAP:       1/28/2010
Date Tabled by TRAP:                
Date Initially Approved by TRAP:     1/28/2010
Date Heard by Variance Committee:   3/4/2010
Date of TRAP Final Recommendation:  7/15/2010
TRAP Final Recommendation:          approve

Ready for Inclusion in Rule:        YES
64E-6.010 Septage and Food Establishment Sludge

(1) through (6) No change

(7) The food establishment sludge and contents from onsite waste disposal systems shall be disposed of at a site approved by the DOH county health department and by an approved disposal method. Untreated domestic septage or food establishment sludges shall not be applied to the land. Criteria for approved stabilization methods and the subsequent land application of domestic septage or other domestic onsite wastewater sludges shall be in accordance with the following criteria for land application and disposal of domestic septage.

(a) through (d) No change

(e) All septage and food establishment sludge haulers regulated by Chapter 64E-6, F.A.C. are to maintain a collection and hauling log at the treatment site or at the main business location which provides the information listed below. A copy of the log shall be submitted to the DOH county health department quarterly. Records shall be retained for five (5) years.

1. date of septage or waste collection  
2. address of collection  
3. indicate whether the point of collection is a residence or business and if a business, the type of business  
4. estimated volume, in gallons, of septage or waste transported  
5. receipts for lime or other materials used for treatment  
6. location of the approved treatment facility  
7. date and time of discharge to the treatment facility  
8. Acknowledgement from treatment facility of receipt of septage or waste  

(f) through (v) No change

(8) through (10) No change

Rulemaking Authority: 381.0011(4), (13), 381.0065(3)(a), 489.553(3), FS. Law Implemented: 381.0012, 381.0061, 381.0065, 386.041, FS. History: New 12-22-82, Amended 2-5-85, Formerly 10D-6.52, Amended 3-17-92, 1-3-95, 5-14-96, Formerly 10D-6.052, Amended 3-22-00, 05-24-04, 11-26-06, .
Issue Number: 09-10

Subject: septage logs

Rule Sections: 64E-6.010

Issue: current rule requires a quarterly log submission for the land application of septage but does not require a similar log from the cleaning company or the septage treatment facility. Thus the cradle-to-grave tracking cannot be performed.

Purpose and Effect: the reporting requirements for septage handlers to require them to provide quarterly logs of the material they pump, treat and dispose of.

Summary: requires service providers to provide quarterly summaries of septage and holding tank waste pumped, treated, and land applied.

Date New: 3/26/2009
Date Initially Heard by TRAP: 1/28/2010
Date Tabled by TRAP:
Date Initially Approved by TRAP: 1/28/2010
Date Heard by Variance Committee: 3/4/2010
Date of TRAP Final Recommendation: 7/15/2010
TRAP Final Recommendation: approve

Ready for Inclusion in Rule: YES
64E-6.0101 Portable Restrooms and Portable or Stationary Holding Tanks.

(1) through (6) No change

(7) Portable Restrooms, Portable Holding Tanks, Stationary Holding Tanks, Mobile Restroom Trailers, Mobile Shower Trailers, and Portable Sinks

(a) through (g) No change

(h) Portable restrooms shall be serviced at least weekly and the inside of the structure housing the storage compartment shall be cleaned on each service visit. Each portable restroom service visit shall include the pumping and removal of the waste contents in the waste water tank and the replacement of a toilet deodorant or disinfectant to prohibit the growth of bacteria in the waste tank. The service visit shall include the use of an antiseptic cleaner on the interior compartment of the portable restroom including the interior walls, the toilet seat and surrounding seat top area, the urinal, and the floor. The service visit shall include the replacement of toilet tissue. The exterior of the portable restroom shall be cleaned periodically.

(i) through (x) No change

(8) No change

Rulemaking Specific Authority: 381.0011(4), (13), 381.0065(3)(a), 489.553(3), FS. Law Implemented: 381.0012, 381.0065, 386.041, FS. History: New 05-24-04, Amended 11-26-06.____.
Issue Number: 09-04

Subject: Portable restroom cleaning requirements

Rule Sections: 64E-6.0101

Issue: Some portable restroom companies do poor job of maintaining the interior of their portable restroom units. This presents a public health issue for the people using the restroom as well as impacting negatively on the industry.

Purpose and Effect: provide minimum standards for what should be included in a portable restroom service visit.

Summary: Requires portable restrooms to have the waste removed, disinfectant added, interior surfaces to be cleaned and toilet paper to be replaced on each service visit.

Date New: 3/11/2009
Date Initially Heard by TRAP: 8/27/2009
Date Initially Approved by TRAP: 8/27/2009
Date Tabled by TRAP:  
Date Heard by Variance Committee: 10/1/2009
Date of TRAP Final Recommendation: 1/28/2010
TRAP Final Recommendation: approve

Ready for Inclusion in Rule: YES
64E-6.008 System Size Determinations

(1) Minimum design flows for systems serving any structure, building or group of buildings shall be based on
the estimated daily sewage flow as determined from Table I or the following:

(a) through (b) No change

TABLE I
For System Design
ESTIMATED SEWAGE FLOWS

<table>
<thead>
<tr>
<th>TYPE OF ESTABLISHMENT</th>
<th>ESTIMATED SEWAGE FLOWS</th>
<th>GALLONS PER DAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMMERCIAL:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mobile Home Park or Recreational Vehicle Park</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) per single-wide mobile home space or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>non-transient recreational vehicle space or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>park model space, less than 4 single-wide</td>
<td></td>
<td></td>
</tr>
<tr>
<td>spaces connected to a shared onsite system</td>
<td></td>
<td>250</td>
</tr>
<tr>
<td>(b) per single-wide mobile home space or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>non-transient recreational vehicle space or</td>
<td></td>
<td></td>
</tr>
<tr>
<td>park model space, 4 or more single-wide</td>
<td></td>
<td></td>
</tr>
<tr>
<td>spaces connected to a shared onsite system</td>
<td></td>
<td>225</td>
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<tr>
<td>(c) per double-wide mobile home space or,</td>
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<td></td>
</tr>
<tr>
<td>non-transient recreational vehicle space</td>
<td></td>
<td></td>
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<tr>
<td>less than 4 double-wide mobile home spaces</td>
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<td></td>
</tr>
<tr>
<td>connected to a shared onsite system</td>
<td></td>
<td>300</td>
</tr>
<tr>
<td>(d) per double-wide mobile home space or,</td>
<td></td>
<td></td>
</tr>
<tr>
<td>non-transient recreational vehicle space</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 or more double-wide mobile home spaces</td>
<td></td>
<td></td>
</tr>
<tr>
<td>connected to a shared onsite system</td>
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<td>275</td>
</tr>
<tr>
<td>(e) per transient recreational vehicle space for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>overnight stay, without water and sewer hookup per vehicle space</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>(f) per transient recreational vehicle space for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>overnight stay, with water and sewer hookup per vehicle space</td>
<td></td>
<td>75</td>
</tr>
<tr>
<td>Office building</td>
<td></td>
<td></td>
</tr>
<tr>
<td>per employee per 8 hour shift or</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>per 100 square feet of floor space, whichever is greater</td>
<td></td>
<td>15</td>
</tr>
<tr>
<td>Transient Recreational Vehicle Park</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(a) Recreational vehicle space for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>overnight stay, without water and sewer hookup per vehicle space</td>
<td></td>
<td>50</td>
</tr>
<tr>
<td>(b) Recreational vehicle space for</td>
<td></td>
<td></td>
</tr>
<tr>
<td>overnight stay, with water and sewer hookup per vehicle space</td>
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<td>75</td>
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<td>(2) through (6) No change</td>
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</tr>
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Specific Authority 381.0011(4)(13), 381.0065(3)(a), FS. Law Implemented 381.0065, FS. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.48, Amended 3-17-92, 1-3-95, Formerly 10D-6.048, Amended 11-19-97, Amended 3-22-00, 9-5-00, 11-26-06.
Issue Number: 09-01

Subject: Non-Transient Recreational Vehicle Space Flow

Rule Sections: 64E-6.008 Table I

Issue: The current rule makes no distinction between spaces used for transient recreational vehicles and non-transient recreational vehicles.

Purpose and Effect: provide an estimated daily sewage flow for non-transient recreational vehicle spaces that is the same as the flow for mobile home spaces.

Summary: Provides an estimated daily sewage flow for non-transient recreational vehicle spaces that is the same as the flow for mobile home spaces.

Date New: 1/16/2009
Date Initially Heard by TRAP: 8/27/2009
Date Tabled by TRAP: 8/27/2009
Date Initially Approved by TRAP: 1/28/2010
Date Heard by Variance Committee: 9/2/2010
Date of TRAP Final Recommendation: 12/2/2010
TRAP Final Recommendation: approve

Ready for Inclusion in Rule: YES
STATE OF FLORIDA
DEPARTMENT OF HEALTH
CHAPTER 64E-6, FLORIDA ADMINISTRATIVE CODE
STANDARDS FOR ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS

PART I

64E-6.001 General
(1) No change
(2) Structures used or intended for human occupancy, employment or service to the public and locations where people congregate, such as construction sites, fairs, housing for displaced persons, and field locations for agricultural workers shall provide approved wastewater treatment and disposal systems. Except for the provisions of Rule 64E-6.0101, permanent structures shall not rely upon the use of holding tanks and portable toilets for wastewater treatment and disposal.

64E-6.0101 Portable Restrooms and Portable or Stationary Holding Tanks.
(1) through (6) No change
(7) Portable Restrooms, Portable Holding Tanks, Stationary Holding Tanks, Mobile Restroom Trailers, Mobile Shower Trailers, and Portable Sinks
(a) through (x) No change
(y) Whenever temporary housing is provided to people who are homeless as a result of displacement from their homes either by immigration, natural disaster, or financial hardship, a minimum of one toilet, one hand washing sink, and one shower for each 20 people or fraction thereof shall be provided at the housing facility.

(8) No change
Specific Authority: 381.0011(4), (13), 381.0065(3)(a), 489.553(3), 489.557(1) FS. Law Implemented 381.0065, 381.0067, 386.041, 489.553, FS. History—New 12-22-82, Amended 2-5-85, Formerly 10-6.41, Amended 3-17-92, 1-3-95, 5-14-96, 2-13-97, Formerly 10D-6.041, Amended 11-19-97, 2-3-98, 3-22-00, 9-5-00, 05-24-04, 11-26-06. 

Specific Authority: 381.0011(4), (13), 381.0065(3)(a), 489.553(3), FS. Law Implemented: 381.0012, 381.0065, 386.041, FS. History: New 05-24-04, Amended 11-26-06. 

Issue Number: 08-18

Subject: Portable restrooms for temporarily displaced persons

Rule Sections: 64E-6.001, 0101

Issue: 64E-10 currently provides restroom ratios for displaced persons. It is being rewritten to seal with sanitation of facilities, not numbers of facilities.

Purpose and Effect: provide a fixture ratio for temporarily displaced persons. One toilet, hand wash sink and shower for each 20 people.

Summary: Provides a fixture ratio for temporarily displaced persons.

Date New: 7/25/2008
Date Initially Heard by TRAP: 8/27/2008
Date Tabled by TRAP:
Date Initially Approved by TRAP: 8/27/2008
Date Heard by Variance Committee: 10/2/2008
Date of TRAP Final Recommendation: 2/19/2009
TRAP Final Recommendation: approve

Ready for Inclusion in Rule: YES
64E-6.004 Application for System Construction Permit

   (1) through (2) No change
       WARNING...EDIT MANUALLY...DO NOT LOSE SOIL SCIENTISTS WHICH ARE NOT IN THIS VERSION

   (3) The suitability of a lot, property, subdivision or building for the use of an onsite sewage treatment and disposal system shall be determined from an evaluation of lot size, anticipated sewage flow into the proposed system, the anticipated sewage waste strength, soil and water table conditions, soil drainage and site topography and other related criteria. Necessary site investigations and tests shall be performed at the expense of the owner by either an engineer with soils training who is licensed in the State of Florida pursuant to Chapter 471, F.S.; by persons who have successfully completed a department-approved soils morphology course who are working under the direct responsible charge of an engineer licensed under Chapter 471, F.S.; by department personnel, registered septic tank contractors, master septic tank contractors, professional soil scientists certified and registered by the Florida Association of Environmental Soil Scientists; or by persons certified under s. 381.0101, F.S. Registered septic tank contractors shall perform site evaluations for system repairs only. When determining that the necessary site investigations and tests be performed by an engineer licensed in the State of Florida, the county health department must consider the criteria listed in subsection 64E-6.004(4). Results of site investigations shall be entered on, or attached to, the construction permit application form for consideration by the county health department. The application shall also include the following data:

   (a) through (f) No change

   (4) through (8) No change

   Specific Authority 381.0011(4),(13), 381.0065(3)(a), 489.553(3) FS. Law Implemented 381.0065, 489.553, FS. History—
   New 12-22-82, Amended 2-5-85, Formerly 10D-6.44, Amended 3-17-92, 1-3-95, 5-14-96, 2-13-97, Formerly 10D-6.044, Amended 11-19-97, 3-22-00, 11-26-06,
Issue Number: 08-16
Subject: Requirements for Engineer's Staff to do Site Evaluations
Rule Sections: 64E-6.004

Issue: LOF 08-215 Exempts engineers staff from certification under 381.0101 for doing site evaluations.

Purpose and Effect: add people who have passed a department-approved soils morphology course and who work under the direct supervision and control of an engineer to the list of people who can perform site evaluations.

Summary: Incorporates the 08-215 certification exemption into the rule.

Date New: 6/25/2008
Date Initially Heard by TRAP: 8/27/2008
Date Tabled by TRAP:
Date Initially Approved by TRAP: 8/27/2008
Date Heard by Variance Committee: 10/2/2008
Date of TRAP Final Recommendation: 2/19/2009
TRAP Final Recommendation: approve

Ready for Inclusion in Rule: YES
64E-6.013 Construction Materials and Standards for Treatment Receptacles

(1) Onsite wastewater treatment receptacle design - The following requirements shall apply to all onsite wastewater treatment receptacles manufactured for use in Florida unless specifically exempted by other provisions of these rules:

(a) through (b) No change

(c) Design and testing of fiberglass and polyethylene treatment receptacles:

1. Vacuum testing shall be conducted in accordance with the department’s policy for Test Requirements for Structural Proofing. The vacuum test shall be followed by a water-tightness test.

2. Vacuum testing shall demonstrate a distortion of volume of no more than 1% at a safety factor of 1.0 and 2% at a safety value of 1.4 followed by passing a water-tightness test to be considered satisfactory. To determine the vacuum at a 1.0 safety factor, divide the required total vacuum values by 1.4. There shall be no distortion of the access hatch perimeters at the full vacuum load and the access hatch must be able to be removed and reinstalled at the conclusion of the test.

3. Water-tightness testing shall be performed as follows: Fill the receptacle with water to the invert of the outlet. The receptacle is approved as water tight if the water level is held for one hour.

4. Each manufacturer of fiberglass or polyethylene receptacles approved prior to November 26, 2006, shall apply for re-approval of each receptacle not later than [INSERT SPECIFIC DATE] 120 days after the effective date of this rule. Re-approval requests shall be submitted to the department in accordance with the requirements for receptacle design approval in 64E-6.013(3). Receptacles shall be proof tested to show compliance with current standards. If the data from previous proof testing shows compliance with the current standards, those data may be used in lieu of additional proof testing. Receptacles not re-approved shall not be installed [INSERT SPECIFIC DATE] more than 6 months following the effective date of this rule.

(d) through (f) No change

(2) through (12) No change
Issue Number:        08-04
Subject:             Retesting Tanks to 2006 Standard
Rule Sections:       64E-6.013

Issue:               The strength standards for fiberglass and polyethylene tanks
changed in November, 2006. Some tanks tested to the prior lower standard may not
meet the 2006 standard.

Purpose and Effect:  require all tanks not already documented as meeting the 2006
standard to be re-tested and require tank manufacturers with designs for which
design review documentation is lacking to update their documentation.

Summary:             This change requires all tanks not already documented as
meeting the 2006 standard to be re-tested. Also requires tank manufacturers with
designs for which design review documentation is lacking to update their
documentation.

Date New:                           1/10/2008
Date Initially Heard by TRAP:       6/5/2008
Date Tabled by TRAP:                6/5/2008
Date Initially Approved by TRAP:    8/27/2008
Date Heard by Variance Committee:   10/2/2008
Date of TRAP Final Recommendation:  2/19/2009
TRAP Final Recommendation:          approve

Ready for Inclusion in Rule:        YES
Issue 19-12 formerly 07-23: Treatment Standard Definitions for Performance Based Treatment Systems.

- The proposal replaces treatment standards for 7-day and 30-day averages with a percent removal performance standard. 7-day and 30-day averages are not meaningful in current practice. Percent removal allows some consideration of variability in influent concentrations.
- The standards are reformatted in a table for ease of reading.
- Baseline standards are provided for all pollutants. Domestic sewage strength and septic tank effluent standards are now consistent with 64E-6.002(15)(c) (domestic sewage strength).
- Florida Keys standards are defined to clarify PBTS standards in locations where ATUs are required.
- Florida Keys standards are amended by grab sample and percent removal standards
- Advanced secondary treatment grab sample standards for nitrogen is loosened to make a distinction from Florida Keys standard.
- Effluent is defined and treatment standards are adjusted for soil-based treatment.
- Disposal and treatment component are defined

64E-6.025 Definitions
Due to extensive revision, strike entire section and add the following:

Definitions in Chapter 64E-6, Parts I and II, are also applicable to Chapter 64E-6, Part IV.

1. Bottom infiltrative surface - the vertical projection of the bottom surface of the drainfield that is no lower in elevation than 30 inches below grade.
2. Composite sample – a defined mixture of grab samples of wastewater or effluent taken in proportion to either time or flow, to minimize the effect of the variability of the individual sample.
3. Disposal component – arrangement of equipment and/or materials that distributes effluent within a drainfield.
4. Effluent – treated sewage at the point of discharge to the drainfield or disposal system. Where the site specific application proposes to use soil as component of the treatment system, effluent refers to the mixture of soil water, effluent and shallow groundwater recovered from the monitoring points and treatment concentration standards shall be decreased by 50% for cBOD5, TSS, TN, and TP, and by 90% for fecal coliform, and percent removal standards of table IX shall be correspondingly adjusted. For systems designed to meet the standards of 64E-6.017(4), effluent refers to the recovered water product from a sampling point following the final design treatment step.
5. Failure - in addition to 64E-6.002(23), exceedance by an individual sample of the applicable performance standards, unless the maintenance entity performs and documents maintenance, and a second individual sample is taken within 30 days of the first individual sample and meets the applicable individual performance standard.
6. Grab sample - a sample which is taken from wastewater or effluent over a period of time not to exceed fifteen minutes.
7. Effective drainfield depth - the vertical distance from the bottom of the drainfield to the invert of the
distribution pipe.
8. Innovative System – as defined by s. 381.0065(2)(g), F.S.
9. Performance-based treatment system - a specialized onsite sewage treatment and disposal system designed by a professional engineer with a background in wastewater engineering, licensed in the state of Florida, using appropriate application of sound engineering principles to achieve specified levels of CBOD5 (carbonaceous biochemical oxygen demand), TSS (total suspended solids), TN (total nitrogen), TP (total phosphorus), and fecal coliform found in domestic sewage waste, to a specific and measurable established performance standard. This term also includes innovative systems.
10. Performance-based treatment system maintenance entity - any person or business entity which has obtained an annual written permit issued on form DH4013 from the DOH county health department in the county where the maintenance entity is located and has been authorized to perform maintenance by the design engineer or manufacturer of all treatment components used in the performance-based treatment system and provides operation and maintenance services associated with that performance-based treatment system.
11. Sidewall infiltrative surfaces - the horizontal projection of the drainfield measured from the invert of the drainfield distribution pipe to the bottom infiltrative surface, or to 30 inches below finished grade, whichever is less.
12. Total drainfield depth - the vertical distance from the bottom of the drainfield to the top of the drainfield.
(13) Treatment component - any arrangement of equipment and/or material that treats sewage in preparation for further treatment and/or disposal. Treatment components may incorporate a disposal component.

(14) Treatment performance standards -
(a) Performance standards for effluent from performance-based treatment systems consist of three criteria:
1. Annual average concentration is the arithmetic mean of the results of all effluent samples taken within the previous 365 days, expressed as a concentration.
2. Individual sample - result of analysis of one effluent sample, whether grab sample or composite sample, expressed as a concentration.
3. Percent removal – annual average removal of a pollutant from the discharge of the treatment system, compared to the influent from the establishment. The influent stems from a septic tank or similar treatment compartment; percent removal= (1 - effluent concentration/influent concentration)*100

(b) Treatment performance standards are established for five pollutants.
1. Carbonaceous biochemical oxygen demand after five days (CBOD$_5$), measured in mg oxygen per liter
2. Total suspended solids (TSS), measured in mg per liter
3. Total nitrogen (TN), the sum of nitrite, nitrate and total Kjeldahl nitrogen, measured in mg nitrogen per liter
4. Total phosphorus (TP), measured in mg phosphorus per liter
5. Fecal coliform, measured in colony forming units (cfu) or most probable number (MPN) per 100 mL
(c) Numerical values for several levels of common treatment performance standards for the five pollutants are defined in Table IX. Compliance during monitoring shall consist of meeting at least one of the three criteria. To achieve compliance the values determined from samples of the system shall be equal to or better than the treatment standards listed. For concentrations, better means lower, for percent removal, better means higher.

(15) Wastewater strength - the sum of the CBOD$_5$ and TSS concentrations.

PUT TABLE IX HERE

Rulemaking Authority 381.0011(4), (13), 381.0065(3)(a), FS. Law Implemented 381.0065, 381.0067, 386.041, FS. History—New 2-3-98, Amended 3-22-00, 06-18-03, 11-26-06, .
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Footnote 1. Where chlorine is used for disinfection in a system designed to meet advanced wastewater treatment standard for fecal coliform, the design shall include provisions for rapid and uniform mixing; and the total chlorine residual of at least 1.0 mg/l shall be maintained at all times. The minimum acceptable contact time shall be 15 minutes at the peak hourly flow. No individual sample shall exceed 5 mg/L TSS after the last treatment step before application of the disinfectant.

Footnote 2. Where chlorine is used for disinfection in a system designed to meet either the secondary treatment standard or the advanced secondary treatment standard for fecal coliform, the design shall include provisions for rapid and uniform mixing and a total chlorine residual of at least 0.5 mg/l shall be maintained after at least 15 minutes contact time at the peak hourly flow.
(1) Advanced Secondary Treatment Standards: A wastewater system with the following operational
criteria:
(a) CBOD$\text{5}$ and TSS
1. The arithmetic mean of the CBOD$\text{5}$ or TSS values for the effluent samples collected (whether grab or
composite technique is used) during an annual period shall not exceed 10 mg/l.
2. The arithmetic mean of the CBOD$\text{5}$ or TSS values for a minimum of four effluent samples, each
collected (whether grab or composite technique is used) on a separate day during a period of 90 consecutive
days (quarterly) shall not exceed 12.5 mg/l.
3. The arithmetic mean of the CBOD$\text{5}$ or TSS values for a minimum of four effluent samples, each
collected (whether grab or composite technique is used) on a separate day of seven consecutive days shall
not exceed 15 mg/l.
4. Maximum permissible concentrations of CBOD$\text{5}$ or TSS values in any effluent grab sample at any time
shall not exceed 20 mg/l.
(b) TN
1. The arithmetic mean of the TN values for the effluent samples collected (whether grab or composite
technique is used) during an annual period shall not exceed 20 mg/l.
2. The arithmetic mean of the TN values for a minimum of four effluent samples, each collected (whether
grab or composite technique is used) on a separate day during a period of 90 consecutive days (quarterly)
shall not exceed 25 mg/l.
3. The arithmetic mean of the TN values for a minimum of four effluent samples, each collected (whether
grab or composite technique is used) on a separate day of seven consecutive days shall not exceed 30 mg/l.
4. Maximum permissible concentrations of TN values in any effluent grab sample at any time shall not
exceed 40 mg/l.
(c) TP
1. The arithmetic mean of the TP values for the effluent samples collected (whether grab or composite
technique is used) during an annual period shall not exceed 10 mg/l.
2. The arithmetic mean of the TP values for a minimum of four effluent samples, each collected (whether
grab or composite technique is used) on a separate day during a period of 90 consecutive days (quarterly)
shall not exceed 12.5 mg/l.
3. The arithmetic mean of the TP values for a minimum of four effluent samples, each collected (whether
grab or composite technique is used) on a separate day of seven consecutive days shall not exceed 15 mg/l.
4. Maximum permissible concentrations of TP values in any effluent grab sample at any time shall not
exceed 20 mg/l.
(d) Fecal coliform—system operation shall result in not more than 200 fecal coliform colonies per 100 ml
of effluent sample. Where chlorine is used for disinfection, the design shall include provisions for rapid and
uniform mixing and a total chlorine residual of at least 0.5 mg/l shall be maintained after at least 15
minutes contact time at the peak hourly flow. To determine compliance of a system, the following
operational criteria (using either MF or MPN methods) are applicable.
1. The arithmetic mean of the fecal coliform colonies collected during the annual period shall not exceed
200 per 100 ml of effluent.
2. The median value of the fecal coliform colonies for a minimum number of 10 samples of effluent, each
collected on a separate day during a period of 30 days (monthly) shall not exceed 200 per 100 ml of
d sample.
3. No more than 10% of the samples collected during the period of 30 consecutive days (monthly) shall exceed 400
 fecal coliform colonies per 100 ml of sample.
4. Any one sample shall not exceed 800 fecal coliform colonies per 100 ml of sample.
(2) Advanced Wastewater Treatment Standards: A wastewater system with the following operational
criteria:
(a) CBOD$\text{5}$ and TSS
1. The arithmetic mean of the CBOD$\text{5}$ or TSS values for the effluent samples collected (whether grab or
composite technique is used) during an annual period shall not exceed 5 mg/l.
2. The arithmetic mean of the CBOD$\text{5}$ or TSS values for a minimum of four effluent samples, each
collected (whether grab or composite technique is used) on a separate day during a period of 90 consecutive
days (quarterly) shall not exceed 6.25 mg/l.
3. The arithmetic mean of the CBOD$_5$ or TSS values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day of seven consecutive days shall not exceed 7.5 mg/l.

4. Maximum permissible concentrations of CBOD$_5$ or TSS values in any effluent grab sample at any time shall not exceed 10 mg/l.

(b) TN
1. The arithmetic mean of the TN values for the effluent samples collected (whether grab or composite technique is used) during an annual period shall not exceed 3 mg/l.

2. The arithmetic mean of the TN values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day during a period of 90 consecutive days (quarterly) shall not exceed 3.75 mg/l.

3. The arithmetic mean of the TN values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day of seven consecutive days shall not exceed 4.5 mg/l.

4. Maximum permissible concentrations of TN values in any effluent grab sample at any time shall not exceed 6 mg/l.

(c) TP
1. The arithmetic mean of the TP values for the effluent samples collected (whether grab or composite technique is used) during an annual period shall not exceed 1 mg/l.

2. The arithmetic mean of the TP values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day during a period of 90 consecutive days (quarterly) shall not exceed 1.25 mg/l.

3. The arithmetic mean of the TP values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day of seven consecutive days shall not exceed 1.5 mg/l.

4. Maximum permissible concentrations of TP values in any effluent grab sample at any time shall not exceed 2.0 mg/l.

(d) Fecal coliform—system operation shall result in an effluent in which fecal coliform colonies (per 100 ml of sample) are below detectable limits. Where chlorine is used for disinfection, the design shall include provisions for rapid and uniform mixing; and the total chlorine residual of at least 1.0 mg/l shall be maintained at all times. The minimum acceptable contact time shall be 15 minutes at the peak hourly flow. To determine compliance of a system, the following operational criteria (using either MF or equivalent MPN methods) shall be applicable.

1. Fecal coliform shall be below the detection limits for 75% of the samples collected over a 30 day period.

2. Any one sample shall not exceed 25 fecal coliform colonies per 100 ml of sample.

3. Any one sample shall not exceed 5.0 mg/l of TSS at a point before application of the disinfectant.

(3) Baseline system standards—A wastewater system with the following operational criteria:

(a) Effluent concentrations from the treatment tank:
1. CBOD$_5$ < 240 mg/l
2. TSS < 176 mg/l
3. TN < 145 mg/l
4. TP < 10 mg/l

(b) Percolate concentrations from the baseline system prior to discharge to groundwater:
1. CBOD$_5$ < 5 mg/l
2. TSS < 5 mg/l
3. TN < 25 mg/l
4. TP < 5 mg/l

(4) Bottom infiltrative surface—the vertical projection of the bottom surface of the drainfield that is no lower in elevation than 30 inches below grade.

(5) Composite sample—means a combination of individual samples of wastewater or effluent taken at selected intervals, generally hourly or less for some specified period, to minimize the effect of the variability of the individual sample.

(6) Grab sample—a sample which is taken from a wastestream without regard to the flow in the wastestream and over a period of time not to exceed fifteen minutes.

(7) Effective drainfield depth—the vertical distance from the bottom of the drainfield to the invert of the distribution pipe.

(8) Florida Keys nutrient reduction treatment—a treatment which will provide a recovered water product that contains not more, on a permitted annual average basis, than the following concentrations from a
sampling point located following the final design treatment step of the onsite sewage treatment and disposal system:

1. Biochemical Oxygen Demand (CBOD₅) — 10 mg/l
2. Suspended Solids — 10 mg/l
3. Total Nitrogen, expressed as N — 10 mg/l
4. Total Phosphorus, expressed as P — 1 mg/l

(9) Innovative System — as defined by s. 381.0065(2)(g), F.S.

(10) Performance-based treatment system — a specialized onsite sewage treatment and disposal system designed by a professional engineer with a background in wastewater engineering, licensed in the state of Florida, using appropriate application of sound engineering principles to achieve specified levels of CBOD₅ (carbonaceous biochemical oxygen demand), TSS (total suspended solids), TN (total nitrogen), TP (total phosphorus), and fecal coliform found in domestic sewage waste, to a specific and measurable established performance standard. This term also includes innovative systems.

(11) Performance System Maintenance Entity — any person or business entity which has been issued a written permit by the county health department and has been authorized by the design engineer or manufacturer of all treatment components used in the performance-based treatment system and provides operation and maintenance services associated with performance-based treatment system.

(12) Secondary Treatment Standards: A wastewater system with the following operational criteria:

(a) CBOD₅ and TSS

1. The arithmetic mean of the CBOD₅ or TSS values for the effluent samples collected (whether grab or composite technique is used) during an annual period shall not exceed 20 mg/l.
2. The arithmetic mean of the CBOD₅ or TSS values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day during a period of 30 consecutive days (monthly) shall not exceed 30 mg/l.
3. The arithmetic mean of the CBOD₅ or TSS values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day of seven consecutive days shall not exceed 45 mg/l.
4. Maximum permissible concentrations of CBOD₅ or TSS values in any effluent grab sample at any time shall not exceed 60 mg/l.

(b) Fecal coliform — system operation shall result in not more than 200 fecal coliform colonies per 100 ml of effluent sample. Where chlorine is used for disinfection, the design shall include provisions for rapid and uniform mixing and a total chlorine residual of at least 0.5 mg/l shall be maintained after at least 15 minutes contact time at the peak hourly flow. To determine compliance of a system, the following operational criteria (using either MF or equivalent MPN methods) are applicable.

1. The arithmetic mean of the fecal coliform colonies collected during the annual period shall not exceed 200 per 100 ml of effluent.
2. The geometric mean of the fecal coliform colonies for a minimum of 10 samples of effluent, each collected on a separate day, shall not exceed 200 per 100 ml of sample.
3. No more than 10% of the samples collected during a period of 30 consecutive days shall exceed 400 fecal coliform colonies per 100 ml of sample.
4. Any one sample shall not exceed 800 fecal coliform values per 100 ml of sample.

(13) Sidewall infiltrative surfaces — the horizontal projection of the drainfield measured from the invert of the drainfield distribution pipe to the bottom infiltrative surface, or to 30 inches below finished grade, whichever is less.

(14) Total drainfield depth — the vertical distance from the bottom of the drainfield to the top of the drainfield.

(15) Wastewater strength — the sum of the CBOD₅ and TSS concentrations in the effluent.
Issue Number: 07-23

Subject: Performance-Based Systems-Standards

Rule Sections: 64E-6.025

Issue: Replaces current 7-day and 30-day average discharge limits with a percent removal.

Purpose and Effect: replace current 7-day and 30-day average discharge limits with a percent removal., summarizes the performance requirements into a table format

Summary: Rewrites the definition and standards for Performance Based Treatment Systems

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TRAP Final Recommendation: approve

Ready for Inclusion in Rule: YES