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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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TRAP Issue 19-07

1 64E-6.030 Fees.

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

3 (a) through (r) No change

4 (s) Septage and food establishment storage tank inspection \$100150.00
5 for additional tanks not already permitted or being removed-per tank.

6 stabilization facility inspection fee per annum per facility.

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

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

9 (2) No change.

10

11 *Rulemaking Authority 154.06(1), 381.0066, 489.557(1) FS. Law Implemented 381.0065,*

12 *381.0066, 489.557 FS. History—New 2-3-98, Amended 3-22-00, 4-21-02, 5-24-04, 11-26-06, 9-*

13 *24-07, MM/DD/YY.*

14

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.

Date New:	2/1/2019
Date Initially Heard by TRAP:	2/28/2019
Date Tabled by TRAP:	
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

TRAP Issue 19-06

1 64E-6.0101 Portable Restrooms and Portable or Stationary Holding Tanks.

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

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

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

36 (b) and (c) No change.

37 (3) through (5) No change.

38 (6) All portable restroom and portable or stationary holding tank waste haulers regulated by
39 Chapter 64E-6, F.A.C., are to maintain a collection and hauling log at the main business
40 location which provides the information listed below. Records shall be retained for five (5) years.

41 (a) No change.

42 (b) Estimated volume, in gallons, of ~~septage or~~ waste transported;

43 (c) No change.

44 (d) No change.

45 (e) Acknowledgement from treatment facility of receipt of ~~septage or~~ waste; and

46 (f) No change.

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

49 (a) through (t) No Change.

50 (u) Portable or stationary holding tank, portable restroom, and portable hand sink wastes
51 shall be disposed of into a ~~septage treatment and disposal facility approved by the department~~
52 ~~or into a~~ treatment facility approved or permitted for such disposal by the Department of
53 Environmental Protection. These wastes shall be disposed of at land applied under provisions of
54 subsection 64E-6.010(7), F.A.C., provided a DEP-approved treatment facility or DEP regulated
55 land application site is not available. Companies which service portable or stationary holding
56 tanks or portable restrooms which use quaternary ammonium sanitizing and deodorizing
57 compounds are prohibited from having the wastes treated or disposed of at lime stabilization
58 facilities.

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

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

65 (8) No change.

66

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

69

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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Date of TRAP Final Recommendation: 4/23/2019
TRAP Final Recommendation: Pass

Ready for Inclusion in Rule: YES

TRAP 19-05

1 64E-6.010 Septage and Food Establishment Sludge.

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

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

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

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

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

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

34 (b) and (c) No change.

35 (3) through (5) No change.

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

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

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

49 ~~Prior to discharge of septage or food establishment sludge into a stabilization tank, the~~

50 septage or sludge shall be screened in a pretreatment tank or chamber which contains a final
51 screening method using bar screens having a maximum gap of 1/2 inch or rock screens or other
52 similar mesh material having a maximum 3/4 inch opening. Material retained in the screening
53 process shall be limed, containerized, and disposed of at an approved solid waste disposal
54 facility. Septage or sludge shall pass from the pretreatment tank or chamber to the stabilization
55 tank. Lime stabilization of septage shall be in accordance with processes and designs described
56 in Chapter 6, EPA 625/1-79-011, Process Design Manual for Sludge Treatment and Disposal,
57 hereby incorporated by reference. Facilities approved for septage treatment under this rule shall
58 not receive and treat more than 20,000 gallons of septage or combined septage, grease
59 interceptor, portable restroom or other receptacle waste associated with an onsite sewage
60 treatment and disposal system on any one day and shall not exceed a monthly average of
61 10,000 gallons of septage or septage and combined domestic waste per day. Stabilization by
62 lime shall raise the pH of the septage to a level of 12 for a minimum of two hours or to a level of
63 at least 12.5 for a minimum of 30 minutes to be deemed sufficient. The pH of the stabilized
64 septage shall be maintained at a level of at least 11 until actual land application, but shall not be
65 landspread until the pH of the stabilized septage has fallen below 12.5. To check the pH of the
66 stabilized septage, a sampling port having an internal diameter of no less than 1/2 inch and no
67 more than 3/4 inch and located no more than 60 inches above the ground surface shall be used
68 to allow sampling of waste tank contents. Lime purchase receipts shall be kept at the place of
69 business for a minimum of 6 months.

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

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

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

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

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

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

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

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

89 2. The site evaluation fee has been submitted.

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

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

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

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

100 5. The DOH county health department has granted approval to use the site.

101 ~~(c) No person shall dispose of domestic septage or sludge by land application unless they~~
102 ~~have complied with approved treatment and disposal methods described in Rule 64E-6.010,~~
103 ~~F.A.C. Lime stabilization in the tank of a septage hauling vehicle or in the tank of an onsite~~
104 ~~sewage treatment and disposal system is not an approved septage treatment method.~~

105 ~~(d) Land application of septage shall occur only in accordance with paragraph 64E-~~
106 ~~6.010(7)(a), F.A.C., unless prohibited by the DOH county health department due to a brief~~
107 ~~condition which creates a potential for a sanitary nuisance as exemplified in paragraph 64E-~~
108 ~~6.010(7)(l), F.A.C.~~

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

112 ~~1. Date of septage or waste collection;~~

113 ~~2. Address of collection;~~

114 ~~3. Indicate whether the point of collection is a residence or business and if a business, the~~
115 ~~type of business;~~

116 ~~4. Estimated volume, in gallons, of septage or waste transported;~~

117 ~~5. Receipts for lime or other materials used for treatment;~~

118 ~~56. Location of the approved treatment facility;~~

119 ~~67. Date and time of discharge to the treatment facility; and~~

120 ~~78. Acknowledgement from treatment facility of receipt of septage or waste.~~

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

124 ~~1. Date and time of each load of septage or waste is received;~~

125 ~~2. Name of company from which the septage or waste is received;~~

126 ~~3. Identification of the truck from which the septage or waste was received;~~

127 ~~4. Signature from the driver acknowledging delivery of the septage or waste;~~

128 ~~5. Quantity of septage or waste received;~~

129 ~~6. Date and time of discharge of each load of treated septage or waste;~~

130 ~~7. Name of the company which received the treated septage or waste from the treatment~~
131 ~~facility;~~

132 ~~8. Signature from the driver of the truck which received the treated septage or waste; and~~

133 ~~9. Quantity of treated septage or waste discharged to the truck.~~

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

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

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

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

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

152 Agricultural Use Plan, the water table encountered at the time of septage or sludge application
153 shall be determined by use of a monitoring well.

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

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

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

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

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

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

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

$$183 \text{AAR} = \text{N} \div 0.0026$$

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

188 2. Where the application rate is limited by phosphorous, the maximum annual surface
189 application rate of total phosphorous is 40 pounds per acre during any 12 month period.
190 Application of septage shall be applied as evenly as possible during the 12 month period to
191 ensure maximum uptake of phosphorous by the crops used. This equates to 2 dry tons or
192 12,000 gallons of typical septage per year. However, if the following formula, based on the
193 annual uptake of phosphorous for a given crop is used, the 12,000 gallons of septage applied
194 per acre per year shall be increased if the phosphorous content of the septage will not exceed
195 the phosphorous demand of the crop.

$$196 \text{AAR} = \text{P} \div 0.0076 \text{ if the crop demand is calculated for } \text{P}_2\text{O}_5.$$

$$197 \text{AAR} = \text{P} \div 0.0033 \text{ if the crop demand is calculated for P.}$$

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

202 (r) Permanent records of actual application areas and application rates shall be kept. These

203 records shall be maintained by the site owner, lessee, or the land applicator for a period of five
204 years, and shall be available for inspection upon request by the department or by DEP. An
205 annual summary of the total septage or sludge applied shall be provided with the annual update
206 to the Agricultural Use Plan. Records shall be kept and shall include:

- 207 1. ~~Location of the septage treatment facility from which each load of treated septage is~~
208 ~~obtained.~~
- 209 2. ~~Date and time the treated septage was obtained from the treatment facility.~~
- 210 3. ~~Dates of septage or sludge land application.~~
- 211 4. ~~Weather conditions when applied.~~
- 212 5. ~~Location of septage or sludge application site.~~
- 213 6. ~~Amounts of septage or sludge applied.~~
- 214 7. ~~Specific area of the site where septage or sludge was applied.~~
- 215 8. ~~pH of stabilized septage or sludge being applied.~~
- 216 9. ~~Soil groundwater table when septage was applied.~~
- 217 10. ~~Vegetational status of application area.~~

218 (s) Renumbered to (d) No change.

219 (t) ~~Application of food establishment sludge to the land shall be permitted if such food~~
220 ~~establishment sludge has been properly treated by lime stabilization, or by any other process~~
221 ~~which produces similar kills of microorganisms and has been approved by the State Health~~
222 ~~Office.~~

223 (u) ~~Mixing of unstabilized food establishment sludge with stabilized septage prior to land~~
224 ~~application is not permitted.~~

225 (v) ~~Food establishment sludge shall be blended with septage and treated prior to land~~
226 ~~application. The ratio of food establishment sludge to septage shall be no greater than 1:1.~~

227 (8) ~~Stabilization tanks and Septage and food establishment storage tanks may be located~~
228 ~~at regional stabilization facilities, at sites owned or leased by the disposal service. ~~or at sites~~~~
229 ~~owned by the owner or lessee of the septage land application site. Where leased, a copy of the~~
230 ~~complete lease agreement must be provided as part of the application. The lease must provide~~
231 ~~for the final disposition of all tanks and designate the party to be held responsible for final~~
232 ~~disposition of any tank on a leased facility. Whenever locations or tanks are modified, added or~~
233 ~~removed, the applicant must amend their current service permit application using form DH 4012~~
234 ~~and provide all current information to the department prior to any changes being made. All~~
235 ~~changes shall be noted on an amended permit, and shall not alter the issue date of the permit.~~
236 ~~All alterations must be inspected by the department at time of installation, as well as after~~
237 ~~removal of any tank.~~

238 (9) ~~Potable water supplies located at the stabilization tank and septage and food~~
239 ~~establishment sludge storage tank site shall be provided with back flow prevention devices to~~
240 ~~prevent potential contamination of water supplies.~~

241 (10) All materials incorporated herein may be obtained from the ~~Bureau of Onsite Sewage~~
242 ~~Programs at www.MyFloridaEH.com or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida~~
243 ~~32399-1713.~~

244
245 *Rulemaking Authority 381.0065(3)(a), 489.553(3) FS. Law Implemented 381.0065, 386.041,*
246 *373.4595 FS. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.52, Amended 3-17-92,*
247 *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,*
248 *MM-DD-YY.*

249

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

TRAP Issue 19-04

1 64E-6.001 General.

2 (1) No change

3 (2) No change.

4 (3) No change.

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

18 (a) Crystal River/Kings Bay Basin Management Action Plan, June 2018, Appendix D.
19 OSTDS Remediation Plan.

20 (b) DeLeon Spring Basin Management Action Plan, June 2018, Appendix D. OSTDS
21 Remediation Plan.

22 (c) Gemini Springs Basin Management Action Plan, June 2018, Appendix D. OSTDS
23 Remediation Plan.

24 (d) Homosassa and Chassahowitzka Springs Groups Basin Management Action Plan, June
25 2018, Appendix D. OSTDS Remediation Plan.

26 (e) Jackson Blue Spring and Merritts Mill Pond Basin Management Action Plan, June 2018,
27 Appendix D. OSTDS Remediation Plan.

28 (f) Upper Wakulla River and Wakulla Spring Basin Management Action Plan, June 2018,
29 Appendix D. OSTDS Remediation Plan.

30 (g) Wacissa River and Wacissa Spring Group Basin Management Action Plan, June 2018,
31 Appendix D. OSTDS Remediation Plan.

32 (h) Weeki Wachee Basin Management Action Plan, June 2018, Appendix D. OSTDS
33 Remediation Plan.

34 (4) renumbered to (5) No change.

35 (5) renumbered to (6) No change.

36 (6) renumbered to (7) No change.

37 (7) renumbered to (8) No change.

38 *Rulemaking Authority 381.0065(3)(a), 489.553(3), 489.557(1) FS. Law Implemented 381.0065,*
39 *381.0067, 373.811(2), 386.041, 489.553 FS. History—New 12-22-82, Amended 2-5-85, Formerly*
40 *10D-6.41, Amended 3-17-92, 1-3-95, 5-14-96, 2-13-97, Formerly 10D-6.041, Amended 11-19-*
41 *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.*
42

Issue Number: 19-04
Subject: Adoption of Basin Management Action Plans (BMAP) by rule reform
Rule Sections: 64E-6.001(4)

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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TRAP Final Recommendation: Pass

Ready for Inclusion in Rule: YES

TRAP Issue 19-02

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:

1. ASTM D-3034-~~1698~~, Standard Specification for Type PSM Poly-(Vinyl Chloride)_(PVC) Sewer Pipe and Fittings (~~1998~~), herein incorporated by reference.

2. ASTM D-2729-~~1796~~ Standard Specification for Poly-(Vinyl Chloride)_(PVC) Sewer Pipe and Fittings (~~1996~~), herein incorporated by reference.

3. AASHTO M252M-96 Standard Specification for Corrugated Polyethylene Drainage Pipe (1996), herein incorporated by reference. ~~Materials used to produce this pipe shall meet ASTM D 3350-98a, Standard Specification for Polyethylene Plastics Pipe and Fittings Materials (1998), Cell Classification 324420C, herein incorporated by reference.~~

4. ASTM ~~F667/F667M-16~~, Standard Specification for 3 through 24 in. Corrugated Polyethylene Pipe and Fittings ~~F 405-97~~ Standard Specification for Corrugated Polyethylene (PE) Pipe and Fittings (1997), herein incorporated by reference. ~~Materials used to produce this pipe shall meet ASTM D 3350-98a, Standard Specification for Polyethylene Plastics Pipe and Fittings Materials (1998), Cell Classification 324420C or E, herein incorporated by reference.~~

5. ASTM F 810-~~1299~~(2018), Standard Specification for Smoothwall Polyethylene (PE) Pipe for Use in Drainage and Waste Disposal Absorption Fields, herein incorporated by reference. ~~Materials used to produce this pipe shall meet ASTM D 3350-98a (1998), Standard Specification for Polyethylene Plastics Pipe and Fittings Materials, Cell Classification 32442C or E, herein incorporated by reference.~~

(3) and (4) No changes.

(5) Drain trenches and absorption beds – drain trenches and absorption beds are the standard subsurface drainfield systems used for disposing of effluent from septic tanks or other sewage waste receptacles. When used, these systems shall be constructed as specified below.

(a) 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~~ ~~C33-86~~ or lightweight aggregate conforming to ASTM ~~C330/C330M-17a~~ ~~C330-87~~ meeting State of Florida Department of Transportation (FDOT) specifications under Section 901, “Standard Specifications for Road and Bridge Construction, January 2019~~1991~~” and the following gradation requirements.

Sieve size	2 IN.	1 1/2 IN.	1 IN.	3/4 IN.	1/2 IN.	3/8 IN.	No. 4
Percent passing	90-100	35-100	15-100	0-70	0-50	0-30	0-5

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

1. and 2. No change.

(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 30° or more than 60° 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

46 distributed as equally as possible throughout the drainfield area. All plastic pipe shall conform to
47 the standards of ASTM D 3034-~~1698~~, Standard Specification for Type PSM Poly (Vinyl
48 Chloride) (PVC) Sewer Pipe and Fittings (~~2016~~~~1998~~), herein incorporated by reference, ASTM
49 F667/F667M-16, Standard Specification for 3 through 24 in. Corrugated Polyethylene Pipe and
50 Fittings (2016) ~~F 405-97~~~~Standard Specification for Corrugated Polyethylene (PE) Pipe and~~
51 ~~Fittings (1997)~~, herein incorporated by reference, or ASTM F 810-~~1299~~ (~~1999~~), herein
52 incorporated by reference.

53 (h) through (k) No changes.

54 (6) All materials incorporated herein may be obtained from the Bureau of Onsite Sewage
55 Programs at www.MyFloridaEH.com or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida
56 32399-1713.

57
58 *Rulemaking Authority 381.0065(3)(a) FS. Law Implemented 381.0065 FS. History--New 12-22-*
59 *82, Amended 2-5-85, Formerly 10D-6.56, Amended 3-17-92, 1-3-95, Formerly 10D-6.056,*
60 *Amended 2-3-98, 3-22-00, 5-24-04, 11-26-06, 6-25-09, 7-16-13, MM/DD/YY.*
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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.

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TRAP Final Recommendation: pass

Ready for Inclusion in Rule: YES

TRAP Issue 19-01

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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.

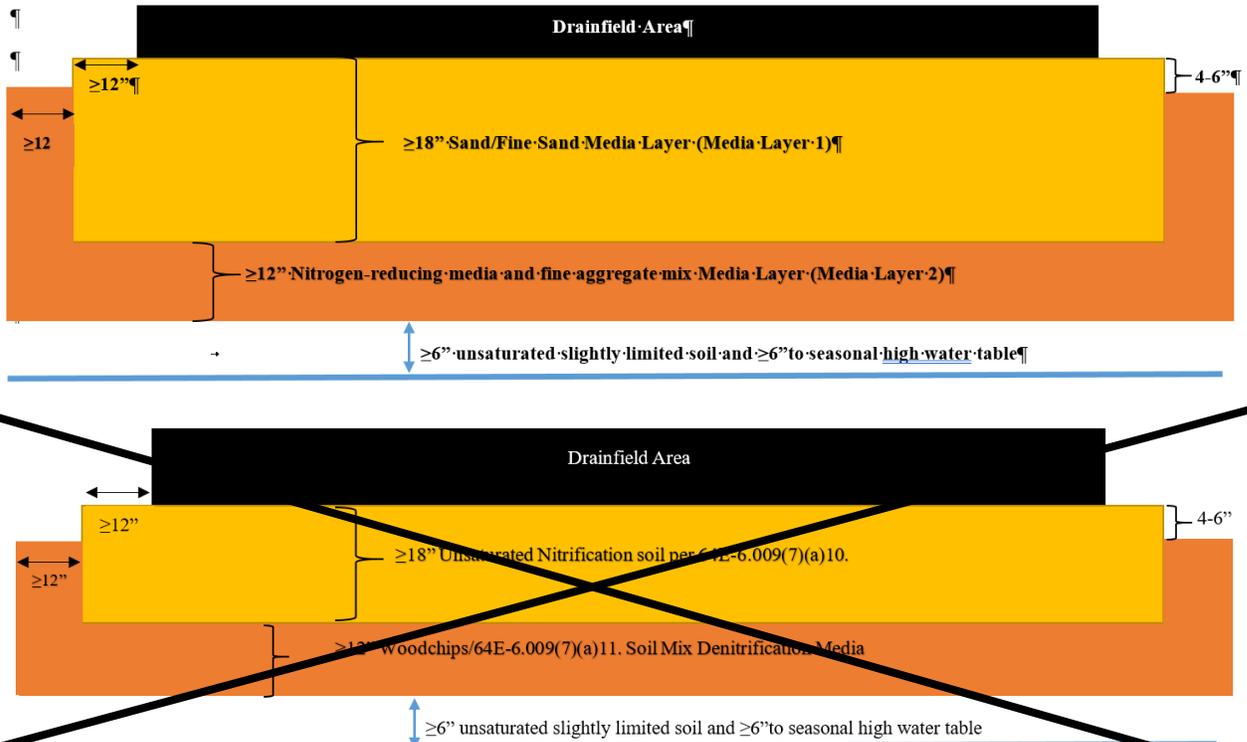
(7) In-ground Nitrogen-reducing Biofilters (INRB) – An arrangement of certain types of materials installed in layers underneath a drainfield for the purpose of reducing the mean total nitrogen by acting as a biological filter. INRB Nitrogen-reducing media layers, also referred to as media layers, may 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 sand fill area.~~

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 Mmedia 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 Mmedia 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.



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Figure 1. INRB media layer system

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4. While media longevity and nutrient reduction may be enhanced by the use of low-pressure distribution, any dDepartment-approved drainfield effluent distribution method may be used.

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5. The natural and existing soil profiles sthroughout the area of the drainfield and the area where the INRB will be placed must shall indicate slightly limited soils extending from the existing ground surface to at least 36-6 inches below existing ground surface the bottom of the nitrogen-reducing media layer.

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

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

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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.

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

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10. ~~The soil layer between the infiltrative surface of the drainfield and the Mmedia layer 1 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:~~

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a. those having color values less than or equal to 4 with chromas less than or equal to 3; or

81 b. those with colors on the gley charts.

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

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

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

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

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

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

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

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

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

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

130 3. No portion of the liner or media layer 2 shall be within 18 inches of the absorption surface
131 of the drainfield.

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

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

142 6. Media layer 1 shall comply with subparagraph (a)10. above.

143 7. Media layer 2 shall comply with subparagraph (a)11. above.

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

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

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

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

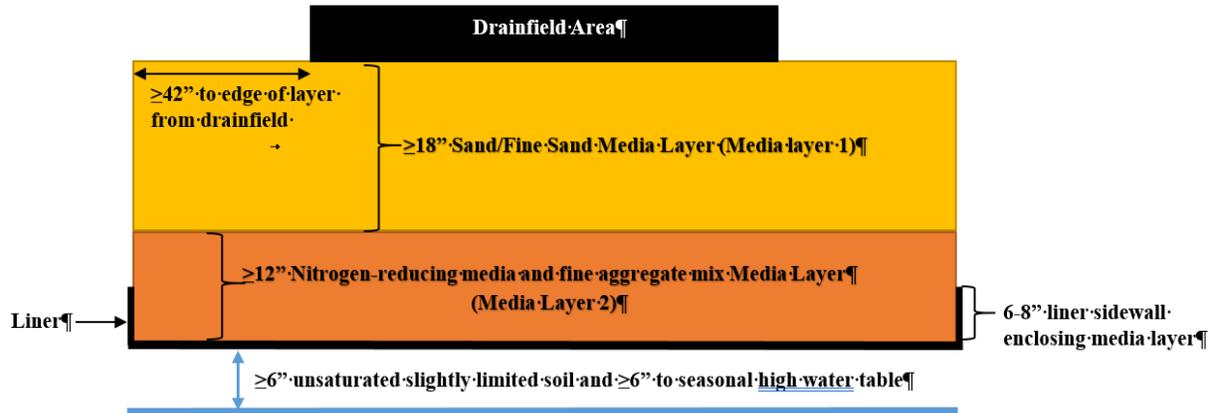
173 11. The professional engineer may specify methods to replenish media and remove spent
174 media if the continued presence of such spent media appreciably reduces the efficacy of the
175 process provided the methods do not compromise the efficacy of the system.

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

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

182 14. Setback distances to the liner, or media layers 1 and 2 extending to the absorption

183 surface of the drainfield shall be reduced by the following:
 184 a. Except for building foundations, vertical obstructions and pilings for elevated structures,
 185 where the required setback is ≤ 5 feet, the setback shall be reduced to one foot.
 186 b. Where the required setback is ≥ 10 feet, the setback shall be reduced by five feet.
 187 c. Setbacks to all other parts of the system shall be in compliance with the requirements in
 188 this Chapter and s. 381.0065, FS.



189
 190 Figure 2 INRB with Liner without underdrain

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

- 193 1. The system drainfield shall be low-pressure dosed unless the professional engineer
 194 chooses another method demonstrated to provide adequate nitrification. Lift-dosing may be
 195 used provided the design calculations to show that the entire distribution network will be
 196 charged with each dose.
- 197 2. The drainfield shall be installed and centered over media layer 1 which conforms to the
 198 textures and colors in subparagraph (a)10. Media layer 1 must extend at least 18 inches
 199 past the perimeter of the drainfield.
- 200 3. Below media layer 1, media layer 2 shall be installed and must extend at least 18 inches
 201 past the perimeter of the drainfield. Media layer 2 shall conform with subparagraphs (a)8. and
 202 (a)11., above.
- 203 4. An impermeable liner meeting the construction standards of subparagraphs (b)2. and
 204 (b)(13), above, shall be installed below media layer 2. The liner's interior surface must extend
 205 to a point at least 18 inches past the perimeter of the drainfield, at which point the liner shall be
 206 directed upwards toward the ground surface maintaining contact with media layers 1 and 2,
 207 stopping at a point four to six inches below the level of the bottom of the drainfield. No portion of
 208 media layer 2 shall be less than 18 inches below the absorption surface of the drainfield. Media
 209 layer 2 with liner shall extend beneath the entire drainfield absorption surface and extend at
 210 least 18 inches beyond the perimeter of any portion of the drainfield absorption surface and any
 211 other effluent release point. No part of the liner shall be placed within 12 inches of the pump or
 212 treatment tank.
- 213 5. An underdrain shall be installed on top of and in contact with the interior surface of the
 214 bottom of the liner within media layer 2, and shall disperse to a separately sized, located and
 215 installed drainfield. The underdrain shall be designed to maximize effluent movement through
 216 media layer 2 into the underdrain. The transmission line from the underdrain to the separate
 217 drainfield shall be set to maintain saturation to the top of media layer 2. In order to maintain
 218 distribution as high as possible above the seasonal high water table and to maintain the
 219 shallowest depth to finished grade the transmission line must not have a slope exceeding 1/8
 220 inch per foot when distributing the effluent to the separate drainfield.
- 221 6. Provided the effluent has passed vertically without pressure through media layer 1, the

222 professional engineer may specify the collection of the effluent and distribution to a drainfield
 223 that is separated from the seasonal high water table by no less than 6 inches and may be more
 224 than 30 inches below the ground surface, per the requirements of subparagraph (c)5.

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

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

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

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

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

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

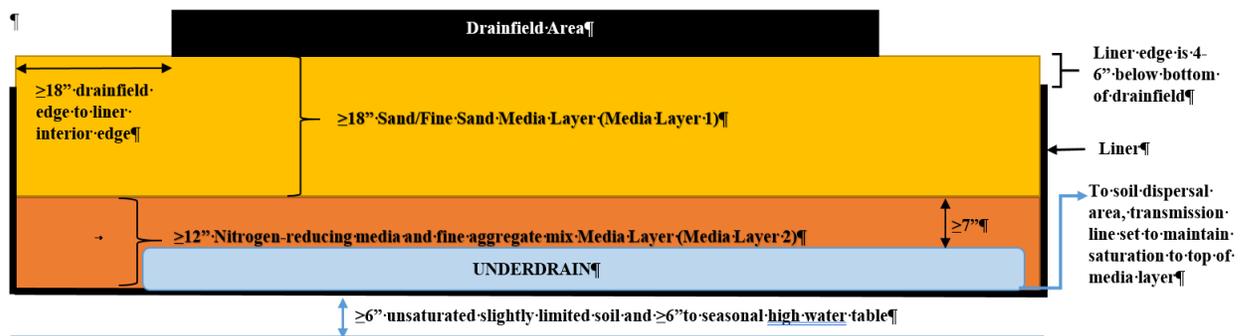
249 12. Setback distances to the liner, or media layers 1 and 2 extending to the absorption
 250 surface of the drainfield shall be reduced by the following:

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

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

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

256



257

258 **Figure 3 – INRB with Liner with underdrain**

259 (d) Prior to covering media layer 2, in addition to the inspections required in rule 64E-
 260 6.003, F.A.C., upon completion of the installation of the media layer 2 but before covering the
 261 media layer, a person installing or constructing the system shall notify the DOH county health
 262 department that the media layer 2 has been installed and shall have that portion of the system

263 inspected by the department. If the inspection of ~~the~~ media layer 2 is the initial inspection of the
264 system, the initial inspection fee in paragraph 64E-6.030(1)(i), F.A.C., shall be paid. If an initial
265 inspection occurred before the media layer 2 inspection, the reinspection fee in paragraph 64E-
266 6.030(1)(j), F.A.C., shall be paid.

267 (c) Renumbered to (e) No change.

268 (d) Renumbered to (f) No change.

269 64E-6.009(8)- Alternative system component and design approval – After innovative system
270 testing is completed, requests for approval of system components and designs which are not
271 specifically addressed in this chapter shall be submitted to the department’s ~~Bureau of~~ Onsite
272 Sewage Programs.

273 (a) No Change.

274 (b) In addition to those items listed in paragraph 64E-6.009~~(8)~~(7)(a), F.A.C., manufacturers
275 of drip effluent disposal system distribution lines, emitters, and components shall apply for and
276 obtain approval from the ~~Bureau of~~ Onsite Sewage Programs for specific model numbers or part
277 numbers prior to inclusion of the components on any site-specific permit application.

278 Manufacturer’s of drip effluent disposal system components shall provide design and installation
279 manuals for engineering and construction guidance. Design manuals shall include tables that
280 detail flow rates vs. pressure and pressure loss per length(s) of distribution pipe.

281 (c) through (e) No Change.

282 (9)-(10) No Change.

283 (11) All materials incorporated herein may be obtained from the ~~Bureau of~~ Onsite Sewage
284 Programs at www.MyFloridaEH.com or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida
285 32399-1713.

286
287 *Rulemaking Authority 381.0065(3)(a) FS. Law Implemented 381.0065 FS. History—New 12-22-*
288 *82, Amended 2-5-85, Formerly 10D-6.49, Amended 3-17-92, 1-3-95, Formerly 10D-6.049,*
289 *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.*
290

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
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

1 **64E-6.012 Standards for the Construction, Operation, and Maintenance of Aerobic Treatment**
2 **Units.**

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

5 (1) Aerobic ~~treatment units systems~~ designed to treat up to 1500 gallons of sewage waste per day shall
6 be listed by a third party certifying program approved by the State Health Office. Aerobic treatment units
7 shall be in compliance with at least one of the following standards: for Class I systems as defined by
8 ANSI/NSF International Standard Number 40, revised April 2013~~July 2000~~, herein incorporated by
9 reference; nitrogen reduction as defined by ANSI/NSF International Standard Number 245, revised April
10 2013, herein incorporated by reference; or onsite residential and commercial water reuse treatment systems
11 as defined by ANSI/NSF Internation Standard Number 350, revised December 2012, herein incorporated
12 by reference. An approved third party certifying program shall comply with the following provisions in
13 order for units which it has certified to be approved for use in Florida:

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

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

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

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

22 (e) Provide a registered certification mark or seal which must be affixed in a conspicuous location on
23 the units it has certified. This mark or seal will alert persons evaluating or maintaining the unit that the unit
24 is in compliance with the ANSI/NSF Standard appropriate for the application~~40~~.

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

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

30 1. A padlock.

31 2. An "O" ring with twist lock cover requiring special tools for removal.

32 3. Covers weighing 65 pounds or more, net weight.

33 4. A hinge and hasp mechanism which uses stainless steel or other corrosion resistant fasteners to
34 fasten the hinge and hasp to the lid and tank for fiberglass, metal, or plastic lids.

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

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

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

44 (e) Minimum required treatment capacities for systems serving any structure, building or group of
45 buildings shall be based on estimated daily sewage flows as determined from Table IV.
46

TABLE IV
AEROBIC SYSTEMS
PLANT SIZING

RESIDENTIAL:

Number of Bedrooms	Building Area in square feet	Minimum Required Treatment Capacity gallons per day
1 or 2	Up to 1200	400
3	1201-2250	500 400
4	2251-3300	600 500

47 For each additional bedroom or each additional 750 square feet of building area, or fraction thereof,
48 treatment capacity shall be increased by ~~60~~40 gallons.

COMMERCIAL:

Estimated Sewage Flow in gallons per day	Minimum Required Treatment Capacity in gallons per day
0-400	400
401-500	500
501-600	600
601-700	700
701-750	750
751-800	800
801-1000	1000
1001-1200	1200
1201-1500	1500

49
50 Footnotes to Table IV

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

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

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

62 (g) Effluent from an aerobic treatment unit shall be disposed of on the owner's property in
63 conformance with other requirements of this chapter except as provided for in paragraph 64E-6.012(2)(f),
64 F.A.C. Effluent quality which is found to not meet its Class I standards as specified by ANSI/NSF Standard
65 40 shall be reported to the maintenance entity for correction within 10 working days.

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

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

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

81 entity. A system using a manufacturer's unit shall not be approved in the state if the manufacturer cannot
82 demonstrate that there are maintenance entities to service it.

83 (k) A distributor of a specific manufacturer's brand or model of an approved aerobic treatment unit
84 shall provide to the DOH county health department and State Health Office written assurance that spare
85 mechanical and structural parts are available, upon request, for purchase, to all other approved maintenance
86 entities.

87 (l) Where local building occupancy codes require that the DOH county health department approve the
88 means of sewage disposal prior to building occupancy or change of occupancy, and where an aerobic
89 treatment unit is utilized, a current, unexpired aerobic treatment unit maintenance contract between the
90 property owner or lessee and an approved maintenance entity shall be one of the required conditions of
91 system approval.

92 (m) A copy of the signed maintenance agreement between the property owner or property lessee and
93 an approved maintenance entity shall be provided to the DOH county health department by the
94 maintenance entity. The maintenance agreement shall:

95 1. Initially be for a period of at least 2 years and subsequent maintenance agreement renewals shall be
96 for at least 1 year periods for the life of the system.

97 2. Provide that a maintenance entity which desires to discontinue the provision of maintenance
98 services, notify in writing, the property owners and lessees and the DOH county health department at least
99 30 days prior to discontinuance of service.

100 3. Provide that, if a private maintenance entity discontinues business, property owners who have
101 previously contracted with the discontinued maintenance service shall, within 30 days of the service
102 termination date, contract with an approved maintenance service and provide the DOH county health
103 department a copy of the newly signed maintenance agreement.

104 4. Provide that each aerobic unit is inspected by an approved maintenance entity at least two times
105 each year. Aerobic treatment units serving commercial establishments shall be inspected four times per
106 year. The maintenance entity shall furnish to the DOH county health department a listing of all aerobic
107 units inspected or serviced during the respective reporting period. As a minimum, reports shall indicate the
108 system owner or building lessee, the street address of the system, the date of system inspection or service
109 and a statement as to the maintenance or service performed. The maintenance entity shall also include a list
110 of the owners who have refused to renew their maintenance agreement.

111 (n) The DOH county health department shall, at least annually, inspect the maintenance and
112 performance of aerobic treatment units. The DOH county health department shall also inspect each
113 authorized maintenance entity, including review of their service records and maintenance agreements.

114 (3) An aerobic treatment unit used for treating domestic or commercial sewage flows in excess of 1500
115 gallons per day, ~~or a combination of aerobic treatment units treating flows according to 64E-6.004(4)(a) or~~
116 ~~(b), F.A.C.~~ shall be designed and certified by an engineer licensed in the State of Florida. The design shall
117 include an assessment of wastewater strength. The certification shall state that the unit is capable of
118 consistently meeting, at minimum, secondary treatment standards for CBOD₅ and TSS established by DEP
119 in Rule ~~64E-6.025(12)(a) 62-600.420~~, F.A.C. In addition, the following requirements shall also be met:

120 ~~(a) The drainfield system shall meet minimum setback and elevation requirements specified by this~~
121 ~~rule.~~

122 ~~(a)(b)~~ The owner or lessee of a system shall comply with the applicable safety, maintenance and
123 operational requirements of subsection 64E-6.012(2), F.A.C. Unless the system owner or lessee is a state
124 licensed wastewater treatment plant operator, the owner or lessee shall be required to have a system
125 maintenance agreement with a permitted aerobic unit maintenance entity which has at least a Class D state
126 certified operator who has been certified under the provisions of Chapter 61E12-41, F.A.C.

127 ~~(b)(c)~~ A permitted aerobic unit maintenance entity ~~with a minimum Class D certified operator, or a~~
128 ~~system owner or lessee holding at minimum a Class D certification under the provisions of Chapter 61E12-~~
129 ~~41, F.A.C.,~~ shall collect effluent quality samples and submit the sample analysis reports to the DOH county
130 health department. Effluent quality samples for CBOD₅, ~~and~~ suspended solids ~~and fecal coliform~~ shall be
131 collected at least semi-annually and such samples shall be analyzed by a department-approved laboratory.

132 ~~(c)(d)~~ Written sample analysis reports shall be submitted to the DOH county health department by no
133 later than the 15th of the next month following the semi-annual sampling period. However, if the sample
134 analysis for CBOD₅ or suspended solids exceeds secondary treatment standards by more than 100 percent,
135 the maintenance entity or certified operator shall notify the DOH county health department by telephone or
136 in person within 24 hours after receipt of sample analysis results.

137 ~~(d)~~(e) The DOH county health department shall monitor the maintenance and performance of aerobic
138 treatments units as required by paragraph 64E-6.012(2)(m), F.A.C.
139 (4) No aerobic treatment unit shall be serviced or repaired by a person or entity engaged in an aerobic
140 treatment unit maintenance service until the service entity has obtained an annual written permit issued on
141 Form DH 4013 from the DOH county health department in the county where the service company is
142 located. Each service entity shall employ at least one plumbing contractor licensed under Section
143 489.105(3)(m), F.S., septic tank contractor registered under Part III of Chapter 489, F.S., or a state-licensed
144 wastewater treatment plant operator, who is responsible for maintenance and repair of all systems under
145 contract. Application for a Maintenance Service Permit, Form DH 4066, 02/10, herein incorporated by
146 reference, shall be made to the DOH county health department and shall contain the following information:
147 (a) Evidence that the maintenance entity possesses a manufacturer's maintenance and operations
148 manual and has received training from the manufacturer in proper installation and service of the unit and
149 has received written approval from the manufacturer to perform service on their units. The manual shall
150 contain detailed instructions on proper operation and maintenance procedures, a replacement parts list for
151 all models being installed and maintained, a statement giving the capabilities of each unit, instructions on
152 how to detect a malfunctioning unit and what to expect from a properly functioning unit.
153 (b) A signed statement from the applicant attesting that the applicant has adequate staff, possesses
154 proper equipment and has sufficient spare structural and mechanical parts and components to perform
155 routine system monitoring and servicing and is able to make a service response within 36 hours after
156 notification of the need for emergency repairs.
157 (c) Payment of \$25.00 to the DOH county health department per annum for the aerobic treatment unit
158 maintenance service permit.
159 (5) Emergency service necessary to prevent or eliminate an imminent sanitary nuisance condition
160 caused by failure of a mechanical component of any aerobic treatment unit shall be reported by the
161 approved aerobic unit maintenance entity, in writing, to the DOH county health department no later than 5
162 working days after the date of the emergency service.
163 (6) All materials incorporated herein may be obtained from the Bureau of Onsite Sewage Programs at
164 www.MyFloridaEH.com or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida 32399-1713.
165 *Rulemaking Authority 381.0065(3)(a), 489.553(3) FS. Law Implemented 381.0065, Part I 386 FS. History—*
166 *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-*
167 *26-06, 6-25-09, 4-28-10,_____.*

168

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

1 **64E-6.009 Alternative Systems.**

2 (1) through (4) No change

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

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

8 1. through 19. No change

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

12 21. through 25. No change

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

16 27. For drip emitter lines using non-pressure-compensating emitters, the maximum elevation difference shall be four
17 inches between the highest and the lowest emitter in any individual line segment between the supply and the return line. For
18 drip emitter lines using pressure-compensating emitters, there shall be no more than 18 inches of elevation difference between
19 the highest and lowest emitter in any line. Neither property slope nor drip emitter line slope shall result in the depth of cover
20 over the drip emitter lines to be outside of the range permitted in 64E-6.009(5)(a)19.

21
22 (b) No change

23 (6) through (10) No change

24 *Rulemaking Authority 381.0065(3)(a) FS. Law Implemented 381.0065 FS. History—New 12-22-82, Amended 2-5-85, Formerly*
25 *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,*
26 *6-25-09, _____.*

27

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:
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

1 **64E-6.009 Alternative Systems.**

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

8 (1) through (6) No change

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

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

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

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

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

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

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

30 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
31 the year. There shall be at least 6 inches of unsaturated slightly limited soil between the bottom of the liner and the seasonal
32 high water table.

33 7. The media layer with liner shall extend beneath the entire drainfield absorption surface to a point at least 3.5 feet beyond
34 the perimeter of any portion of the drainfield absorption surface and any other effluent release point. For repairs, the 3.5 feet
35 dimension may be reduced to 1.0 feet if necessary to comply with a setback or if physical room is unavailable. Maintaining the
36 3.5 feet dimension shall have a protection factor of 5 in determining the relative priority of competing factors in the application
37 of rule 64E-6.015 Table V. No part of the liner shall be placed within 18 inches of the pump or treatment tank.

38 8. An example of nitrogen-reducing media is lignocellulosic material such as chips or shavings of untreated lumber,
39 blended urban waste wood mulch, yellow pine sawdust, or 2-inch to 3-inch wood chips. The nitrogen-reducing media shall be
40 demonstrated in Florida-based studies to be effective at providing a substrate for denitrification.

41 9. The nitrogen-reducing media shall comply with the provisions of 64E-6.0151, FAC.

42 10. The soil layer between the infiltrative surface of the drainfield and the media layer shall extend beneath the entire
43 drainfield absorption surface and to a point at least 3.5 feet beyond the perimeter of any portion of the drainfield absorption
44 surface and any other effluent release point and shall consist of fine aggregate having a texture of sand or fine sand but
45 excluding:

46 a. those having color values less than or equal to 4 with chromas less than or equal to 3; or

47 b. those with colors on the gley charts.

48 11. The media layer shall be a combination of nitrogen-reducing media and fine aggregate, which shall be composed of
49 40-60% nitrogen-reducing media by volume, with the remainder to be fine aggregate. The media layer shall not be installed
50 when the observed water table is at or above the lowest depth of the media layer. The fine aggregate to be mixed with the
51 nitrogen-reducing media shall be one or more of the following textures: coarse sandy loam, sandy loam, loamy sand, fine
52 sandy loam, very fine sand, loamy fine sand, and loamy very fine sand; and shall conform to the colors in subparagraph (a)10.
53 above. The media layer shall be thoroughly mixed while the soil is in a non-plastic state, with the constituents uniformly
54 distributed when installed.

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

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

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

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

76
77 15. Prior to the department's construction inspection, the designer shall provide an as-built cross section and plan view of
78 the installed nitrogen-reducing media liner system components.

79 16. The designer may specify methods to replenish media and remove spent media if the continued presence of such spent
80 media appreciably reduces the efficacy of the process provided the methods do not compromise the efficacy of the system.

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

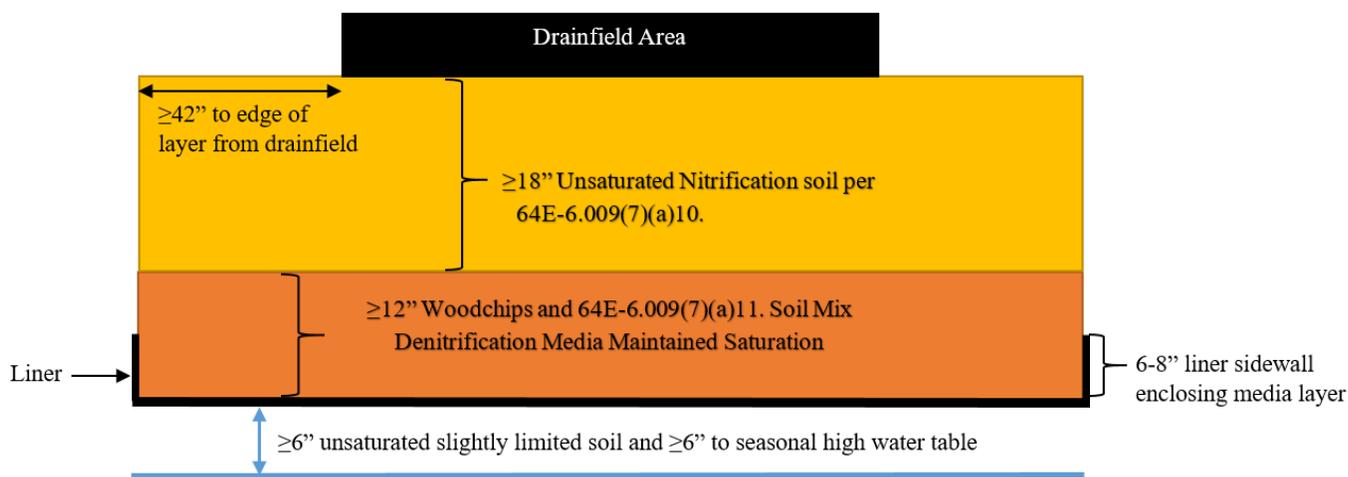
84 18. Any seams or penetrations through the liner shall be sealed in accordance with the liner manufacturer's instructions to
85 prevent leakage for the life of the liner.

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

88 a. Except for building foundations, vertical obstructions and pilings for elevated structures, where the required setback is
89 ≤5 feet, the setback shall be reduced to one foot.

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

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



93
94 Figure 1 Standard Layered Nitrogen Reducing System

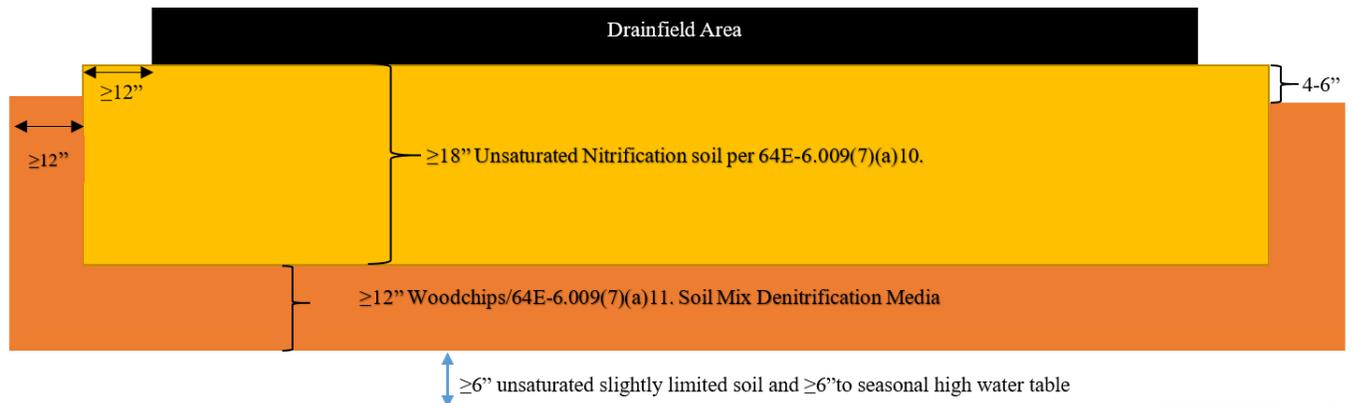
95 (b) Variants to the Standard Layered Nitrogen Reducing System shall be allowed in compliance with the requirements of
96 this subsection. The target level for mean total nitrogen (TN) removal efficiency shall be a minimum of 65%, however if the
97 Standard Layered Nitrogen Reducing System achieves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

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

101 a. The drainfield shall be installed over sand fill material that is at least 18 inches thick and conforms to the textures and
102 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
103 centered above the sand fill area.

104 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
105 entire drainfield absorption surface and extends at least 24 inches beyond the perimeter of any portion of the drainfield
106 absorption surface and any other effluent release point. The media layer shall also extend upward along the boundary of the
107 sand fill material to a point four to six inches below the bottom of the drainfield. The drainfield shall be centered above the
108 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
109 installed when the observed water table is at or above the lowest depth of the media layer. The bottom of the media layer shall
110 be at least 6 inches above the wet season water table.

111 c. This variant does not include a liner beneath the denitrification media. The samples for this variant shall be collected via
112 lysimeter or by other method agreed to by the design engineer and the Onsite Sewage Program office engineer.



113
114 Figure 2 – Variant One

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

116 a. The drainfield shall be installed over sand fill material that is at least 18 inches thick and conforms to the textures and
117 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
118 above the sand fill area.

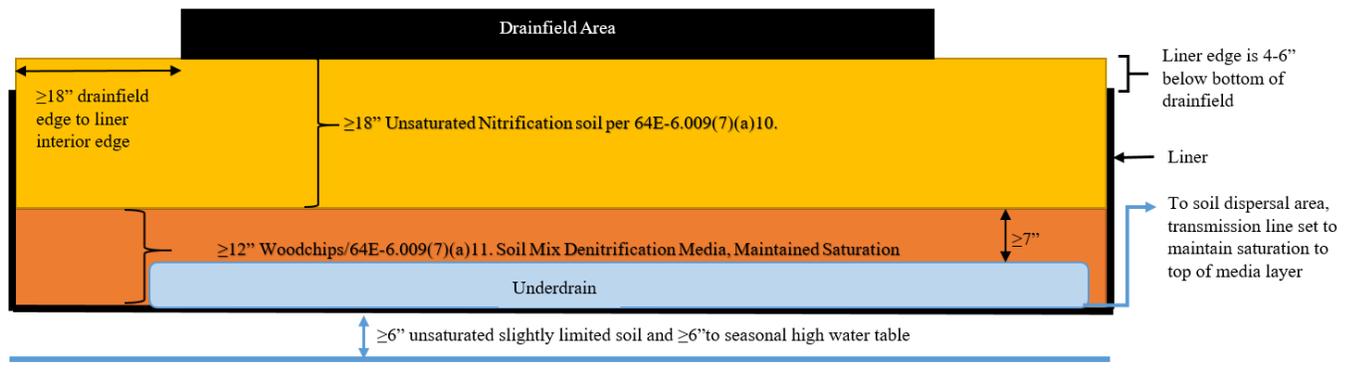
119 b. Below the layer required in 2.a., there shall be a media layer that is at least 12 inches thick and extends at least 18 inches
120 past the perimeter of the drainfield. The media layer shall conform with 64E-6.009(7)(a)8. and 64E-6.009(7)(a)11.

121 c. An impermeable liner meeting the construction standards of 64E-6.009(7)(a)4. shall be installed below the
122 denitrification media which extends to a point at least 18 inches past the perimeter of the drainfield, at which point the liner
123 shall be directed upwards toward the ground surface maintaining contact with the layers described in 2.a. and b., stopping at a
124 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
125 18 inches below the infiltrative surface of the drainfield. The media layer with liner shall extend beneath the entire drainfield
126 absorption surface and extend at least 18 inches beyond the perimeter of any portion of the drainfield absorption surface and
127 any other effluent release point. No part of the liner shall be placed within 18 inches of the pump or treatment tank.

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

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

136 f. The minimum thickness of the media layer between the top of the underdrain and the top of the media shall be 7 inches.



137
138 Figure 3 – Variant Two

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

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

143 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
 144 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
 145 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.

146 c. An impermeable liner meeting the construction standards of 64E-6.009(7)(a)4. shall be installed along the sidewalls of
 147 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
 148 inches into the layer required in 3.b.

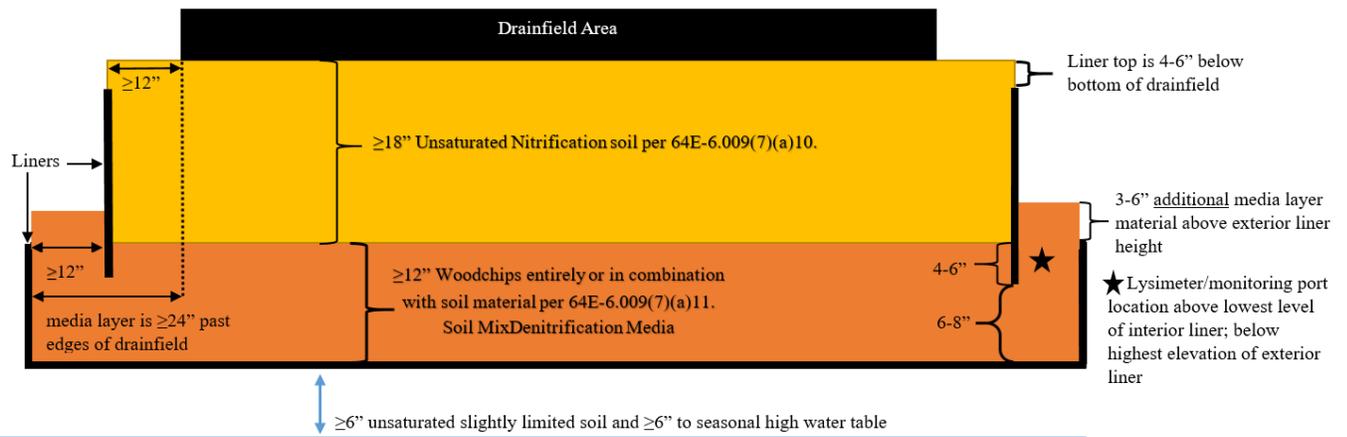
149 d. An impermeable liner shall be installed below the layer required in 3.b. and shall extend upwards along the perimeter of
 150 denitrification media layer terminating at the top of the layer required in 3.b.

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

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

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

158 h. Sample collection points shall include the region between the two liners at an elevation 6 to 8 inches above the bottom
 159 of the liner described in 3.d.



160
161 **Figure 4 – Variant Three**

162 (c) Planned pilot system testing shall be required for no less than five and up to ten systems of the Standard Layered
 163 Nitrogen Reducing System as well as each of the variants. The installer of these specific systems shall notify the local county
 164 health department and the Onsite Sewage Program office as early as feasible, but not less than 48 hours prior to any
 165 construction activities. A variant system design shall be installed and monitored in conformance with this subsection prior to
 166 the variation being allowed for unlimited use in the state.

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

172 1. Monitoring locations and devices shall allow for the measurement of liquid levels and obtaining samples at the
 173 following locations as a minimum requirement: prior to entering the drainfield, prior to entering the denitrifying media, after
 174 leaving the denitrifying media, and in shallow groundwater influenced by the effluent. Except for Variant 2, at least six
 175 sampling sites for effluent after leaving the media layer shall be located immediately adjacent to and along the outside
 176 perimeter of the media layer, to collect samples from a depth that is most likely to directly distribute effluent from the media
 177 layer, and shall include the following locations:

- 178 a. the midpoint, plus or minus one foot, of the media layer along its shortest dimension as well as its opposite side
- 179 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
 180 opposite side.

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

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

189 3. The analytical parameters for sample analysis at the appropriate location for each sampling event shall include at least
 190 concentrations of total nitrogen, the sum of total Kjeldahl nitrogen, and nitrite/nitrate-nitrogen, and an analyte that will assess

191 dilution. In addition, dissolved oxygen, CBOD5, TSS, and fecal coliform shall be determined in the effluent leaving the
192 denitrifying media.

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

195 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
196 in use. At a minimum, four successful sampling events shall be reported for each pilot system. A successful sampling event is
197 defined as one where all the required analytes are reported at each sampling location. Monitoring devices to facilitate long-term
198 monitoring shall be installed when the system is constructed and left in place after the pilot phase.

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

203 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
204 be provided to the Onsite Sewage Program Office for evaluation. Those systems that do not perform to the average nitrogen
205 removing levels of the standard layered nitrogen reduction system shall not be allowed for installation after the pilot project.

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

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

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

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

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

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

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

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

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

231 subsection. A copy of the written requests shall be copied to the Onsite Sewage Program office engineer.

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

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

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

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

247

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

249 *Rulemaking Authority 381.0065(3)(a) FS. Law Implemented 381.0065 FS. History—New 12-22-82, Amended 2-5-85, Formerly*
250 *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,*
251 *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

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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) FS. 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,

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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 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-6.015 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:

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(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 onsite sewage system which restricts replacement 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 is to 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.

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(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 V

Repair System Setback Requirements

Permit Date of Original System	Description of Setback (Separation)	Protection Factor	Current Required Setback	Absolute Minimum Setback
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to
1-1-72

Potable Well

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

Bottom of Drainfield Absorption Surface to Wet Season Water Table

5

24 inches Greatest of the Following:
a) Maximum Separation (>126 inches)
b) Original Separation (if >126 inches)
c) 126 inches

Effective Soil Depth

5

42 inches Greatest of the Following:
a) 24 inches
b) Maximum Separation (>12 inches)
c) 12 inches

System to Surface Water

4

50 feet Greatest of the Following:
a) Maximum Setback (>25 feet and <50 feet)
b) Original Setback (if >25 feet)
c) 25 feet

System to Non-Potable Well

3

50 feet Greatest of the Following:
a) Maximum Setback (>25 feet and <50 feet)
b) Original Setback (if >25 feet)
c) 25 feet

	Drainfield Sidewall	2		4 feet	Greatest of the
	System to Property Line or Building Foundation	1		5 feet	Greatest of the Following: a) Maximum Setback (>2 feet) b) 2 feet
Prior to 1-1-1983	System to a Private Potable Well	6	75 feet		Greatest of the Following: a) Maximum Setback (<75 feet and >50 feet) b) Original Setback (if >50 feet) c) 50 feet
	Bottom of Drainfield Absorption Surface to Wet Season Water Table	5	24 inches		Greatest of the Following: a) Maximum Separation (<24 inches and >12 inches) b) Original Separation (if >12 inches) c) 12 inches
	Effective Soil Depth	5	42 inches		Greatest of the Following: a) 36 inches b) Maximum Separation (> 24 inches) c) 24 inches
	System to Surface Water	4	75 feet		Greatest of the Following: a) Maximum Setback (<75 feet and >50 feet) b) Original Setback (if >50 feet) c) 50 feet

	System to Non-Potable Well	3	50 feet	Greatest of the Following: a) Maximum Setback (<50 feet and >25 feet) b) Original Setback (if >25 feet) c) 25 feet
	Drainfield Sidewall to Start of Slope	2	4 feet	Greatest of the Following: a) Maximum Separation (>2 feet) b) 2 feet
	System to Property Line or Building Foundation	1	5 feet	Greatest of the Following: a) Maximum Setback (>2 feet) b) 2 feet
1-1-83 to Present	System to a Private Potable Well	6	75 feet	75 feet
	Bottom of Drainfield Absorption Surface to Wet Season Water Table	5	24 inches	24 inches
	Effective Soil Depth	5	42 inches	Greatest of the Following: a) Maximum Separation (>36 inches) b) 36 inches
	System to Surface Water	4	75 feet	Greatest of the Following: a) Maximum Setback (if >50 feet) b) 50 feet
	System to Non-Potable Well	3	50 feet	50 feet
	Drainfield Sidewall To Start of Slope	2	4 feet	Greatest of the Following: a) Maximum setback (>2 feet) b) 2 feet

System to Property Line or Building Foundation	1	5 feet	Greatest of the Following: a) Maximum Setback (if >2 feet) b) 2 feet
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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 dosed. 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 leaks, 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.

(6) 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

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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.

(128) 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 is 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.

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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 Tabled by TRAP:

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

1 **64E-6.003 Permits.**

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

10 (2) through(6) No change

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

12 *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-*
13 *6.043, Amended 3-22-00, 4-21-02, 5-24-04, 11-26-06, 6-25-09, .*

14

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.	\$55
(h) Research/Training surcharge, new and repair permits.	\$5
(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.	\$150
(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

1 **64E-6.005 Location and Installation.**

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

7 (1) No change

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

12 (a) No change

13 (b) Systems shall not be located within 10 feet of water storage tanks in contact with the ground or potable water lines
14 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
15 from the nearest portion of the system or the water lines themselves consist of schedule 40 PCV or stronger. In no case shall
16 the water line be located within 24 inches of the onsite sewage treatment and disposal system. Potable water lines within 5 feet
17 of the drainfield shall not be located at an elevation lower than the drainfield absorption surface. Non-potable water lines shall
18 not be located within 24 inches of the system without backflow devices per Sections 381.0065(2)(1)1. and 2., F.S., being
19 installed on the water line to preclude contamination of the water system. Systems shall not be constructed within 10 feet of
20 DEP-regulated water mains as defined in rule 62-555.314, F.A.C.

21 (c) No change

22 (3) through (9) No change

23 *Rulemaking Authority 381.0065(3)(a), 489.553, 489.557(1) FS. Law Implemented 381.0065, 489.553 FS. History—New 12-22-*
24 *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-*
25 *00, 5-24-04, 6-25-09, .*

26
27
28 **62-555.314 Location of Public Water System Mains.**

29
30 **For the purpose of this section, the phrase “water mains” shall mean mains, including treatment plant**
31 **process piping, conveying either raw, partially treated, or finished drinking water; fire hydrant leads; and**
32 **service lines that are under the control of a public water system and that have an inside diameter of three**
33 **inches or greater.**

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

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

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

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

48 (d) **New or relocated, underground water mains shall be laid to provide a horizontal distance of at least**
49 **ten feet between the outside of the water main and all parts of any existing or proposed “on-site sewage**
50 **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.

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Date Initially Heard by TRAP: 12/2/2010
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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(44)(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 (f) 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 mounds or fill systems.

- (2) 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.

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),

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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:

Fill Material	Maximum Sewage Loading Rate to Mound Drain Trench Bottom Surface in gallons Per square foot per day	Maximum Sewage Loading Rate to Mound Absorption Bed Bottom Surface in gallons per square foot per day
Sand; Coarse Sand; Loamy Coarse Sand; and Fine Sand	0.80	0.60
Sandy Loam; Coarse Sandy Loam; and Loamy Sand	0.65	0.40
Fine Sandy Loam; Very Fine Sand; Loamy Fine Sand; and Loamy Very Fine Sand	0.35	0.25

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(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 (j) No change

(4) 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.

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, 10/96, hereby incorporated by reference, only after the submission of an application accompanied by the necessary exhibits and fees. Form DH 4015, 10/96, 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.

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(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

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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:

Separate	Diameter Limit In Millimeters
Very coarse sand	2.00-1.00
Coarse sand	1.00-.50
Medium sand	.50 -.25
Fine sand	.25-.10
Very fine sand	.10-.05
Silt	.05-.002
Clay	less than .002

(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 (SL) – 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 (SIL) – 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.

- 52 1. Loamy coarse sand (LCOS) – 25 percent or more very coarse and coarse sand and less than 50 percent any other single
53 grade of sand.
- 54 2. Loamy sand (LS) – 25 percent or more very coarse, coarse, and medium sand and less than 50 percent either fine sand
55 or very fine sand.
- 56 3. Loamy fine sand (LFS) – 50 percent or more fine sand; or less than 50 percent very fine sand and less than 25 percent
57 very coarse, coarse, and medium sand.
- 58 4. Loamy very fine sand LVFS) – 50 percent or more very fine sand.
- 59 (c) Sandy loams – 20 percent or less clay and 52 percent or more sand and the percentage of silt plus twice the percentage
60 of clay exceeds 30; or less than 7 percent clay, less than 50 percent silt, and between 43 and 52 percent sand.
- 61 1. Coarse sandy loam (COSL) – 25 percent or more very coarse and coarse sand and less than 50 percent any other single
62 grade of sand.
- 63 2. Sandy loam (SL) – 30 percent or more very coarse, coarse, and medium sand, but less than 25 percent very coarse and
64 coarse sand, and less than 30 percent either fine sand or very fine sand.
- 65 3. Fine sandy loam (FSL) – 30 percent or more fine sand and less than 30 percent very fine sand; or between 15 and 30
66 percent very coarse, coarse, and medium sand; or more than 40 percent fine and very fine sand, at least half of which is fine
67 sand, and less than 15 percent very coarse, coarse, and medium sand.
- 68 4. Very fine sandy loam (VFSL) – 30 percent or more very fine sand; or more than 40 percent fine and very fine sand, at
69 least half of which is very fine sand, and less than 15 percent very coarse, coarse, and medium sand.
- 70 (d) Loam (L) – 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand.
- 71 (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
72 clay.
- 73 (f) Silt (SI) – 80 percent or more silt and less than 12 percent clay.
- 74 (g) Sandy clay loam (SCL) – 20 to 35 percent clay, less than 28 percent silt, and 45 percent or more sand.
- 75 (h) Clay loam (CL) – 27 to 40 percent clay and 20 to 45 percent sand.
- 76 (i) Silty clay loam (SICL) – 27 to 40 percent clay and less than 20 percent sand.
- 77 (j) Sandy clay (SC) – 35 percent or more clay and 45 percent or more sand.
- 78 (k) Silty clay (SIC) – 40 percent or more clay and 40 percent or more silt.
- 79 (l) Clay (C) – 40 percent or more clay, less than 45 percent sand, and less than 40 percent silt.

80 *Rulemaking Authority 381.0011(4),(13), 381.0065(3)(a) FS. Law Implemented 381.0065, 381.00655 FS. History—New 12-22-*
81 *82, Amended 2-5-85, Formerly 10D-6.58, Amended 3-17-92, 1-3-95, Formerly 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

1 **Yellow highlights are areas of change from last trap approval**

2 64E-6.017 Definitions.

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

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

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

7 (5) (4) Minimum level of waste treatment – a treatment which will provide a recovered water product that
8 contains not more, on a permitted annual average basis, than the following concentrations from a sampling point
9 located following the final design treatment step of the onsite sewage treatment and disposal system:

- | | |
|--|----------------------|
| (a) Biochemical Oxygen Demand (CBOD ₅) | 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 ± |

10

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

12 Rulemaking Authority ~~381.0011(4), (13), 381.006, 381.0065(3)(a), (4)(1)(k) FS., Ch. 99-395, LOF.~~ Law

13 Implemented ~~154.01, 381.001(2), 381.0011(4), 381.006(7), 381.0061, 381.0065, 381.00655, 386.041 FS., Ch. 99-~~
14 ~~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, .

15 64E-6.018 System Location, Design and Maintenance Criteria.

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

24 (a) [U.S. Department of Agriculture Natural Resources Conservation Service \(USDA-NRCS\) soils maps](#)

25 [and soil interpretation records.](#)

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

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

32 [\(2\) Effluent loading rates for various onsite sewage treatment and disposal system components installed under](#)
33 [this part shall not exceed the following:](#)

(a) Nutrient-reducing material-lined drainfield receiving effluent from a performance-based treatment system.	1.7 gallons per day per square foot
(b) Sand-lined drainfield receiving effluent from a performance-based treatment system	1.3 gallons per day per square foot
(c) Sand-lined drainfield receiving effluent from an aerobic treatment unit	1.1 gallons per day per square foot
(d) Sand-lined drainfield receiving effluent from a septic tank	0.9 gallons per day per square foot
(e) Mineral aggregate filter receiving effluent from an aerobic treatment unit	5.5 gallons per day per square foot
(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.	8 gallons per day per square foot

34 [\(3\) All new, modified and repaired onsite sewage treatment and disposal systems shall be performance-based](#)
35 [treatment systems designed by an engineer-~~licensed in the State of Florida~~, permitted in accordance with Part IV of](#)
36 [this chapter](#) and shall meet the minimum level of waste treatment as defined in [section Rule 64E-6.017, F.A.C.](#) All
37 receptacles subject to a positive buoyancy exposure shall be anchored or otherwise weighted to prevent flotation
38 during flooding periods. The [engineer's design shall evaluate the](#) receptacles ~~shall be evaluated~~ for buoyancy while
39 in their normal operating condition.

40 ~~(4)~~ (4) An onsite sewage treatment and disposal system which meets the location, construction, maintenance
41 and operational requirements of [this section paragraphs 64E-6.018\(1\)\(a\) or \(b\), F.A.C.](#), shall be approved, provided
42 that if an aerobic treatment unit is a component of the system design, the certification, construction, operational and
43 maintenance requirements of Rule 64E-6.012, F.A.C., shall also be met. [The design engineer may specify an](#)
44 [aerobic treatment unit with a minimum treatment capacity equal to the estimated sewage flow in Table I in lieu of](#)
45 [using the values in Table IV when the aerobic treatment unit is part of a performance-based treatment system](#)

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

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

53 [2. If the nutrient-reducing material is more coarse than the quartz sand required in subparagraph 64E-](#)
54 [6.018\(4\)\(b\)1., the nutrient reducing material shall overlie a 12 inch thick layer of quartz sand meeting the particle](#)
55 [size requirements for sand liners in subparagraph 64E-6.018\(4\)\(b\)1.](#)

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

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

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

66 ~~4. 3.~~ [The bottom of the drainfield shall be at least 24 inches above the wet season water table.](#) The bottom
67 surface of the nutrient reducing material layer shall be at least 12 inches above [the wet season water table.](#) [The](#)

68 bottom surface of the sand layer, if required, shall be at or above the elevation of the wet season water table. ~~mean~~
69 ~~high water.~~

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

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

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

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

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

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

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

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

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

94 1. An injection well shall not be permitted or installed under the provisions of this part in any area designated
95 by the United States Environmental Protection Agency or the Florida Department of Environmental Protection as

96 having a single or sole source aquifer. Single source aquifer is defined in subsection 62-520.200(14), F.A.C.

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

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

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

111 5. Prior to discharge into an injection well, effluent shall pass through an unsaturated mineral aggregate filter
112 unit as described in this paragraph or through a filter unit that has been determined by the State Health Office to
113 allow the discharge of no more than 5 mg/L of CBOD₅ and TSS from the filter and at a minimum shall provide a
114 50% reduction in CBOD₅ and TSS. The unsaturated mineral aggregate filter shall be designed in accordance with
115 the following:

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

124 shall provide certification from the aggregate supplier that the aggregate meets requirements of this sub-paragraph.
125 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
126 filter shall be at least 18 inches above the elevation of the wet season water table and the filter shall be capped with a
127 layer of slightly limited soil no less than 6 nor more than 12 inches thick. The design engineer may choose to use 24
128 inches of phosphorous adsorbing material in lieu of the 24-inch layer of filter material provided the effective size of
129 the phosphorous adsorbing material meets the particle size **specifications of this sub-paragraph.**

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

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

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

146 ~~5. Prior to discharge into an injection well, effluent shall be disinfected by chlorination or other disinfection~~
147 ~~method approved by the State Health Office. A minimum disinfection level equivalent to a free chlorine residual of~~
148 ~~0.5 milligrams per liter measured at the point of effluent discharge after a minimum chlorine contact time of 15~~
149 ~~minutes into the injection well, shall be maintained in the effluent at all times.~~

150 7. 6. An injection well to receive an estimated daily domestic sewage flow not exceeding 2000 gallons per day
151 shall meet minimum construction criteria a., b. and c. of this sub-paragraph. The **Monroe County Health Department**

152 ~~shall be notified by the~~ well driller shall notify the county health department regarding the time when the well will
153 be drilled so the ~~county health~~ department can schedule observation of well construction. The ~~DOH County Health~~
154 ~~Department shall not approve an~~ injection well shall not be approved for use until the well driller has certified, in
155 writing to the ~~department~~ DOH County Health Department, that the well has been installed in compliance with the
156 provisions of this sub-paragraph. The inspection fee for the construction of an injection well shall be \$125.00.

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

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

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

166 ~~8. 7.~~ A minimum of one maintenance visit every ~~six~~ ~~four~~ months shall be made to those systems using injection
167 wells for effluent disposal. The visit shall include an inspection of any filter units and the chlorination unit and
168 include information on chlorine residuals to assess compliance with the disinfection requirements of this rule ~~any~~
169 ~~filter units~~. When an aerobic treatment unit is a component of the onsite sewage treatment and disposal system,
170 documents and reports required in Rule 64E-6.012, F.A.C., shall also include the results of aerobic treatment unit
171 inspections ~~and shall include information on chlorine residuals to assess compliance with the disinfection~~
172 ~~requirements of this rule~~.

173 ~~9. 8.~~ Within 90 days following the discontinuation of the use of ~~If~~ an injection well ~~is discontinued~~ for effluent
174 disposal the, the well owner shall obtain an abandonment permit, Form DH 4016, from the department. The
175 injection well shall be properly abandoned and plugged by filling the injection well from bottom to top with cement
176 grout ~~or by filling the open hole from the bottom of the hole to one foot below the bottom of the casing with gravel~~
177 that meets the size requirements for drainfield aggregate in paragraph 64E-6.014(5)(c), and filling the remainder of
178 the injection well with cement grout. The Monroe County Health Department shall be notified by the well driller,
179 septic tank contractor, or state-licensed plumber at least two work days prior to the time when the well will be

180 abandoned so the department can schedule observation of the entire well abandonment procedure. The department
181 shall not approve an injection well abandonment until the well driller, septic tank contractor, or state-licensed
182 plumber has certified in writing that the well has been abandoned in compliance with the provisions of this sub-
183 paragraph. If the abandonment of the well is not ready to be inspected at the time of the inspection of the
184 abandonment of the treatment receptacles, the inspection fee for the abandonment of an injection well shall be
185 \$75.00 and shall be paid to the department prior to the inspection.

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

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

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

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

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

201 2. Where the nutrient-adsorbing material will be used to underlie a drainfield in accordance with paragraph
202 64E-6.018(4)(a), the documentation from the nutrient-adsorbing material supplier or independent testing
203 organization shall include either the effective grain size in millimeters and the uniformity coefficient of the material
204 or a sieve analysis of the material showing the percentage passing a U.S. Standard Number 18 sieve and the
205 percentage passing a number 60 sieve.

206 3. Where the design engineer has chosen to use 24 inches of phosphorous adsorbing material in lieu of the 24-
207 inch layer of filter material as allowed in 64E-6.018(4)(c)5.a., the documentation from the nutrient-adsorbing

208 material supplier or independent testing organization shall include either the effective size in millimeters and the
209 uniformity coefficient of the material or the Florida Department of Transportation aggregate classification number
210 for the material.

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

216 (5) (3) The owner or lessee of a performance-based treatment system shall obtain and maintain a maintenance
217 contract with an approved maintenance entity.

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

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

227 1. The address of the system.

228 2. Date and time of inspection.

229 3. Sample collection time and date, and person who collected sample.

230 4. Results of all sampling.

231 5. Volume of effluent treated, to include total monthly and daily average.

232 6. Maintenance performed.

233 7. Problems noted with the treatment system and actions taken or proposed to overcome them.

234 (6) All systems shall be designed and constructed with sampling ports that permit access for collecting samples
235 to assess compliance with the minimum level of treatment specified in section 64E-6.017, FAC.

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(7) 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. ~~FIX THIS: 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.

Rulemaking Authority ~~381.0011(4), (13), 381.006, 381.0065(3)(a), (4)(1) FS., Ch. 99-395, LOF.~~ Law Implemented 381.0065, 381.00655 FS., ~~Ch. 99-395, LOF.~~ History–New 7-15-86, Amended 3-17-92, 1-3-95, Formerly 10D-6.063, Amended 3-3-98, 3-22-00, 4-21-02, 11-26-06, ____.

64E-6.0181 ~~System Repair and Cesspit and Undocumented System Replacement and Interim System Use~~

(1) Where a property is determined to have a cesspit or an undocumented system, the cesspit or undocumented system shall be required to be replaced with an onsite sewage treatment and disposal system complying with Rule 64E-6.018, F.A.C., ~~except as provided for in subsection (2).~~

264 (2) In areas that are scheduled to be served by a central sewer by December 31, 2015, where there is
265 documentation from the sewer utility that the property is scheduled to be served by December 31, 2015 and there is
266 documentation from the sewer utility or from the county tax collector's office that the property owner has paid or
267 has signed an agreement to pay for connection to the central sewer system, an onsite sewage treatment and disposal
268 system requiring repair shall be repaired to the standards in this section. ~~sewage facility before July 1, 2010, interim~~
269 ~~construction standards specified in subsection 64E-6.0181(3), F.A.C., for new, modified, expanded or existing onsite~~
270 ~~sewage treatment and disposal systems or to replace cesspits or undocumented systems shall be allowed.~~

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

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

- 276 ~~1. An enforceable contract to provide the central sewage and collection system has been signed;~~
277 ~~2. The contract contains a binding schedule for connection of the onsite sewage treatment and disposal systems~~
278 ~~to the central sewage facility; and~~
279 ~~3. There is an enforceable requirement for abandonment of the onsite sewage treatment and disposal systems.~~

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

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

284 ~~(3) Interim systems standards shall be:~~

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

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

- 288 1. A tank need not be replaced as part of the repair if the **department** determines the tank to be free of
289 observable defects, constructed of approved materials, and if such tank has an effective capacity within two tank
290 sizes of the capacities required by Table II. In addition, the tank shall be pumped and a solids deflection device **or**
291 **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

292 replaced as part of the repair, it shall be replaced with a tank meeting the requirements of Table II and 64E-6.013,
293 FAC.

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

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

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

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

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

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

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

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

313 ~~a. For a sand lined drainfield, a minimum 12 inch thick layer of quartz sand shall be placed beneath the bottom~~
314 ~~of the drainfield absorption surface and a minimum 12 inch wide and minimum 24 inch thick layer of quartz sand~~
315 ~~shall be placed contiguous to the drainfield sidewall absorption surfaces in order to provide an additional level of~~
316 ~~effluent treatment prior to effluent passing into the surrounding natural limestone rock. Sand material shall have~~
317 ~~either an effective grain size in the range of 0.25 millimeter to 1.00 millimeter and shall have a uniformity~~
318 ~~coefficient of less than 3.5, or the material shall be of such size whereby at least 90 percent of the sand particles pass~~
319 ~~a U.S. Standard Number 18 sieve and less than 10 percent pass a number 60 sieve. These materials are in the USDA~~

320 ~~soil texture classes known as medium sand and coarse sand. The county health department shall require the installer~~
321 ~~of a sand lined drainfield system to provide certification from the installer's sand supplier that the sand supplied for~~
322 ~~such type of installation meets the requirements of this subsection.~~

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

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

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

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

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

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

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

338 ~~2. Provided a Class I aerobic treatment unit is utilized and provided effluent from the treatment unit, prior to~~
339 ~~discharge into an injection well, is passed through a mineral aggregate filter unit as described in subparagraph 64E-~~
340 ~~6.0181(3)(a)2., F.A.C., or where effluent is passed through a filter unit of another design which has been determined~~
341 ~~by the State Health Office to be at least equal to the mineral aggregate filter unit with regard to sewage treatment~~
342 ~~capability, an injection well shall be approved in compliance with the following:~~

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

346 ~~b. In areas where injection wells are approved for use, the DOH Monroe County Health Department shall be the~~
347 ~~permitting agent for the aerobic treatment unit, the filter unit and the injection well, where the estimated daily~~

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

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

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

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

374 f. The maximum sewage loading rate to the mineral aggregate filter shall be 5.5 gallons per square foot per day
375 based upon the top surface area of the filter layer. The maximum sewage loading rate to an approved filter unit other

376 ~~than a mineral aggregate filter as described in this section shall be evaluated by the State Health Office based on unit~~
377 ~~design, size, filter media characteristics and expected functional life of the unit.~~

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

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

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

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

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

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

403 ~~j. A minimum of one maintenance visit every four months shall be made to those systems using injection wells~~

404 ~~for effluent disposal. In addition to the standard aerobic treatment unit maintenance visit, the visit shall include an~~
405 ~~inspection of the chlorination and filter units. Documents and reports required in Rule 64E-6.012, F.A.C., shall also~~
406 ~~include the results of these inspections and shall include information on chlorine residuals to assess compliance with~~
407 ~~the disinfection requirements of this rule.~~

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

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

413 Rulemaking Authority ~~381.0011(4), (13), 381.0065(3)(a), (4)(l) FS., Ch. 99-395, LOF.~~ Law Implemented 381.0065,
414 381.00655 FS., ~~Chs. 99-395, 2001-337, LOF.~~ History—New 3-3-98, Amended 3-22-00, 4-21-02, 5-24-04, 11-26-06,
415 .
416

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

1 **64E-6.009 Alternative Systems.**

2 Un-numbered introductory paragraph – No change

3 (1) through (4) No change

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

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

9 1. through 26. No change

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

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

14 (6) through (10) No change

15 *Rulemaking Authority 381.0065(3)(a) FS. Law Implemented 381.0065 FS. History–New 12-22-82, Amended 2-5-85, Formerly*
16 *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,*
17 *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

1 **64E-6.003 Permits**

2 (1) No change

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

7 (a) through (b) No change

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

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

14 2. No change

15 (d) through (e) No change

16 (3) through (6) No change

17 Rulemaking Authority 381.0065(3)(a), 489.553(3), 489.557(1) FS. Law Implemented 381.0065, 381.0067, 386.041 FS.
18 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-
19 6.043, Amended 3-22-00, 4-21-02, 05-24-04, 11-26-06, 06-25-09, .

20 **64E-6.004 Application for System Construction Permit.**

21 (1) through (3) No change

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

25 (a) through (j) No change

26 (5) through (9) No change

27 Rulemaking Authority 381.0065(3)(a), 489.553(3) FS. Law Implemented 381.0065, 489.553 FS. History—New 12-22-82,
28 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,
29 3-22-00, 11-26-06, 6-25-09, 4-28-10, .

30 **64E-6.027 Permits.**

31 (1) through (4) No change

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

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

44 (b) through (d) No change

45 (6) through (7) No change

46 Rulemaking Authority 381.0065(3)(a) FS. Law Implemented 381.0065, Part 1 386 FS. History—New 2-3-98, Amended 4-21-02,
47 6-18-03, 6-25-09, 4-28-10, .

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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

1
2 **64E-6.009 Alternative Systems**

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

10 (1) Waterless, incinerating or organic waste composting toilets - may be approved for use if found in
11 compliance with standards for Wastewater Recycle/Reuse and Water Conservation Systems as defined by
12 ANSI/NSF International Standard Number 41, revised [March 28, 2005, or NSF protocol P157 Electrical](#)
13 [Incinerating Toilets - Health and Sanitization, issued April 28, 2000, ~~May 1983~~](#), hereby incorporated by
14 reference, and provided that graywater and any other liquid and solid waste is properly collected and
15 disposed of in accordance with standards established in this Chapter. For residences, the required drainfield
16 absorption surface and unobstructed area of the system treating the remaining sewage flow shall be reduced
17 by 25% when waterless, incinerating or organic waste composting toilets are used exclusively for all toilet
18 wastes. Solids removed from waterless, incinerating or organic waste composting toilets shall be mixed
19 with lime, containerized, and disposed of with the solid waste from the establishment. Liquids discharging
20 from waterless, incinerating or organic waste composting toilets shall be plumbed into the onsite system
21 serving the establishment.
22

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

1 **64E-6.002 Definitions**

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

3 (1) through (12) No change

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

9 (14) through (59) No change

10 Rulemaking Authority 381.0011(4),(13), 381.0065(3)(a), FS. Law Implemented 381.0065, 381.00655, FS. History—New
11 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-
12 00, 11-26-06, .

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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

1 64E-6.026 Applications for Innovative system permits and System Construction Permits
2 (2) Applications for system construction permits - All information required in Part I for an
3 application for system construction permit shall be included as part of the application for
4 a performance-based treatment system. All information shall be dated, signed and
5 sealed by the registered engineer who designed the system, and provided to the
6 department. Upon any change to the design, documentation of any revisions shall be
7 provided to the department and shall be dated, signed and sealed by the registered
8 engineer. Additional information shall include the following:
9
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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

1 64E-6.004(3)

2
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
4 property where the system is to be installed. All site plans shall use standard civil engineering, non-metric scales.
5 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.
6 Smaller scale site plans shall have a margin of error of not more than two feet between the scaled distance and the
7 dimension shown or required. Site plans shall be drawn on Form DOH 4015 or submitted on 8.5x11 inch or up to
8 24x36 inch paper using the scale that maximizes the size of the plan.

9 1. The site plan shall show boundaries with dimensions and any of the following features that exist or that are
10 proposed:

- 11 a. Structures;
- 12 b. Swimming pools;
- 13 c. Recorded easements;
- 14 d. Onsite sewage treatment and disposal system components
- 15 e. Slope of the property
- 16 f. Wells;
- 17 g. Potable and non-potable water lines and valves;
- 18 h. Drainage features;
- 19 i. Filled areas;
- 20 j. Excavated areas for onsite sewage systems;
- 21 k. Obstructed areas;
- 22 l. Surface water bodies; and
- 23 m. Location of the reference point for system elevation.

24 2. If the county health department is responsible for performing the site evaluation, the applicant or applicant's
25 authorized representative shall indicate the approximate location of wells, onsite sewage treatment and disposal
26 systems, surface water bodies and other pertinent facilities or features on contiguous or adjacent property. If the
27 features are within 75 feet of the applicant lot, the estimated distance to the feature must be shown but need not be
28 drawn to scale.

29 3. If the county health department will not be performing the site evaluation, the applicant or authorized agent
30 shall be responsible for the measurements to all features, including the pertinent features within 75 feet of the
31 applicant lot. The location of any public drinking water well, as defined in paragraph 64E-6.002(44)(b), within 200
32 feet of the applicant's lot shall also be shown, with the distance indicated from the system to the well.

33 4. If an individual lot is five acres or greater, the applicant may draw a minimum one acre parcel to scale
34 showing all required features, or the minimum size drawing necessary to properly exhibit all required features,
35 whichever is larger. The applicant must also show the location of that one acre or larger parcel inside the total site
36 ownership.

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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**

TYPE OF ESTABLISHMENT	GALLONS PER DAY
Mobile Home Park	
(a) per single-wide mobile home space, less than 4 single wide spaces connected to a shared or individual onsite system.....	250
(b) per single-wide mobile home space, 4 or more single wide spaces are connected to a shared or individual onsite system	225
(c) per mobile home space used for a mobile home wider than single-wide add per mobile home width increment.....	50

- (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

1 **64E-6.004 Application for System Construction Permit**

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2 (1) through (6) No change

3 (7) Where a property owner proposes to build or has built multiple residences or multiple businesses on a single lot, and
4 splitting the property to separate any of the business or residences will place the onsite sewage treatment and disposal system in
5 violation of this chapter, the property owner must submit, prior to issuance of a construction permit, a written utility easement
6 which has been executed and recorded in the public property records at the county courthouse. The utility easement must bind
7 the property together so that the original lot size is retained for purposes of compliance with all the requirements of Rule 64E-
8 6, and must include provisions for maintaining the onsite sewage treatment and disposal system. (a) Where a property owner
9 proposes to build or has built a single residence or a single business or multiple residences or businesses on multiple lots, the
10 property owner must submit, prior to issuance of a permit, a written utility easement executed and recorded in the public
11 property records at the county courthouse. The utility easement must bind the required property together so that the original
12 lots and their collective size, or part thereof, is retained for purposes of the onsite sewage treatment and disposal system, and
13 must include provisions for maintaining the onsite sewage treatment and disposal system.

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

22 (8) No change

23 Rulemaking Authority 381.0011(4),(13), 381.0065(3)(a), 489.553(3) FS. Law Implemented 381.0065, 489.553, FS.
24 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-
25 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

1 **64E-6.010 Septage and Food Establishment Sludge**

2 (1) through (6) No change

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

8 (a) through (d) No change

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

12 1. date of septage or waste collection

13 2. address of collection

14 3. indicate whether the point of collection is a residence or business and if a business, the type of business

15 4. estimated volume, in gallons, of septage or waste transported

16 5. receipts for lime or other materials used for treatment

17 6. location of the approved treatment facility

18 7. date and time of discharge to the treatment facility

19 8. Acknowledgement from treatment facility of receipt of septage or waste

20 (f) through (v) No change

21 (8) through (10) No change

22 Rulemaking Authority: 381.0011(4), (13), 381.0065(3)(a), 489.553(3), FS. Law Implemented: 381.0012, 381.0061,
23 381.0065, 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,
24 Formerly 10D-6.052, Amended 3-22-00, 05-24-04, 11-26-06, .

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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

1 **64E-6.0101 Portable Restrooms and Portable or Stationary Holding Tanks.**
2 (1) through (6) No change
3 (7) Portable Restrooms, Portable Holding Tanks, Stationary Holding Tanks, Mobile Restroom Trailers, Mobile Shower
4 Trailers, and Portable Sinks
5 (a) through (g) No change
6 (h) Portable restrooms shall be serviced at least weekly and the inside of the structure housing the storage compartment
7 shall be cleaned on each service visit. Each portable restroom service visit shall include the pumping and removal of the waste
8 contents in the waste water tank and the replacement of a toilet deodorant or disinfectant to prohibit the growth of bacteria in
9 the waste tank. The service visit shall include the use of an antiseptic cleaner on the interior compartment of the portable
10 restroom including the interior walls, the toilet seat and surrounding seat top area, the urinal, and the floor. The service visit
11 shall include the replacement of toilet tissue. The exterior of the portable restroom shall be cleaned periodically.
12 (i) through (x) No change
13 (8) No change
14 Rulemaking Specific Authority: 381.0011(4), (13), 381.0065(3)(a), 489.553(3), FS. Law Implemented: 381.0012,
15 381.0065, 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 Tabled by TRAP:

Date Initially Approved by TRAP: 8/27/2009

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

1 **64E-6.008 System Size Determinations**

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

4 (a) through (b) No change

5 **TABLE I**
 6 **For System Design**
 7 **ESTIMATED SEWAGE FLOWS**

8 TYPE OF ESTABLISHMENT	9 GALLONS PER DAY
10 COMMERCIAL:	
11 Mobile Home Park <u>or Recreational Vehicle Park</u>	
12 (a) per single-wide mobile home <u>space or</u>	
13 <u>non-transient recreational vehicle space or</u>	
14 <u>park model</u> space, less than 4 single-wide	
15 spaces connected to a shared onsite system.....	250
16 (b) per single-wide mobile home <u>space or</u>	
17 <u>non-transient recreational vehicle space or</u>	
18 <u>park model</u> space, 4 or more single-wide	
19 spaces connected to a shared onsite system.....	225
20 (c) per double-wide mobile home space <u>or;</u>	
21 <u>non-transient recreational vehicle space</u>	
22 <u>less than 4 double-wide mobile home spaces</u>	
23 <u>connected to a shared onsite system</u>	300
24 (d) per double-wide mobile home space <u>or;</u>	
25 <u>non-transient recreational vehicle space,</u>	
26 <u>4 or more double-wide mobile home spaces</u>	
27 <u>connected to a shared onsite system</u>	275
28 (e) <u>per transient recreational vehicle space for</u>	
29 <u>overnight stay, without water</u>	
30 <u>and sewer hookup per vehicle space.....</u>	50
31 (f) <u>per transient recreational vehicle space for</u>	
32 <u>overnight stay, with water and sewer</u>	
33 <u>hookup per vehicle space.....</u>	75
34 Office building	
35 per employee per 8 hour shift or	15
36 per 100 square feet of floor space, whichever is greater	15
37 Transient Recreational Vehicle Park	
38 (a) Recreational vehicle space for	
39 overnight stay, without water	
40 and sewer hookup per vehicle space.....	50
41 (b) Recreational vehicle space for	
42 overnight stay, with water and sewer	
43 hookup per vehicle space.....	75

44 (2) through (6) No change

45 Specific Authority ~~381.0011(4),(13),~~ 381.0065(3)(a), FS. Law Implemented 381.0065, FS. History—New 12-
 46 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,
 47 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

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**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.

(3) through (7) 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, .

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), FS. Law Implemented: 381.0012, 381.0065, 386.041, FS. History: New 05-24-04, Amended 11-26-06, .

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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 deal 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

1 **64E-6.013 Construction Materials and Standards for Treatment Receptacles**

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

4 (a) through (b) No change

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

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

8 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
9 value of 1.4 followed by passing a water-tightness test to be considered satisfactory. To determine the vacuum at a 1.0 safety
10 factor, divide the required total vacuum values by 1.4. There shall be no distortion of the access hatch perimeters at the full
11 vacuum load and the access hatch must be able to be removed and reinstalled at the conclusion of the test.

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

14 4. Each manufacturer of fiberglass or polyethylene receptacles approved prior to November 26, 2006, shall apply for re-
15 approval of each receptacle not later than [INSERT SPECIFIC DATE]120 days after the effective date of this rule. Re-
16 approval requests shall be submitted to the department in accordance with the requirements for receptacle design approval in
17 64E-6.013(3). Receptacles shall be proof tested to show compliance with current standards. If the data from previous proof
18 testing shows compliance with the current standards, those data may be used in lieu of additional proof testing. Receptacles
19 not re-approved shall not be installed [INSERT SPECIFIC DATE]more than 6 months following the effective date of this rule.

20 (d) through (f) No change

21 (2) through (12) No change

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23 Specific Authority 381.0011(4),(13), 381.0065(3)(a), FS. Law Implemented 381.0065, FS. History—New 12-22-82,
24 Amended 2-5-85, Formerly 10D-6.55, Amended 3-17-92, 1-3-95, Formerly 10D-6.055, Amended 11-19-97, 2-3-98, 3-22-00,
25 4-21-02, 05-24-04, 11-26-06, .

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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

1 Issue 19-12 formerly 07-23: Treatment Standard Definitions for Performance Based Treatment Systems.

- 2
- 3 • The proposal replaces treatment standards for 7-day and 30-day averages with a percent removal
- 4 performance standard. 7-day and 30-day averages are not meaningful in current practice. Percent
- 5 removal allows some consideration of variability in influent concentrations.
- 6 • The standards are reformatted in a table for ease of reading.
- 7 • Baseline standards are provided for all pollutants. Domestic sewage strength and septic tank effluent
- 8 standards are now consistent with 64E-6.002(15)(c) (domestic sewage strength).
- 9 • ATU standards are defined to clarify PBTS standards in locations where ATUs are required.
- 10 • Florida Keys standards are amended by grab sample and percent removal standards
- 11 • Advanced secondary treatment grab sample standards for nitrogen is loosened to make a distinction
- 12 from Florida Keys standard.
- 13 • Effluent is defined and treatment standards are adjusted for soil-based treatment.
- 14 • Disposal and treatment component are defined
- 15
- 16

17 **64E-6.025 Definitions**

18 Due to extensive revision, strike entire section and add the following:

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

20 (1) Bottom infiltrative surface - the vertical projection of the bottom surface of the drainfield that is no lower in

21 elevation than 30 inches below grade.

22 (2) Composite sample –a defined mixture of grab samples of wastewater or effluent taken in proportion to either

23 time or flow, to minimize the effect of the variability of the individual sample.

24 (3) Disposal component – arrangement of equipment and/or materials that distributes effluent within a

25 drainfield

26 (4) Effluent – treated sewage at the point of discharge to the drainfield or disposal system. Where the site

27 specific application proposes to use soil as component of the treatment system, effluent refers to the mixture of soil

28 water, effluent and shallow groundwater recovered from the monitoring points and treatment concentration

29 standards shall be decreased by 50% for cBOD₅, TSS, TN, and TP, and by 90% for fecal coliform, and percent

30 removal standards of table IX shall be correspondingly adjusted. For systems designed to meet the standards of

31 64E-6.017(4), effluent refers to the recovered water product from a sampling point following the final design

32 treatment step.

33 (5) Failure - in addition to 64E-6.002(23), exceedance by an individual sample of the applicable performance

34 standards, unless the maintenance entity performs and documents maintenance, and a second individual sample is

35 taken within 30 days of the first individual sample and meets the applicable individual performance standard.

36 (6) Grab sample - a sample which is taken from wastewater or effluent over a period of time not to exceed

37 fifteen minutes.

38 (7) Effective drainfield depth - the vertical distance from the bottom of the drainfield to the invert of the

39 distribution pipe.

40 (8) Innovative System – as defined by s. 381.0065(2)(g), F.S.

41 (9) Performance-based treatment system - a specialized onsite sewage treatment and disposal system designed

42 by a professional engineer with a background in wastewater engineering, licensed in the state of Florida, using

43 appropriate application of sound engineering principles to achieve specified levels of CBOD₅ (carbonaceous

44 biochemical oxygen demand), TSS (total suspended solids), TN (total nitrogen), TP (total phosphorus), and fecal

45 coliform found in domestic sewage waste, to a specific and measurable established performance standard. This term

46 also includes innovative systems.

47 (10) Performance-based treatment system maintenance entity - any person or business entity which has obtained

48 an annual written permit issued on form DH4013 from the DOH county health department in the county where the

49 maintenance entity is located and has been authorized to perform maintenance by the design engineer or

50 manufacturer of all treatment components used in the performance based treatment system and provides operation

51 and maintenance services associated with that performance based treatment system.

52 (11) Sidewall infiltrative surfaces - the horizontal projection of the drainfield measured from the invert of the

53 drainfield distribution pipe to the bottom infiltrative surface, or to 30 inches below finished grade, whichever is less.

54 (12) Total drainfield depth - the vertical distance from the bottom of the drainfield to the top of the drainfield.

55

56 (13) Treatment component - any arrangement of equipment and/or material that treats sewage in preparation for
57 further treatment and/or disposal. Treatment components may incorporate a disposal component.

58 (14) Treatment performance standards -

59 (a) Performance standards for effluent from performance-based treatment systems consist of three criteria:

60 1. Annual average concentration is the arithmetic mean of the results of all effluent samples taken within the
61 previous 365 days, expressed as a concentration.

62 2. Individual sample - result of analysis of one effluent sample, whether grab sample or composite sample,
63 expressed as a concentration.

64 3. Percent removal – annual average removal of a pollutant from the discharge of the treatment system
65 compared to the influent from the establishment. The influent stems from a septic tank or similar treatment
66 compartment; percent removal= (1- effluent concentration/influent concentration)*100

67 (b) Treatment performance standards are established for five pollutants.

68 1. Carbonaceous biochemical oxygen demand after five days (CBOD₅), measured in mg oxygen per liter

69 2. Total suspended solids (TSS), measured in mg per liter

70 3. Total nitrogen (TN), the sum of nitrite, nitrate and total Kjeldahl nitrogen, measured in mg nitrogen per liter

71 4. Total phosphorus (TP), measured in mg phosphorus per liter

72 5. Fecal coliform, measured in colony forming units (cfu) or most probable number (MPN) per 100 mL

73 (c) Numerical values for several levels of common treatment performance standards for the five pollutants are
74 defined in Table IX. Compliance during monitoring shall consist of meeting at least one of the three criteria. To
75 achieve compliance the values determined from samples of the system shall be equal to or better than the treatment
76 standards listed. For concentrations, better means lower, for percent removal, better means higher.

77 (15) Wastewater strength - the sum of the CBOD₅ and TSS concentrations.

78
79 PUT TABLE IX HERE

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82 Rulemaking Authority 381.0011(4), (13), 381.0065(3)(a), FS. Law Implemented 381.0065, 381.0067, 386.041,
83 FS. History—New 2-3-98, Amended 3-22-00, 06-18-03, 11-26-06, .

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TABLE IX
PERFORMANCE STANDARDS

POLLUTANT	Domestic Sewage Waste Range	Baseline Septic Tank Effluent Standards	Baseline Treatment Standard 24" below bottom infiltrative surface	Aerobic Treatment Unit Effluent Standards	Secondary Treatment Effluent Standards	Advanced Secondary Treatment Effluent Standards	Florida Keys Nutrient Reduction Effluent Standards	Advanced Wastewater Treatment Effluent Standards
CBOD₅								
-annual average	300 mg/L	150 mg/L	10 mg/l	20 mg/l	20 mg/l	10 mg/l	10 mg/l	5 mg/l
-individual sample	500 mg/L	300 mg/L	20 mg/	60 mg/l	60 mg/l	30 mg/l	30 mg/	10 mg/l
-percent removal	not applicable	not applicable	95	90	90	95	95	97
TSS								
-annual average	200 mg/L	100 mg/L	30 mg/l	20 mg/l	20 mg/l	10 mg/l	10 mg/l	5 mg/l
-individual sample	500 mg/L	200 mg/L	100 mg/	60 mg/l	60 mg/l	30 mg/l	30 mg/l	10 mg/l
-percent removal	not applicable	not applicable	85	90	90	95	95	97
TN								
-annual average	100 mg/L	100 mg/L	70 mg/L	no requirement	no requirement	20 mg/l	10 mg/l	3 mg/l
-individual sample	150 mg/L	150 mg/L	100 mg/L			50 mg/l	40 mg/l	6 mg/l
-percent removal	not applicable	not applicable	30			50	62	90
TP								
-annual average	18 mg/L	18 mg/L	12 mg/L	no requirement	no requirement	10 mg/l	1 mg/l	1 mg/l
-individual sample	25 mg/L	25 mg/L	18 mg/L			20 mg/l	4 mg/l	2 mg/l
-percent removal	not applicable	not applicable	30			25	50	90
Fecal coliform								
-annual average	2.0E+6 cfu/ 100 ml	2.0E+6 cfu/ 100 ml	20 cfu/ 100 ml	no requirement	200 cfu/ 100 ml	200 cfu/ 100 ml	no requirement	1 cfu/ 100 ml
-individual sample	2.0E+7 cfu/ 100 ml	2.0E+7 cfu/ 100 ml	200 cfu/ 100 ml		800 cfu/ 100 ml	800 cfu/ 100 ml		25 cfu/ 100 ml
-percent removal	not applicable	not applicable	99.999		99.99	99.99		99.9999

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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.

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(1) Advanced 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 10 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 90 consecutive days (quarterly) shall not exceed 12.5 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 15 mg/l.
4. Maximum permissible concentrations of CBOD₅ 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 sample.
3. No more than 10% of the samples collected during the 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 colonies per 100 ml of sample.

(2) Advanced Wastewater 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 5 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 90 consecutive days (quarterly) shall not exceed 6.25 mg/l.

153 3. The arithmetic mean of the CBOD₅ or TSS values for a minimum of four effluent samples, each
154 collected (whether grab or composite technique is used) on a separate day of seven consecutive days shall
155 not exceed 7.5 mg/l.
156 4. Maximum permissible concentrations of CBOD₅ or TSS values in any effluent grab sample at any time
157 shall not exceed 10 mg/l.
158 (b) TN
159 1. The arithmetic mean of the TN values for the effluent samples collected (whether grab or composite
160 technique is used) during an annual period shall not exceed 3 mg/l.
161 2. The arithmetic mean of the TN values for a minimum of four effluent samples, each collected (whether
162 grab or composite technique is used) on a separate day during a period of 90 consecutive days (quarterly)
163 shall not exceed 3.75 mg/l.
164 3. The arithmetic mean of the TN values for a minimum of four effluent samples, each collected (whether
165 grab or composite technique is used) on a separate day of seven consecutive days shall not exceed 4.5 mg/l.
166 4. Maximum permissible concentrations of TN values in any effluent grab sample at any time shall not
167 exceed 6 mg/l.
168 (c) TP
169 1. The arithmetic mean of the TP values for the effluent samples collected (whether grab or composite
170 technique is used) during an annual period shall not exceed 1 mg/l.
171 2. The arithmetic mean of the TP values for a minimum of four effluent samples, each collected (whether
172 grab or composite technique is used) on a separate day during a period of 90 consecutive days (quarterly)
173 shall not exceed 1.25 mg/l.
174 3. The arithmetic mean of the TP values for a minimum of four effluent samples, each collected (whether
175 grab or composite technique is used) on a separate day of seven consecutive days shall not exceed 1.5 mg/l.
176 4. Maximum permissible concentrations of TP values in any effluent grab sample at any time shall not
177 exceed 2.0 mg/l.
178 (d) Fecal coliform—system operation shall result in an effluent in which fecal coliform colonies (per 100
179 ml of sample) are below detectable limits. Where chlorine is used for disinfection, the design shall include
180 provisions for rapid and uniform mixing; and the total chlorine residual of at least 1.0 mg/l shall be
181 maintained at all times. The minimum acceptable contact time shall be 15 minutes at the peak hourly flow.
182 To determine compliance of a system, the following operational criteria (using either MF or equivalent
183 MPN methods) shall be applicable
184 1. Fecal coliform shall be below the detection limits for 75% of the samples collected over a 30 day period.
185 2. Any one sample shall not exceed 25 fecal coliform colonies per 100 ml of sample.
186 3. Any one sample shall not exceed 5.0 mg/l of TSS at a point before application of the disinfectant.
187 (3) Baseline system standards—A wastewater system with the following operational criteria:
188 (a) Effluent concentrations from the treatment tank:
189 1. CBOD₅ < 240 mg/l
190 2. TSS < 176 mg/l
191 3. TN < 45 mg/l
192 4. TP < 10 mg/l
193 (b) Percolate concentrations from the baseline system prior to discharge to groundwater:
194 1. CBOD₅ < 5 mg/l
195 2. TSS < 5 mg/l
196 3. TN < 25 mg/l
197 4. TP < 5 mg/l
198 (4) Bottom infiltrative surface—the vertical projection of the bottom surface of the drainfield that is no
199 lower in elevation than 30 inches below grade.
200 (5) Composite sample—means a combination of individual samples of wastewater or effluent taken at
201 selected intervals, generally hourly or less for some specified period, to minimize the effect of the
202 variability of the individual sample.
203 (6) Grab sample—a sample which is taken from a wastestream without regard to the flow in the
204 wastestream and over a period of time not to exceed fifteen minutes.
205 (7) Effective drainfield depth—the vertical distance from the bottom of the drainfield to the invert of the
206 distribution pipe.
207 (8) Florida Keys nutrient reduction treatment—a treatment which will provide a recovered water product
208 that contains not more, on a permitted annual average basis, than the following concentrations from a

209 sampling point located following the final design treatment step of the onsite sewage treatment and disposal
210 system:

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

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

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

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

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

- 227 (a) CBOD₅ and TSS
- 228 1. The arithmetic mean of the CBOD₅ or TSS values for the effluent samples collected (whether grab or
229 composite technique is used) during an annual period shall not exceed 20 mg/l.
- 230 2. The arithmetic mean of the CBOD₅ or TSS values for a minimum of four effluent samples, each
231 collected (whether grab or composite technique is used) on a separate day during a period of 30 consecutive
232 days (monthly) shall not exceed 30 mg/l.
- 233 3. The arithmetic mean of the CBOD₅ or TSS values for a minimum of four effluent samples, each
234 collected (whether grab or composite technique is used) on a separate day of seven consecutive days shall
235 not exceed 45 mg/l.
- 236 4. Maximum permissible concentrations of CBOD₅ or TSS values in any effluent grab sample at any time
237 shall not exceed 60 mg/l.
- 238 (b) Fecal coliform—system operation shall result in not more than 200 fecal coliform colonies per 100 ml
239 of effluent sample. Where chlorine is used for disinfection, the design shall include provisions for rapid and
240 uniform mixing and a total chlorine residual of at least 0.5 mg/l shall be maintained after at least 15
241 minutes contact time at the peak hourly flow. To determine compliance of a system, the following
242 operational criteria (using either MF or equivalent MPN methods) are applicable.
- 243 1. The arithmetic mean of the fecal coliform colonies collected during the annual period shall not exceed
244 200 per 100 ml of effluent.
- 245 2. The geometric mean of the fecal coliform colonies for a minimum of 10 samples of effluent, each
246 collected on a separate day, shall not exceed 200 per 100 ml of sample.
- 247 3. No more than 10% of the samples collected during a period of 30 consecutive days shall exceed 400
248 fecal coliform colonies per 100 ml of sample.
- 249 4. Any one sample shall not exceed 800 fecal coliform values per 100 ml of sample.

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

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

255 (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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Ready for Inclusion in Rule: YES