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This is a listing of issues being considered for inclusion into chapter 64E-6, FAC. Some issues are on the TRAP agenda, some are tabled by TRAP, some are approved by TRAP and awaiting future rulemaking. Check the TRAP Agenda to see which issues are to be included in an upcoming TRAP meeting. The issue sheets are generally accurate but are general summaries and may contain errors and omissions as the issue language is edited.

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

10-11--Issue Status--PBTS design standards.txt

Issue Number: 10-11  
Subject: PBTS design standards  
Date New: 6/29/2010  
Date Initially Heard by TRAP: 7/15/2010  
Date Tabled by TRAP: 10/11/2011  
Date Initially Approved by TRAP: 7/15/2010  
Date Heard by Variance Committee: 9/2/2010  
Date of TRAP Final Recommendation:  
TRAP Final Recommendation:  
Ready for Inclusion in Rule: NO

Issue Development Notes:

7/15/10 TRAP passed to Variance Committee. Eb will discuss with Daman regarding 1,000,000 colony forming units on line 63.  
9/2/10 Variance Comments: REI-ok; ENG-ok; CHD-ok, SHO-Fix 2 typos (done); STI-No problem; HBI-no comment  
9/10/10 Incorporated changes from Eb and Damann's meeting.  
9/23/10 On agenda but not discussed at TRAP. Did not complete agenda.  
10/19/10 Eb incorporated changes to data requirements.  
11/22/10 Incorporated Eb's updates that adopts independent testing language from issue 08-09. Made references to several requirements that occur six months following the effective date. Renumbered to reflect issue 08-09 renumbering.  
12/2/2010 TRAP TABLED for conference call with industry. Also, change (12) to require that "9 months following the effective date" and "reclassifications shall use field data (10)(d&e)  
9/26/2011 Combined with Issue 08-09, added NSF 245 language  
10/11/2011 TRAP tables for meeting with manufacturers.  
10/17/2011 Eberhard had meeting with manufacturers.  
11/18/2011 Eberhard incorporated comments from his meeting with manufacturers.

1 Issue 08-09/10-11 Innovative System Permitting and PBTS Design Standards

2 This document combines the language from both issues.

3 08-09 Summary:

- 4
- 5 • Amends section 64E-6.0295 to provide details on innovative systems. Currently, there
  - 6 are very few details on how to permit innovative systems.
  - 7 • Puts all innovative system language in one location. Currently, they are scattered in
  - 8 several sections, frequently without reference to each other.
  - 9 • Establishes two categories of innovative system permits: demonstration permit (up to 12
  - 10 systems for treatment and 70 systems for disposal) and development permit (one system), with
  - 11 different data and installation requirements and fees. Development systems can only be
  - 12 installed where a conventional system can be installed
  - 13 • This staged approach allows a pathway for systems that have not had NSF testing or
  - 14 something similar via the development permit to install one system and monitor intensively.
  - 15 Systems that have NSF-testing or something similar can go directly to the demonstration permit
  - 16 • Establishes minimum standards for monitoring protocol. Past practices have varied
  - 17 widely, it appears useful to define minimum standards
  - 18 • Expands documentation required for an innovative system application. Exact
  - 19 specifications are needed. Several items that are useful for a review, such as maintenance
  - 20 manuals and design information are currently only mentioned in the construction permit. The
  - 21 forms DH3143 and DH3144 only indirectly mention some of the items.
  - 22 • Clarifies coordination between applicant, county health department and Onsite Sewage
  - 23 Program Central Office .

24 10-11 Summary:

25 Issue: Provide a common way to assess treatment performance data

- 26
- 27 • Formalizes that the Bureau will have a data compilation on treatment performance
  - 28 • Initiates a reclassification process by six months after this rule becomes effective, so that
  - 29 data requirements are consistent between treatment systems, and establishes data
  - 30 requirements for this reclassification.
  - 31 • Incorporates HSES 10-01 for review of performance claims, with the additional provision
  - 32 that for nitrogen reduction, percent reduction is the parameter to be looked at. Test center data
  - 33 to support performance claims have to include at least ten weeks of data and have an expiration
- time (15 years).

• Soil treatment effectiveness will be addressed after the final report from phase II of the nitrogen study.

Note also the following definitions in 64E-6.025 in issue 07-23

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

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

64E-6.004 Application for System Construction Permit

(1) through (7) No change

(8) Innovative Systems for residential and non-residential establishments shall be permitted in accordance with Part IV of this Chapter. ~~or new product approval for onsite sewage treatment and disposal systems shall be initiated by submittal of an application for permit using Form DH 3143, Jan. 94, hereby incorporated by reference. DOH county health departments are authorized to issue installation permits upon receipt of the temporary permit. Form DH 3144, Jan 94, and Form DH 3145, Jan 94, hereby incorporated by reference, shall be used to record information that describes notification requirements between the temporary permit applicant, the DOH county health department, and the State Health Office. These forms are to be processed by the DOH county health departments.~~

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, \_\_\_\_.

64E-6.026 Applications for ~~Innovative System Permits and~~ System Construction Permits.

~~(1) Applications for innovative system permits—Applications for innovative system permits shall be made using form DH 3143. The application and all supporting information shall be signed, dated and sealed by an engineer, licensed in the State of Florida. Except as provided for in subsection 64E-6.028(3), F.A.C., alternative drainfield materials and designs shall not be~~

68 approved which would result in a reduction in drainfield size using the mineral aggregate  
 69 drainfield system as described in Rule 64E-6.014, F.A.C., and the total surface area of soil at  
 70 the bottom of the drainfield as the criteria for drainfield sizing comparisons. Applications shall  
 71 include:

- 72 (a) ~~A monitoring protocol designed to validate that the system will perform to the engineer's~~  
 73 ~~design specifications.~~
- 74 (b) ~~Compelling evidence that the system will function properly and reliably to meet the~~  
 75 ~~requirements of this chapter and Section 381.0065, F.S. Such compelling evidence shall include~~  
 76 ~~one or more of the following from a third-party testing organization approved through the NSF~~  
 77 ~~Environmental Technology Verification Program:~~
- 78 1. ~~Side stream testing, where effluent is discharged into a system regulated pursuant to~~  
 79 ~~Chapter 403, F.S.~~
- 80 2. ~~Testing of systems in other states with similar soils and climates.~~
- 81 3. ~~Laboratory testing.~~

82 (2) through (3) renumber as (1) through (2) No change  
 83 *Rulemaking Authority 381.0011(4), (13), 381.0065(3)(a) FS. Law Implemented 381.0065,*  
 84 *381.0067, Part I 386 FS. History—New 2-3-98, Amended 6-18-03, 11-26-06, 4-28-10.*

85  
 86 64E-6.027 Permits.

87 (1) Innovative System Permits shall be issued in accordance with 64E-6.0295, FAC.  
 88 Components approved as meeting the requirements of 64E-6.012(1) certified by an ANSI-  
 89 accredited third-party certifying organization, as complying with NSF Standards 40 or 245, shall  
 90 not be required to obtain or to be tested under an innovative system permit provided the  
 91 proposed performance is no better than the average performance reported in the applicable  
 92 evaluation report. ~~—An application for system construction permit for an innovative system~~  
 93 ~~cannot be reviewed until the innovative system permit has been approved specifying the~~  
 94 ~~number of systems and time limits. The department's decision to grant or deny the innovative~~  
 95 ~~system permit shall be based on the presence or absence of compelling evidence that the~~  
 96 ~~innovative systems will function properly and reliably to meet the requirements of this chapter~~  
 97 ~~and Section 381.0065, F.S.~~

98 (2) through (7) No change

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99  
100 **64E-6.0295 Innovative Systems ~~Reclassification~~.**  
101

102 (1) No construction permit for an innovative system shall be issued until the owners of a  
103 proprietary technology or their authorized agent, or a person desiring the permitting of a public  
104 domain technology makes application for and receives either an innovative system  
105 demonstration permit or an innovative system development permit from the ~~Bureau of Onsite~~  
106 ~~Sewage Programs~~ Onsite Sewage Program Central Office .

107 (2) Innovative system demonstration permits shall allow the installation of no less than  
108 twelve innovative systems for a limited period of time when there is compelling evidence that the  
109 system will function properly and reliably to meet the requirements of this chapter and section  
110 381.0065, FS. Such compelling evidence shall include results on performance and reliability  
111 from successful testing meeting all of the following conditions:

112 (a) Full-scale testing with an average measured daily sewage flow of at least 200 gallons  
113 per day.

114 (b) The results of tests include all influent and performance conditions, from observations in  
115 at least eight separate weeks over at least five months.

116 (c) The testing of the system met all of the following criteria:

117 1. The testing organization is independent of the developer, the applicant, the owner of a  
118 proprietary technology or their authorized agent, ~~and the engineer sealing the application for the~~  
119 ~~innovative system application or any of the site specific construction permit applications, and~~  
120 ~~maintenance entities maintaining the installed systems.~~ Independence shall mean that there  
121 are no employee-employer or subsidiary relationships, or other relationships that would impact  
122 on the independence of the testing organization.

123 2. The testing organization has knowledge and experience in conducting such testing.  
124 Entities that perform certification testing for organizations accredited to ISO guide 65 (1996)  
125 [REFERENCE], testing during EPA's national demonstration projects, testing by government  
126 agencies and contractors for government agencies that regulate onsite sewage components or  
127 wastewater treatment shall be deemed to comply. Other entities, such as department-  
128 accredited analytical laboratories, faculty or staff of an accredited college or university, shall  
129 provide documentation demonstrating staff competence, knowledge and experience in  
130 environmental testing.

131 3. The testing protocol and its implementation are documented and provide standardized  
132 procedures and standards to show ~~how that the objectives of representativeness, such as~~  
completeness, accuracy and precision are met. All test results shall be reported. Testing

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133 according to ANSI-standards or certification standards required for approval in other states or  
134 countries, or during EPA's national demonstration projects shall be deemed to fulfill this  
135 criterion. Documentation for other testing shall include chain-of-custody procedures and  
136 National Environmental Laboratory Accreditation Program (NELAP)-accreditation or applicable  
137 equivalent for analytical laboratories providing data, acceptable to the department.

138 (3) Innovative system development permits shall allow the installation of a single innovative  
139 system for a limited period of time when the system has not been successfully tested in  
140 accordance with paragraphs (2)(a) through (c) above but where testing has been performed that  
141 includes at least five monitoring events over at least three months and meeting one or more of  
142 the following conditions:

143 (a) Testing in Florida where the innovative system is part of a treatment system regulated  
144 and monitored pursuant to Chapter 403, FS, and the flow is within a factor of ten of the  
145 estimated sewage flow for which the innovative system is proposed.

146 (b) Testing in Florida as part of department-supervised research.

147 (c) Testing in Florida of systems permitted and installed as a non-innovative onsite sewage  
148 treatment system that demonstrate performance at a higher standard than that for which the  
149 system was originally permitted.

150 (d) Testing in Florida of the innovative system installed and permitted as part of the building  
151 plumbing and not part of the onsite sewage treatment system.

152 (e) Testing in Florida of the innovative system in an experimental setting where the effluent  
153 is discharged to a collection or transmission system regulated pursuant to Chapter 403, FS, and  
154 the experimental flow is within a factor of five of the estimated sewage flow for which the  
155 innovative system is proposed.

156 (f) Testing in Florida that demonstrates the performance and reliability of the component  
157 without involving sewage.

158 (g) Full-scale testing with an average measured daily sewage flow of at least 200 gallons  
159 per day.

160 (4) Application for either an innovative system development or demonstration permit shall be  
161 made to the ~~Bureau of Onsite Sewage Programs~~ Onsite Sewage Program Central -Office  
162 accompanied by all required exhibits and fees and shall include the following:

163 (a) Form DH 3143 [REFERENCE] herein incorporated by reference, signed, dated and  
164 sealed by an engineer, licensed in the State of Florida

165 (b) Results from testing on performance and reliability. For treatment components, reported  
166 test results shall include average, median, 75<sup>th</sup> percentile and 90<sup>th</sup> percentile concentrations.

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For disposal components, reported test results shall include loading, ponding and surfacing observations. For innovative system demonstration permit applications, the results shall be reported by the independent organization performing the testing. For innovative system development permits, the results shall either be reported by the independent organization performing the testing or have been reviewed and certified by an engineer licensed in Florida.

(c) An affidavit by the applicant certifying that the technology submitted for approval is the same as the technology for which testing data are provided.

(d) A description of the system, including specification of materials used in construction, and its proposed use. The applicant needs to address any differences between the previous test conditions and anticipated conditions in Florida. Such differences may include but are not limited to climate, soils, sewage characteristics, and sewage flow.

(e) A design and installation manual, including system design criteria, design performance levels, and transferability of obtained results to different flows and conditions. The manual shall address applicability of the technology to estimated sewage flows ranging from 200 to 5000 gallons per day and to different wastewater strengths and characteristics.

(f) An operation and maintenance manual, including a replacement part list, for use by a maintenance entity and a system owner, including instructions on how to detect, maintain, and repair a malfunctioning system. The applicant shall address in the manual or a separate document operating extremes such as flooding, loss of power, over-use and under-use, peak use, high organic or grease loading, and as well as operation of the system receiving household cleaners.

(g) Inspection instructions for construction and operating permit inspections by the county health department.

(h) Recommended qualifications for maintenance entities.

(i) A monitoring protocol designed to validate the performance and reliability of the innovative system in Florida. The monitoring protocol shall meet 64E-6.0295(2)(c)3 and the following criteria:

1. For innovative system demonstration permits, monitoring for treatment component effectiveness shall extend over a minimum of one year after installation of the first system and with data from a minimum of 48 monitoring events gathered from at least twelve systems. The median of multiple site visits during one 30-day period shall count as one monitoring event. Each site installation may provide not more than a quarter of all monitoring events. Monitoring for disposal components shall have the objective to provide an estimate for the rates at which onsite systems with this component will experience surfacing and ponding to the effective



201 drainfield depth, or similar measures over the first two years after installation. Up to 70% of the  
202 monitoring events may be from a non-independent test organization meeting subparagraph  
203 (2)(c)2. provided:  
204 a. at least 30% of the monitoring events are from an independent test organization meeting  
205 subparagraphs (2)(c)1. and 2.; and  
206 b. if the median of the dataset from either the independent test organization or the non-  
207 independent test organization is more than 10% higher or lower than the median of all of the  
208 test data, only the dataset showing the lesser performance is used to determine the overall  
209 observation of system performance.  
210 2. For innovative system development permits, monitoring for treatment effectiveness,  
211 surfacing and ponding as applicable shall be designed to provide compelling evidence required  
212 in subsection (2) above.  
213 (i) Information on the proposed testing organization, showing whether it meets the  
214 requirements of subparagraphs (2)(c)1. and 2. above.  
215 (k) A five-year warranty by the applicant to the owner of an installed innovative system for  
216 engineering services, contractor equipment, material and labor necessary to secure permits and  
217 modify the system or repair the system with a department-approved non-innovative system in  
218 case of failure that is not due to owner-non-compliance with operating and maintenance  
219 instructions.  
220 (l) Procedures to address system malfunction and replacement, premature termination of the  
221 monitoring protocol and innovative system evaluation, and criteria for removal of the system at  
222 the end of the evaluation or warranty period.  
223 (m) For innovative system demonstration permits, the number of systems proposed to be  
224 installed, the criteria for site selection, and, if applicable, the procedures for randomly selecting  
225 and monitoring representative systems already installed under lesser standards.  
226 (n) The required fee per section 64E-6.030, F.A.C.  
227 (5) Innovative System Demonstration or Development Permit – An application for system  
228 construction permit for an innovative system cannot be reviewed until either innovative system  
229 demonstration or development permit has been approved specifying the number of systems and  
230 time limits and other permit conditions. For innovative system demonstration permits, the  
231 maximum number of systems initially allowed shall be twelve for treatment components and  
232 seventy for disposal components. For innovative system development permits, the maximum  
233 number of systems allowed shall be one. The department's decision to grant or deny the  
234 innovative system permit shall be based on the completeness and accuracy of the application, a

reasonable likelihood of meeting the objectives of the monitoring protocol and the presence or absence of compelling evidence that the innovative systems will function properly and reliably to meet the requirements of this chapter and Section 381.0065, F.S. An innovative system permit shall expire five years after having been issued. The applicant or successor can request an extension for a second five year period at least 90 days before the expiration date. After approval, the applicant shall provide annual reports to the ~~Bureau of Onsite Sewage Programs~~ Onsite Sewage Program Central -Office on the progress of the innovative system evaluation, including a tabular summary of installations and monitoring results.

(6) After the innovative system demonstration permit or the innovative system development permit has been issued, DOH county health departments are authorized to issue system construction permits for individual innovative systems when the following conditions are met:

(a) The county health department has received a complete application for a performance-based treatment system construction permit and a copy of the innovative system demonstration or development permit, has reviewed it in accordance with 64E-6.027, and has included the monitoring requirements in the operating permit conditions. The design and installation shall comply with the conditions of the innovative permit and the following additional criteria:

1. For a construction permit issued under an innovative system demonstration permit, the design engineer shall provide to the county health department, in addition to the construction application for the innovative system, a complete DH 4015 and a draft permit DH 4016 for a non-innovative system, meeting the requirements of this chapter, that will replace the innovative system should it fail.

2. For a construction permit issued under an innovative system development permit:

a. The innovative system shall be installed only in a location where a baseline treatment system in accordance with part I of this chapter is allowed.

b. For innovative systems serving an establishment there shall be an existing and functioning onsite sewage treatment and disposal system permitted under chapter 381.0065, FS, that is available for immediate use.

(b) The county health department has received completed form DH 3144, [REFERENCE].

(c) The county health department has filed completed form DH 3145 [REFERENCE] with the ~~Bureau of Onsite Sewage Programs~~ Onsite Sewage Program Central Office .

(d) The ~~Bureau of Onsite Sewage Programs~~ Onsite Sewage Program Central -Office has reviewed and approved form DH 3145.

(7) Following successful testing of the single system installed under the innovative system development permit and subsequent construction permit, the owners of a proprietary technology

or their authorized agent, or a person desiring the permitting of a public domain technology may apply for an innovative system demonstration permit per subsection (3) above.

~~(8) (4)~~ Following the installation and monitoring of the number of systems allowed by the innovative system demonstration permit, the owners of a proprietary technology or their authorized agent, or a person desiring the permitting of a public domain technology applicant may request reclassification of their innovative system by the ~~Bureau of Onsite Sewage Programs~~ Onsite Sewage Program Central Office. Requests for reclassification as an alternative system component and design shall be made in accordance with subsection 64E-6.009(7), F.A.C. Requests for reclassification as a performance-based treatment system shall include the following:

- (a) Results and analysis of monitoring of the systems installed.
- (b) Observations of system performance.
- (c) Maintenance, repairs or modifications performed on any systems.
- (d) Comments from the system operators or users.
- (e) Comments from the design engineers who designed the individual system designs.
- (f) Comments from the county health departments in the counties where the systems were installed.
- (g) Specification of the proposed classification as performance-based.
- (h) Rationale for the proposed type of classification desired.
- (i) Proposed monitoring protocol.
- (j) A sample manual addressing the siting, design, installation, inspection, operation, maintenance and abandonment procedures.

~~(9) (2)~~ The ~~Bureau of Onsite Sewage Programs~~ Onsite Sewage Program Central Office shall process the reclassification request in accordance with Chapter 120, F.S. The department shall approve the request only if the department is satisfied that the system will reliably perform to the standards desired under normal operating conditions as demonstrated by the information provided.

~~(10)~~ The Onsite Sewage Program Central Office shall compile data obtained for treatment components during innovative system testing and other testing and publish characteristics of performance. These characteristics shall include:

- ~~(a)~~ System description.
- ~~(b)~~ Pollutant monitored.
- ~~(c)~~ Average independent evaluation results of full-scale systems where influent and effluent conditions are monitored over a period of at least two months and observations of influent and

303 effluent in at least six separate weeks are available. The characteristics will be flow, influent  
304 concentration, effluent concentration, and fraction removed. Where multiple such tests are  
305 available, the simple average of the tests shall be reported, unless hydraulic residence times  
306 varied by a factor of two or more.

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307 (d) Testing data documented by qualified independent testing organizations meeting the  
308 requirements of subparagraphs (2)(c)1., 2., and 3., [TRAP ISSUE 08-09] collected within the  
309 previous 15 years from permitted system installations in Florida and characterized by average,  
310 median, 75<sup>th</sup> and 90<sup>th</sup> percentile. Where both influent and effluent were measured and appear  
311 valid at the same system at the same event, a removal effectiveness shall be estimated. When  
312 influent was not measured, R- removal effectiveness for total nitrogen may be estimated  
313 assuming an influent TN concentration of 55 mg/L.

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314 (e) Other testing data from permitted system installations in Florida within the previous 15  
315 years as electronically available, characterized by average, median, 75<sup>th</sup> and 90<sup>th</sup> percentile.  
316 Where both influent and effluent were measured and appear valid at the same system at the  
317 same event, a removal effectiveness shall be estimated. When influent was not measured, R-  
318 removal effectiveness for total nitrogen may be estimated assuming an influent TN  
319 concentration of 55 mg/L. The person who makes such data available shall document that they  
320 comply with the requirements of 64E-6.0295(2)(c)3.

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321 (11) Reclassification of innovative and performance-based treatment systems currently in  
322 use shall be initiated no later than [AT LEAST SIX MONTHS FOLLOWING THE EFFECTIVE  
323 DATE], and the data reported according to subsection (10) shall be screened, according to the  
324 following criteria.

325 (a) In order to be considered, data for (10)(c) shall have been gathered over a period of at  
326 least five months with influent and effluent data points available in at least ten separate weeks  
327 within the previous 15 years.

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328 (b) Innovative and performance-based treatment systems that have at least 48 data points  
329 combined in (10)(d) and (e) shall be eligible for reclassification as non-innovative performance  
330 based treatment systems, provided the data meet the following criteria:

331 1. At least twelve system installations were evaluated for treatment components.  
332 2. The median of multiple data during any one 30-day period shall count as one monitoring  
333 event.

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334 43. At least 30% of the required mainline data points combined from (10)(d) and (e) are from  
335 (10)(d)

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336 34. No one permitted system installation shall contribute more than a quarter of all data

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337 ~~4. At least 30% of the remaining data combined from (10)(d) and (e) are from (10)(d)~~  
 338  
 339 5. If the median of the dataset from either (10)(d) or (10)(e) is more than 10% higher or  
 340 lower than the median of all of the test data, only the dataset showing the poorer performance is  
 341 used in the overall observation of system performance.  
 342 Systems with data that do not meet these criteria have fewer data shall be considered  
 343 innovative, provided that there is an entity willing to provide the required information.  
 344 (c) Information required by subsection (1) is on file with the Onsite Sewage Program Central  
 345 Office.  
 346 (12) The following review standards shall apply in evaluating proposed performance of  
 347 treatment components:  
 348 (a) For cBOD5, TSS, average effluent concentrations of results from (10)(c), subject to  
 349 (11)(a), or from (11)(b)5.combined results of (10)(d) and (e), shall meet the average annual  
 350 treatment performance standard of Table IX proposed. Soil treatment effectiveness shall not be  
 351 considered in determining compliance with the provisions of 64E-6.028, F.A.C.  
 352 (b) For fecal coliform, effluent concentration from results from (10)(c), subject to (11)(a), or  
 353 from (11)(b)5.combined results of (10)(d) and (e)(10)(c), subject to (11), or from combined  
 354 results from (10)(d) and (e), shall meet the average annual treatment performance standard  
 355 proposed and the geometric mean shall meet the percent removal performance standard of  
 356 Table IX, 99.99 percent reduction for secondary and advanced secondary treatment standards  
 357 and 99.9999 percent reduction for advanced wastewater treatment standards. The design  
 358 engineer may consider Ssoil treatment effectiveness may be considered up to advanced  
 359 secondary treatment standards if the site-specific design includes monitoring to verify  
 360 performance, or if evaluated during innovative system testing.  
 361 (c) For total nitrogen, average percent removal effectiveness from results from (10)(c),  
 362 subject to (11)(a), or from (11)(b)5.combined results of (10)(d) and (e)(10)(c), subject to (11), or  
 363 from combined results from (10)(d) and (e), shall meet the average annual treatment percent  
 364 removal performance standard of the system of Table IX. For the purposes of this section, this  
 365 standard shall be 50% for advanced secondary, 62% for Florida Keys, and 90% for advanced  
 366 wastewater treatment standards. Soil treatment effectiveness shall not be considered, unless  
 367 evaluated during innovative system testing.  
 368 (d) For total phosphorus, the design engineer may consider systems treating all domestic  
 369 sewage or fractions of the graywater of an establishment in at least one treatment receptacle  
 370 may be deemed to comply with the average effluent concentrations for advanced secondary  
 treatment performance standards. For other systems, average effluent concentration from

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371 results from ~~(10)(c), subject to (11)(a), or (11)(b)5. combined results of (10)(d) and (e)~~ ~~(10)(c),~~  
 372 ~~subject to (11), or from combined results of (10)(d) and (e),~~ shall meet the average annual  
 373 treatment performance standard of Table IX proposed, or the design engineer may provide data  
 374 showing that the influent concentration meets the average annual treatment performance  
 375 standard proposed. Soil treatment effectiveness shall not be considered in determining  
 376 compliance with the provisions of 64E-6.028, F.A.C. nor for compliance with the provisions of  
 377 64E-6.018, F.A.C., unless evaluated during innovative system testing.

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378  
 379 Rulemaking Authority 381.0011(13), 381.006, 381.0065(3)(a) FS. Law Implemented 381.0065,  
 380 381.0067, 386.041 FS. History—New 6-18-03. Amended.

381  
 382 64E-6.030 Fees.

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

384 (a) Application and plan review for construction permit for new system. \$100

385 (b) Application and approval for existing system, if system inspection is not required. \$35

386 (c) Application and Existing System Evaluation. \$50

387 (d) Application for permitting of a new performance-based treatment system. \$125

388 (e) Site evaluation. \$115

389 (f) Site re-evaluation. \$50

390 (g) Permit or permit amendment for new system, modification or repair to system. \$55

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

392 (i) Initial system inspection. \$75

393 (j) System reinspection (stabilization, non-compliance or other inspection after the initial  
 394 inspection). \$50

395 (k) Application for system abandonment permit, includes permit issuance and inspection. \$50

396 (l) Annual operating permit industrial/manufacturing zoning or commercial sewage waste.

397 \$150

398 (m) Biennial operating permit for aerobic treatment unit or performance-based treatment  
 399 system. \$100

400 (n) Amendment to operating permit. \$50

401 (o) Tank Manufacturer's Inspection per annum. \$100

402 (p) Septage Disposal Service permit per annum. \$75

403 (q) Portable or Temporary Toilet Service permit per annum. \$75

404	(r) Additional charge per pumpout vehicle, septage disposal service or portable toilet	
405	service.	\$35
406	(s) Septage stabilization facility inspection fee per annum per facility.	\$150
407	(t) Septage disposal site evaluation fee per annum.	\$200
408	(u) Aerobic treatment unit maintenance entity permit per annum.	\$25
409	(v) Variance Application for a single family residence per each lot or	\$200
410	building site.	
411	(w) Variance Application for a multi-family or commercial building per	\$300
412	each building site.	
413	(x) Application for innovative <del>system</del> <del>product</del> approval.	<del>\$2500</del>
414	<u>1. technology development permit</u>	<u>\$500</u>
415	<u>2. technology demonstration permit</u>	<u>\$2500</u>
416	(2) The following fees are required to accompany applications for registration of individuals	
417	for septic tank contractor or master septic tank contractor or for a certificate of authorization for	
418	partnerships and corporations.	
419	(a) Application for registration including examination.	\$75
420	(b) Initial registration.	\$100
421	(c) Renewal of registration.	\$100
422	(d) Certificate of authorization each two-year period.	\$250
423	<i>Rulemaking Authority 154.06(1), 381.0066, 489.557(1) FS. Law Implemented 381.0065,</i>	
424	<i>381.0066, 489.557 FS. History—New 2-3-98, Amended 3-22-00, 4-21-02, 5-24-04, 11-26-06, 9-</i>	
425	<i>24-07,_____.</i>	

09-14--Issue Status--Protected Steel Treatment Receptacles.txt

Issue Number: 09-14  
Subject: Protected Steel Treatment Receptacles  
Date New: 7/29/2009  
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: 3/4/2010  
Date of TRAP Final Recommendation: 7/15/2010  
TRAP Final Recommendation: approve  
Ready for Inclusion in Rule: NO

Issue Development Notes:

8/27/09 TRAP Tabled so that DOH could work with industry on language to make sure DOH can approve issue.  
12/09 Paul met with Highland Tank representatives to work on language.  
1/28/10 TRAP approved for variance  
3/4/10 Variance Comments: CHD-No issue but not practical; STI-if they meet standards steel is fine but the code says 1250 maximum size.; REI-why?; ENG-would rather not. Too hard to inspect welds, etc. Would require much manufacturing inspection.; DEP-I don't see the need to do this.; HBI-Why? This should never be made mandatory. Way too expensive.  
5/19/10 Eliminated some undefined terminology.  
5/25/10 Eliminated some undefined terminology. Need referenced standards. Need to reference per 120.  
7/15/10 TRAP passed to Rule with edits.  
7/20/10 edits made. Still need references to incorporate and still need to address undefined jargon: manway, downcomer, large, basin.  
11/22/2011 Edits made to eliminate jargon. Still need references., Still need some acronyms explained. Do we need repair or acceptable damage limits language?  
12/7/2011 Removed from rulemaking to finish cleaning language and collecting references.



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

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

(a) Onsite wastewater treatment receptacles include: septic tanks, graywater tanks, laundry tanks, grease interceptors, pump tanks, aerobic treatment unit tanks, tanks containing treatment media and stationary holding tanks not described in paragraph 64E-6.0101(7)(p), F.A.C. Treatment receptacles shall be constructed of concrete, fiberglass or polyethylene. In addition to these materials, grease interceptors shall be permitted to be constructed of protected steel.

(b) No change

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

1. through 3. No change

(d) through (f) No change

(2) through (7) No change

(8) Protected steel grease interceptors. The following requirements are applicable to protected steel grease interceptors:

(a) Steel used in the construction shall be carbon structural, hot-rolled sheet or strip steel plate having a minimum wall thickness of USS 7 gauge, conforming to either ASTM A36-91, ASTM A569/A569a, or ASTM A653/653M-92, herein incorporated by reference.

(b) All welds shall be made in accordance with AWS D1.1, herein incorporated by reference

(c) The exterior and interior surfaces of the receptacle shall be prepared by steel grit blasting to a SSPC blast profile based on the coating manufacturer specification. Prior to coating, steel shall be dry and free of dust, oil, oxidation and grease. The substrate surfaces shall be a minimum of 5°F (2.78°C) above the dew point of ambient air. -[WHAT IS SSPC?]

(d) Protection: All protective coatings for steel treatment receptacles shall be solvent and tar-free, two-component polyurethane or two-component high temperature epoxy specifically designed for direct application to properly prepared steel surfaces as evidenced by conformance to AWWA C222-99, D102-03 and GS 11, herein incorporated by reference, for VOC and chemical content. Coating minimum DFT thickness shall be verified utilizing a National Institute of Standards (NIST) calibrated electronic magnetic gauge using the NIST thickness standards. WHAT IS DFT?]

1. Exterior coating materials used in the receptacle manufacturing process shall be capable of effectively resisting the corrosive influences of the liquid components of ground water and chemical conditions typically found in native soils. Materials used shall be formulated to withstand shock, vibration, normal household chemicals, deterioration from sunlight and other environmental factors. Exterior coatings shall be independent-third-party listed as conforming to UL-1746, herein incorporated by reference.

a. Exterior coating shall be at least 75 MILS thick after curing.

b. Exterior coatings shall provide a minimum impact strength of forty (40) inch-pounds when evaluated in accordance with ASTM D256, herein incorporated by reference.

2. Interior coating materials used in the receptacle manufacturing process shall be capable of effectively resisting the corrosive influences of the liquid components of sewage, sewage gases, organic fats, oils and grease. Materials used shall be formulated to withstand shock, vibration, normal household chemicals, deterioration from sunlight and other environmental factors.

a. Interior coating shall be at least 15 MILS thick after curing.

b. Interior coating shall provide a minimum impact strength of thirty (30) inch-pounds when

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47 evaluated in accordance with ASTM G14, herein incorporated by reference.

48 (e) The manufacturer shall establish a design mix and production process for protective  
49 coatings. The manufacturer shall maintain permanent records that are to be available to the  
50 Department that includes the material specifications, pertinent design data and production  
51 processes. For example; measuring equipment, batch sizes, mixing sequence, transportation  
52 techniques from mixer and spraying techniques.

53 (f) Structural proof test three receptacles to the design strength per paragraph 64E-  
54 6.013(1)(c), F.A.C., for receptacles having an effective capacity of 1350 gallons or less. The  
55 structural integrity of a protected steel receptacle shall be verified by an engineer, laboratory or  
56 state employee in accordance with UL58, herein incorporated by reference.

57 (g) Structural proof test one receptacle to the design strength in accordance with paragraph  
58 64E-6.013(1)(c), F.A.C., for receptacles having an effective capacity greater than 1350 gallons.  
59 The structural integrity of a protected steel receptacle shall be verified by and engineer,  
60 laboratory or state employee in accordance with UL58.

61 (h) Protected steel treatment receptacles utilized as grease interceptors shall be cylindrical,  
62 horizontal, atmospheric-type protected steel vessel. Free fats, oil, and grease (FOG)  
63 concentration in the effluent from the interceptor shall not exceed 100 mg/l (100 PPM).

64 1. Field fabrication of protected steel treatment receptacles shall be prohibited.

65 2. Protected steel treatment receptacles shall be fabricated, inspected and tested for leakage  
66 before shipment from the factory by the manufacturer as a completely assembled, single vessel  
67 ready for installation.

68 3. Protected steel treatment receptacles that are divided into multiple compartments shall be  
69 divided using a baffle wall as described in 64E-6.013(2) or by the use of a vertical a grease dam  
70 adjacent to a vertical sludge baffle. When grease dams and sludge baffles are used, the following  
71 standards shall apply:

72 a. Grease dams shall extend to at least six inches above the liquid level line and extend to  
73 within 12 inches of the bottom of the receptacle. The adjacent sludge baffles shall extend from  
74 the bottom of the treatment receptacle to no less than 60 percent of the effective depth.

75 b. A grease dam shall be no less than four inches nor more than six inches from the adjacent  
76 sludge baffle.

77 c. A grease dam shall be positioned toward the inlet end of the receptacle from the adjacent  
78 sludge baffle.

79 d. For determining the capacity of the compartments of a receptacle, the plane of the grease  
80 dam projected to the top and bottom of the receptacle shall be considered the division between  
81 the compartments.

82 4. An inlet diffusion baffle if used shall be no less than four inches from the innermost extent  
83 of the tank inlet.

84 5. A vented outlet Tee, baffle or other rigid device shall extend to within eight inches of the  
85 bottom of the receptacle and shall extend at least six inches above the liquid level line.

86 6. The inlet and outlet connection of the treatment receptacle shall be a minimum four-inch  
87 diameter plain end pipe section no more than four inches in length. Connection between the plain  
88 end and the adjacent plumbing shall be made using connectors meeting 64E-6.013(2)(f) or  
89 ASTM D5926, herein incorporated by reference.

90 7. Each compartment shall have access using manholes and there shall be a manhole over the  
91 inlet and the outlet devices. The manholes shall be 24-inch diameter, UL approved, with

cylindrical riser extension, cover, gasket, and bolts. Striker plates shall be placed under the manhole to protect the tank shell during pump-out operations.

8. The legend as required in 64E-6.013(2)(j) may be stamped into a plate that is permanently affixed to the receptacle at the point of manufacture. The attachment position shall meet the requirements of 64E-6.013(2)(j).

(8) through (12) renumbered as (9) through (13) No change

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

14-01--Issue Status--Rule Reduction.txt

Issue Number: 14-01  
Subject: Rule Reduction  
Date New: 9/1/2014  
Date Initially Heard by TRAP: 9/25/2014  
Date Tabled by TRAP:  
Date Initially Approved by TRAP:  
Date Heard by Variance Committee:  
Date of TRAP Final Recommendation:  
TRAP Final Recommendation:  
Ready for Inclusion in Rule: NO

Issue Development Notes:

Many of these issues were already approved by TRAP. Short term cost savings may be realized by deleting requirements for unobstructed area, voiding permits, some deed restrictions, spodic soil replacement under drip lines, requiring repairs to meet current sizing rather than 1.5 times original sizing, standards-based testing concentrations rather than testing additives to an arbitrary concentration, allowing more design options for systems in the florida keys, dropping requirement that all innovative testing be performed under NSF ETV, reduction of septage disposal site inspection fees.

Cost increases could be: repair permit fees for failures within one year of original installation, repairs of failing pre-1983 systems needing to achieve 12-inch water table separation, maintaining records of additives by pumpers, providing copies of septage hauling logs, tank testing and design modification for those manufacturers that have not demonstrated compliance with 2006 standards,

9/25/2014 TRAP offered several comments and language changes on the issue. Changes will be made in a separate document to maintain line numbering of initial (9-25-14) document until TRAP comments on entire document.

10/16/2014 TRAP teleconference meeting discussed up to 64E-6.015(5)(i) . Will teleconference on Nov 6 to continue discussion and look at 64E-6.0101.

CHAPTER 64E-6 9-25-2014 version  
STANDARDS FOR ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS

64E-6.001	General
64E-6.002	Definitions
64E-6.003	Permits
64E-6.004	Application for System Construction Permit
64E-6.005	Location and Installation
64E-6.006	Site Evaluation Criteria
64E-6.008	System Size Determinations
64E-6.009	Alternative Systems
64E-6.010	Septage and Food Establishment Sludge
64E-6.0101	Portable Restrooms and Portable or Stationary Holding Tanks
64E-6.011	Abandonment of Systems
64E-6.012	Standards for the Construction, Operation, and Maintenance of Aerobic Treatment Units
64E-6.013	Construction Materials and Standards for Treatment Receptacles
64E-6.014	Construction Standards for Drainfield Systems
64E-6.015	Permitting and Construction of Repairs
64E-6.0151	Product Composition
64E-6.016	U.S. Department of Agriculture Soil Textural Classification System <del>(Repealed)</del>
64E-6.017	Definitions <del>for Systems in the Florida Keys</del>
64E-6.018	System Location, Design and Maintenance Criteria <del>for Systems in the Florida Keys</del>
64E-6.0181	<del>System Repair and</del> Cesspit and Undocumented System Replacement <del>in the Florida Keys</del>
64E-6.0182	Coordinated Permitting <del>(Repealed)</del>
64E-6.019	Requirements for Registration <del>of Septic Tank Contractors</del>
64E-6.020	Master Septic Tank Contractors
64E-6.021	Issuance of Registration Certificates and <del>Annual</del> Renewal <del>of Septic Tank Contractors</del>
64E-6.022	Standards of Practice and Disciplinary Guidelines <del>for Septic Tank Contractors</del>
64E-6.023	Certification of Partnerships and Corporations <del>Offering and Providing Septic Tank Contracting Services</del>
64E-6.025	Definitions <del>for Performance-Based Treatment System Standards</del>
64E-6.026	Applications for Innovative System Permits and <del>Performance-Based Treatment</del> System Construction Permits
64E-6.027	<del>Performance-Based Treatment System</del> Permits
64E-6.028	Location and Installation <del>of Performance-Based Treatment Systems</del>
64E-6.029	Monitoring <del>of Performance-Based Treatment Systems</del>
64E-6.0295	Innovative System Reclassification
64E-6.030	Fees

**64E-6.001 General.**

(1) The provisions of Part I (64E-6.001 - 6.016) of this chapter shall apply to all areas of the state except where specific provisions in Part II (64E-6.017 - 6.0182), addressing the Florida Keys, or specific provisions in Part IV (64E-6.025 - 6.0295), addressing performance-based treatment systems, exempt or modify compliance with Part I. Part III (64E-6.019 - 6.023) addresses the registration of septic tank contractors and authorization of partnerships and corporations. Part V (64E-6.030) addresses fees for services throughout the chapter. The provisions of this chapter must be used in conjunction with Chapter 381 and Part III of Chapter 489, F.S.

(2) ~~All Permanent and temporary s~~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 ~~Section~~~~Rule~~ 64E-6.0101, F.A.C., permanent structures shall not rely upon the use of holding tanks and portable toilets ~~for wastewater treatment and disposal~~.

~~(3) Combination of commercial and domestic sewage into a single system shall require that all the sewage be treated as commercial sewage.~~

~~(3)(4)~~ Except as provided for in Section 381.00655, F.S., any existing and prior approved system which has been placed into use and which remains in satisfactory operating condition shall remain valid for use under the terms of the rule and permit under which

it was approved. Alterations that change the conditions under which the system was permitted and approved, sewage characteristics or increase sewage flow will require that the owner, or their authorized representative, apply for and receive reapproval of the system by the ~~DOH county health~~ department, prior to any alteration of the structure, or system. If an applicant requests ~~that~~ the department consider the previous structure's or establishment's most recent approved occupancy, the applicant must provide written documentation that the ~~onsite sewage treatment and disposal~~ system was approved by the department for that previous occupancy.

(a) An applicant ~~shall will be required to~~ complete Form DH 4015, ~~###08/09~~, Application for Construction Permit, herein incorporated by reference, ~~available at https://flrules.org/gateway/reference.asp?No=Ref-####~~, and provide a site plan in accordance with paragraph 64E-6.004(3)(a), F.A.C., ~~to provide information of the site conditions under which the system is currently in use and conditions under which it will be used.~~

(b) The applicant shall have all ~~system~~ tanks pumped by a permitted septage disposal service. A registered ~~or master~~ septic tank contractor, state-licensed plumber, ~~or~~ person certified under Section 381.0101, F.S., ~~or master septic tank contractor~~ shall determine the tank volume and ~~shall~~ perform a visual inspection of the ~~empty~~ tank ~~when the tank is empty~~ to detect any observable defects or leaks ~~in the tank~~. The tank volume shall be obtained from the tank legend or ~~shall be~~ calculated from measured ~~internal~~ tank dimensions ~~for length, width and depth to the liquid level line or from the measured outside dimensions for length and width minus the wall thickness and depth to the liquid level line or~~. For odd shaped tanks and tanks without a legend, metered water flows from the refilling of the tank may be used ~~in lieu of measured inside or outside tank dimensions~~. ~~Results of the visual inspection and measurements~~ The person performing the inspection shall ~~be reported~~ submit the results to the ~~DOH county health~~ department as part of the application using page 4 of Form DH 4015.

(c) If a ~~prior approved~~ existing system has been approved by the ~~DOH county health~~ department within the preceding five years, and the system was determined to be in satisfactory operating condition at that time, a new inspection is not required ~~unless there is a record of failure of the system~~. If it is determined that a new inspection is not required, only ~~the~~ application fee shall be charged ~~for this application and approval~~.

(d) If the use of a building is changed or if additions or alterations to a building are made which will increase domestic sewage flow, change sewage characteristics, or compromise the integrity or function of the system, the ~~onsite sewage treatment and disposal~~ system ~~serving such building~~ shall be brought into full compliance with ~~the provisions and requirements of~~ these rules.

1. ~~Proper well setbacks shall be maintained.~~

12. Prior to ~~system modification~~ the owner or agent shall obtain a permit in accordance ~~any modification of the system, the owner shall apply for and obtain a permit for modification of the system from the county health department in accordance with~~ Section ~~Rule~~ 64E-6.004, F.A.C. The permit shall be valid for 18 months from the date of issue. Where building construction has commenced, it shall be valid for an additional 90 days. ~~The installation of a laundry system, a gray water system, a grease interceptor, or additional drainfield as a precautionary measure to prolong system functioning of an existing system is considered a system modification.~~

23. Necessary-site ~~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., registered septic tank contractors, master septic tank contractors, or persons certified under Section 381.0101, F.S., or department personnel for the appropriate fee specified in Section 381.0066, F.S.~~

(e) For residences, flows shall be calculated using new system criteria for bedrooms and building area, including existing structures and any proposed additions. Table I and footnotes shall apply. No part of the existing structure, or the addition to the structure shall be allowed to cover any part of the system. Non-load bearing structures, such as a concrete patio floor, are allowed to cover the septic tank, provided that access to the tank is provided for maintenance. The structure above the septic tank shall have a minimum opening of 225 square inches at each end of the septic tank for access into the tank. ~~Each opening shall have a minimum dimension of 15 inches.~~ The structure shall not be in direct contact with the tank. A barrier of soil or plastic shall be used between the tank and non-load bearing structure. A modification, replacement, or upgrade of an onsite sewage treatment and disposal system is not required for a remodeling addition if a bedroom is not added. For those residences ~~adding that add bedrooms sewage flow~~, the system shall be required to be altered to meet the following criteria:

1. The septic tank need not be replaced if it is structurally sound and is within one tank size of the required specifications found in Table II, for the proposed structure. An approved outlet filter shall be installed if one is currently not in place. If existing tanks are not within one tank size of the required specifications found in Table II, for the proposed structure, they shall be replaced or supplemented to meet sizing requirements for new systems. If a new tank is installed in series, the resulting configuration must meet the sizing requirements for tanks-in-series in Section 64E-6.013, F.A.C.

2. The ~~county health department shall require the~~ existing drainfield ~~shall to~~ be increased to current rule drainfield size requirements ~~for new systems, for the proposed estimated sewage flow using the appropriate soil loading rate and sizing criteria for new systems~~. Where the existing elevation of the bottom surface of the drainfield is less than 24 inches above the wet season high water table, the bottom of the drainfield shall be maintained at the existing separation or a minimum of 12 inches above the wet season high water table, whichever is greater.

3. Where the bottom of the drainfield is less than 12 inches above the wet season high water table, the drainfield shall be brought into full compliance with all new system standards, ~~as long as it is the intent of the applicant to proceed with the addition to the residence.~~

(f) For ~~non-residential~~ ~~commercial~~ establishments, the system shall not be required to be altered ~~if~~ unless domestic sewage flow ~~is not expected to~~ will increase by more than 20% of original design flow or ~~require~~ more than one tank size adjustment is required. ~~An department-approved~~ outlet filter device shall be installed. Any system used to treat and dispose commercial wastewater shall be brought into full compliance with the provisions and requirements of current rules for new systems when there is any increase in sewage flow or increase in waste strength.

(g) These requirements do not authorize a residence or establishment to exceed the ~~lot flow allowances~~ authorized lot flow under ~~paragraph 64E-6.005(7)(c), F.A.C. 381.0065(4), F.S.~~ Establishments ~~that~~ currently exceeding ~~exceed~~ lot ~~authorized~~ flow allowances shall not ~~be allowed to~~ increase sewage flow.

~~(h) The installation of a laundry system, a gray water system, a grease interceptor, or additional drainfield as a precautionary measure to prolong system functioning of an existing system is considered a modification to the system. Such installation is not a modification if it is associated with an increase in estimated sewage flow or change in sewage characteristics, if the system is in failure or if the existing system is in non-compliance with the terms of the original permit, in which case it will be considered a new system.~~

~~(h)(i)~~ If an existing system is disconnected from a structure that was made unusable or destroyed following a disaster, the system may be reconnected to a rebuilt structure per the provisions of s. 381.0065(4)(y).

~~(4)(5)~~ The department Procedure for Voluntary Inspection and Assessment of Existing Systems, May, 2000, herein incorporated by reference, available at <https://flrules.org/gateway/reference.asp?No=Ref-####>, shall be applied except in situations pertaining to an increase in sewage flow, ~~or~~ change in sewage characteristics, or system failure ~~of the system~~. ~~The inspection is designed to assess the condition of a system at a particular moment in time. The inspection will identify obviously substandard systems, for example systems without drainfields. The inspection is not designed to determine precise code compliance, nor provide information to demonstrate that the system will adequately serve the use to be placed upon it by this or any subsequent owner. Nothing in this section shall be construed to limit the amount of detail an inspector may provide at their professional discretion.~~ Persons allowed to perform work under this section shall be ~~master septic tank contractors, registered~~ or master septic tank contractors, state-licensed plumbers, and persons certified under Section 381.0101, F.S. Department employees are excluded from performing these evaluations. Aerobic treatment units and performance-based treatment systems shall ~~not be evaluated using this criteria, but shall be evaluated by the approved maintenance entity which maintains the unit or system. Nothing in this section restricts the person having ownership of, control of, or use of an onsite sewage treatment and disposal system from requesting a partial inspection.~~ The person performing the voluntary inspection ~~inspector~~ shall provide the person requesting the inspection a copy of the department Procedure for Voluntary Inspection and Assessment of Existing Systems and written notice of their right to request an inspection based on part or all of the standards.

~~(5)(6)~~ Citations issued by the department shall be on Form DH 3146, ~~###11/02~~, Citation for Violation, Onsite Sewage Programs/ Sanitary Nuisance, hereby incorporated by reference, available at <https://flrules.org/gateway/reference.asp?No=Ref-####>.

~~(6)(7)~~ All materials incorporated herein that are not available at [flrules.org](https://flrules.org) may be reviewed at the Bureau of Environmental Health, 4025 Esplanade Way, Tallahassee, Florida 32399-1710. All materials incorporated herein may be obtained from the Bureau of Environmental Health at [www.MyFloridaEH.com](http://www.MyFloridaEH.com) or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida 32399-1713.

*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, 7-16-13, \_\_\_\_\_.*

#### 64E-6.002 Definitions.

For the purposes of this chapter, the following words and phrases shall have the meanings indicated in this section. Additional definitions are in section 381.0065(2), F.S.:

- (1) Absorption surface – the total surface area of soil at the bottom of the drainfield.
- (2) Aerobic treatment unit – a sewage treatment unit which introduces air into sewage to provide aerobic biochemical stabilization within a treatment receptacle.
- (3) Alternative system – any approved ~~onsite sewage treatment and disposal~~ system used in lieu of, including modifications to, a standard subsurface system.
- (4) American National Standards Institute, hereafter referred to as ANSI – an organization comprised of trade associations, technical societies, professional groups, consumer organizations, and individual companies with headquarters located at 1430

Broadway, New York, New York 10018. ~~This organization acts as a clearinghouse and coordinating body for voluntary standards activities in the United States, and approves as American National Standards those standards that have been developed according to its principles of openness, due process and consensus. Among its activities is accreditation of third-party certification programs.~~

(5) American Society for Testing Materials hereafter referred to as ASTM – a technical society with headquarters located at 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA, 19428-2959 1916 Race Street, Philadelphia, Pennsylvania, 19103, ~~which develops and publishes national standards for the testing and quality assurance of construction materials.~~

(6) Approved – ~~an onsite sewage treatment and disposal~~ system constructed and installed in compliance with the standards and requirements of this chapter and which has received final installation approval. “Approved” ~~installation~~ does not imply that a system will perform satisfactorily ~~for a specific period of time.~~

(7) Approved maintenance entity – any person or business entity which has been issued a written permit by the ~~DOH-county~~ health department to provide maintenance services associated with approved onsite aerobic treatment units.

(8) Aquifer – ~~a geological formation, group of formations, or part of a formation that is capable of yielding potentially usable quantities of potable water from wells or springs.~~

(9) Available publicly owned or investor-owned sewerage system – as defined by Section 381.0065(2), F.S.

(10) Base flood – the flood having a one percent chance of being equaled or exceeded in any given year.

(11) Bedroom – as defined by Section 381.0065(2), F.S.

(8) (12) Building Area – that enclosed habitable area of a dwelling unit, excluding the garage, carport, exterior storage shed, or open or screened patios or decks. Calculations of building area shall be made by measurements of the outside building dimensions. Building area of each additional story of the structure shall be added to determine the total building area.

(9) (13) Commercial Sewage Waste – ~~commercial wastewater per the Interagency Agreement Between The Department of Environmental Protection and The Department of Health for Onsite Sewage Treatment and Disposal Systems, [INSERT DATE], 2013, herein incorporated by reference, available at https://flrules.org/gateway/reference.asp?No=Ref-####. Non-toxic, non-hazardous wastewater from commercial facilities. Examples of establishments included in this definition are commercial and institutional food operations, commercial laundry facilities with no more than 4 machines, and animal holding facilities.~~ Combination of commercial and domestic sewage into a single system shall be considered commercial sewage.

(10) (14) Department – the Department of Health including authorized agents of the individual ~~DOH-county~~ health departments.

(15) Domestic sewage waste – as defined by Section 381.0065(2), F.S. Domestic sewage is further categorized as:

(a) Blackwater – as defined by Section 381.0065(2), F.S.

(b) Graywater – as defined by Section 381.0065(2), F.S.

(11) (e) Domestic sewage waste ranges:

1. Carbonaceous Biochemical Oxygen Demand (CBOD<sub>5</sub>), maximum 300 mg/L;

2. Total Suspended Solids (TSS), maximum 200 mg/L;

3. pH, 6 – 8; or within 1 pH unit of the water supply pH; and

4. Nitrogen (Total Kjeldahl Nitrogen, TKN) maximum 100 mg/L.

(12) (16) Dosing Tank – See Pump Tank.

(17) Drainage Ditch – ~~a trench dug for the purpose of draining water from the land or for transporting water for use on the land. Swales are excluded from this definition.~~

(13) (18) Drainfield – a system of ~~open-jointed or~~ perforated piping, approved alternative distribution units, or other treatment facilities designed to distribute effluent for filtration, oxidation and absorption by the soil within the zone of aeration.

(14) (19) Dwelling unit – a ~~single-family~~ residence ~~for the housing of a single family~~ whether ~~such residence is a~~ detached structure or a unit of a multiple family building.

(15) (20) Effective capacity – the liquid volume of a tank contained below the liquid level line.

(16) (21) Effective soil depth – the depth of slightly or moderately limited soil material at ~~an onsite sewage treatment and disposal~~ system drainfield site.

(17) Engineer – as defined by section 471.005(5), FS.

(18) (22) Establishment – a multi-family housing, apartment, condominium or townhouse complex, a mobile home park or recreational vehicle park, a non-residential commercial or institutional development or places of business or assembly. An establishment includes all buildings or structures, and the land appertaining thereto and shall have an owners association or other legal entity ~~which is~~ responsible for maintenance and operation of the ~~development's~~ sewage treatment and disposal facilities.

(19) (23) Failure – a condition ~~existing within an onsite sewage treatment and disposal system which that~~ prohibits the system from functioning in a sanitary manner and which results in the discharge of untreated or partially treated wastewater onto ground surface, into surface water, into ground water, or which results in the ~~inability failure~~ of building plumbing to discharge properly.

(20) (24) Filled System – a drainfield system where a portion, but not all, of the drainfield sidewalls are located at an elevation above the elevations of undisturbed native soil on the site.

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(21) (25) Flooding – a covering of soil surface by water from any source, such as overflowing streams ~~overflowing their banks~~, runoff ~~from adjacent or surrounding slopes~~, elevation of the ground water table above ~~exceeding that of~~ the soil surface, or combinations of these. Terms also associated with flooding and used elsewhere in this chapter are:

(a) Frequent – flooding which occurs more than once every two years on the average;

(b) Ten year flood elevation – ~~that~~ flood elevation which has with a 10 in 100 probability of being equaled or exceeded in any calendar year.

(26) Florida Keys – as defined by Section 381.0065(2), F.S.

(22) (27) Food Establishment Sludge – oils, fats, greases, food scraps and other grease interceptor contents generated by a food operation or institutional food preparation facility using ~~an onsite sewage treatment and disposal~~ system.

(23) (28) Impermeable – when used in reference to Section 381.0065(2)(~~l~~)(~~k~~), F.S., shall mean a condition where the maximum hydraulic conductivity is less than or equal to  $1 \times 10^{-7}$  centimeters per second.

(25) (29) Industrial, hazardous or toxic sewage waste – wastewater not otherwise defined as domestic sewage waste or commercial sewage waste. Includes w Wastewater carried off by floor drains, utility sinks and equipment drains located in buildings in industrial or manufacturing areas, ~~estimated volumes of~~ commercial sewage ~~wastes~~ exceeding 5000 gallons per day, ~~wastewater from~~ commercial laundry facilities with more than 4 self-service machines, and ~~wastewater from vehicle~~ car and truck washes ~~are included in this definition~~.

(30) Innovative system – as defined by Section 381.0065(2), F.S.

(26) (31) Limitation ratings – Soil classification ratings which describe the relative suitability of soils to properly assimilate sewage effluent. The three rating categories for the purpose of this rule are:

(a) Slightly limited – soil materials with favorable properties for the use of a drainfield.

(b) Moderately limited – soil materials that have properties moderately favorable for the use of a drainfield.

(c) Severely limited – soil materials which have one or more properties unsuitable for the use of a drainfield.

(32) Lot – as defined by Section 381.0065(2), F.S.

(33) Mean annual flood line – as defined by Section 381.0065(2), F.S.

(34) Mean annual flood line indicators – as used in Section 381.0065(2), F.S., means:

(a) Water stains – shall mean the same as the hydrologic indicator used in the Florida Wetlands Delineation Manual, under the definition of “Water marks”;

(b) Hydric adventitious roots – shall mean the same as the hydrologic indicator used in the Florida Wetlands Delineation Manual, under the definition of “Morphological plant adaptations”;

(c) Drift lines – shall mean the same as the hydrologic indicator used in the Florida Wetlands Delineation Manual, under the definition of “Drift lines and rafted debris”;

(d) Rafted debris – shall mean the same as the hydrologic indicator used in the Florida Wetlands Delineation Manual, under the definition of “Drift lines and rafted debris”;

(e) Aquatic mosses and liverworts – shall mean the same as the hydrologic indicator used in the Florida Wetlands Delineation Manual, under the definition of “Aquatic mosses and liverworts”;

(f) Moss collars – a proliferation of terrestrial mosses and liverworts that mark the upper limits of the mean annual flood line;

(g) Lichen lines – shall mean the same as the hydrologic indicator used in the Florida Wetlands Delineation Manual, under the definition of “Elevated lichen lines.”

(27) (35) Mean high water – as defined in Section 177.27, F.S. ~~the average height of tidal high waters over a 19-year period.~~

(28) (36) Mean high water line – as defined in Section 177.27, F.S. ~~the intersection of the tidal plane of mean high water with the shore.~~

(29) (37) Mound system – ~~a drainfield constructed at a prescribed elevation in a prepared area of fill material. All~~ all drainfields where any part of the bottom surface of the drainfield is located at or above the elevation of undisturbed native soil in the drainfield area ~~is a mound system~~.

(30) (38) National Sanitation Foundation International, hereafter referred to as NSF – a not for profit research, education and service organization located at ~~789 N. Dixboro Road, Ann Arbor, Michigan, 48105~~ 3475 Plymouth Road, Ann Arbor, Michigan, 48106, ~~that develops standards and criteria for equipment, products and services that bear upon health.~~

(31) (39) Non-potable water well – a well intended exclusively for irrigation purposes, or for supplying water to a heat pump system or a well for receiving discharge water from a heat pump system.

(40) “O” Horizon – ~~the layer of organic matter on the surface of a mineral soil. This soil layer consists~~ consisting of decaying plants residues.

(41) Obstructed land – ~~those areas on a lot or property used for such purposes as pools, concrete slabs, buildings, driveways, parking and similar areas which prohibit, hinder, or affect the installation, operation or maintenance of an onsite sewage treatment and disposal system.~~

(33) (42) Onsite sewage treatment and disposal system, also referred to as system – as defined by Section 381.0065(2)(~~k~~)(~~j~~),

F.S. Appurtenances installed within the building sewer prior to a treatment receptacle shall not be included in this definition.

~~Systems covered by Chapter 403, F.S., are not included in this definition.~~

(43) Potable water line—~~as defined by Section 381.0065(2), F.S.~~

(34) (44) Potable water well – a source of water used for drinking, culinary or domestic purposes.~~The following classifications of potable wells are used in this chapter. Classified as:~~

(a) Private potable well – a well used only by one or two dwelling units~~residences~~, one of which may be a rental unit~~residence~~.

(b) Public drinking water well – a well serving any drinking water system other than a private water system. Public systems are classified in Sections 403.842, and 381.0062, F.S.~~the following manner:~~

1. Community public water system—as defined in Section 403.852, F.S., such water system serves a year-round residential population of at least 25 people per day or has a minimum of 15 year-round residential service connections.
2. Non-community public water system—as defined in Section 403.852, F.S., such water system serves a transient population of at least 25 people per day at least 60 days per year or has a minimum of 15 non-residential service connections.
3. Non-transient non-community public water system—as defined in Section 403.852, F.S., such water system is not a community water system, but is a system that regularly serves at least 25 of the same people for over 6 months of the year.
4. Limited-use public water system—a public water system not regulated by the Florida Safe Drinking Water Act or Chapter 62-550, 62-555, or 62-560 of the F.A.C., and further specified as limited-use commercial public water system which provides piped potable water to one or more non-residential establishments and limited-use community public water system which provides piped potable water to five or more private residences or two or more rental residences.

(e) Multi-family water well—a well that is used by three or four residences, one of which may be a rental residence.

(35) (45) Pump tank – a tank, or dedicated section of a multi-compartment tank or tank compartment used to locate house an effluent a pump that is used to distribute effluent to a drainfield, or other part of an onsite sewage treatment and disposal system.

(46) Regulatory floodway—means the channel of a river or other water course and adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

(37) (47) Repair – system replacement of or, modifications or additions to a failing system which are necessary to allow the existing system to properly function in accordance with its design or must be made to eliminate a public health or pollution hazard. Servicing or replacing with like kind mechanical or electrical parts ~~of an approved onsite sewage treatment and disposal system~~; or making minor structural corrections to a tank, or distribution box, ~~does not constitute~~ is not a repair. The use of any treatment method that is intended to improve the system functioning of any part of the system, or to prolong ~~or sustain the length of time the system functions~~ life, shall be considered is a repair. The use of any ~~non-prohibited~~ additive by the system owner, through the building plumbing, ~~shall not be considered~~ is not a repair. Removal of the tank contents of any tank, replacement of a broken lid, or the installation of an approved outlet filter device, where the drainfield is not disturbed, ~~shall not be considered~~ is not a repair. ~~Replacement of a broken lid to any tank shall not be considered a repair.~~ Splicing a drip emitter line where no emitter is eliminated ~~shall not be considered~~ is not a repair.

(38) (48) Septage – as defined by Section 381.0065(2), F.S., excluding ~~Excluded from this definition are~~ the contents of portable toilets, holding tanks, and grease interceptors.

(39) (49) Septic tank – a watertight receptacle ~~constructed to promote separation of solid and liquid components of wastewater, to provide limited digestion of organic matter, to store solids, and to allow clarified liquid to discharge for further treatment and disposal into~~ to a drainfield.

(40) (50) Spoil material – any part of the existing drainfield, ~~any~~ adjacent soil material within 24 inches vertically and 12 inches horizontally of the drainfield, and ~~any~~ soil that has visible signs of effluent ~~that has been~~ removed as part of a repair, modification or abandonment ~~of an onsite sewage treatment and disposal system~~.

(41) (51) Standard subsurface drainfield system – ~~an onsite sewage treatment and disposal~~ system drainfield consisting of a distribution box or header pipe and a drain trench or absorption bed with all portions of the drainfield sidewalls installed below the elevation of undisturbed native soil.

(52) Subdivision—as defined by Section 381.0065(2), F.S.

(53) Surface water bodies—are classified as:

- (a) Permanent nontidal surface water body—as defined by Section 381.0065(2), F.S.
- (b) Tidally influenced surface water body as defined by Section 381.0065(2), F.S.

(42) (54) Swale – a manmade, vegetation-stabilized ~~vegetatively-stabilized~~ trench containing which contains contiguous areas of standing or flowing water for less than 72 hours following a rainfall event. A swale has a top width-to-depth ratio of the cross-section equal to or greater than 6:1, or side slopes equal to or greater than 3 feet horizontal to 1 foot vertical.

(43) (55) Temporary – a single period or an accumulation of periods not exceeding 120 total days in any 365-day period.

(56) Toxic or hazardous chemical—as defined by Section 381.0065(2)(p), F.S.

(44) (57) Undisturbed native soil – soil ~~which has been~~ deposited by nature onto a site ~~by the actions of nature and which has not been disturbed or altered by the human activities of man~~.

(45) (58) Water table elevation –~~the~~ upper surface of the groundwater or ~~that~~ level below which the soil or underlying rock

material is ~~wholly~~ saturated with water. ~~Water table elevation is~~ measured from the soil surface downward to the upper level of saturated soil or up to the free water level.

(46) (59) Wettest season — ~~that~~ period of time each year ~~in which the~~ when ground water table elevation ~~can is~~ normally be expected to be at its highest elevation.

Rulemaking Authority 381.0065(3)(a) FS. Law Implemented 381.0065 FS. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.42, Amended 3-17-92, 1-3-95, Formerly 10D-6.042, Amended 11-19-97, 3-22-00, 11-26-06, 7-16-13, \_\_\_\_\_.

#### 64E-6.003 Permits.

(1) System Construction Permit – No portion of an ~~onsite sewage treatment and disposal~~ system shall be installed, repaired, altered, modified, abandoned or replaced until a system construction permit has been issued ~~on Form DH 4016, 08/09, Construction Permit, herein incorporated by reference.~~ If building construction has commenced, the system construction permit shall be valid for an additional 90 days beyond the eighteen month expiration date. ~~A fee shall not be charged for a repair permit issued within 12 months from the date of final authorization of the onsite sewage treatment and disposal system.~~ If a construction or repair permit for an ~~onsite sewage treatment and disposal~~ system is transferred to another person the expiration date of the construction or repair permit shall not be amended, ~~but shall run from the date of original issuance prior to the transfer. Servicing or replacing with like kind mechanical or electrical parts of an approved onsite sewage treatment and disposal system; pumping of septage from a system; or making minor structural corrections to a tank, or distribution box, does not constitute a repair.~~

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

(a) ~~If the system construction is approved after an inspection by the DOH county health department, the department shall issue a "Construction Approval" notice to the installer.~~

(a) (b) If the system installation does not pass the ~~construction inspection on any type of system installation,~~ the person installing the system ~~installer~~ shall make all required corrections and notify the DOH county health department of the completion of the work prior to reinspection of the system. A reinspection fee shall be charged ~~to the installer~~ for each additional inspection prior ~~leading up to construction approval.~~

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

1. For engineer-designed systems, an engineer shall ~~In addition, if the system was designed by an engineer, who shall be licensed in the State of Florida, the DOH county health department shall require the design engineer or the design engineer's designee, who shall be a licensed engineer, to certify that the installed system complies with the approved design and installation requirements. Single family residences are excluded from this requirement, however, all changes to the engineering specifications shall be approved by the design engineer.~~

2. If additional site visits ~~after the construction approval inspection~~ are necessary to establish the compliance of the building construction and lot grading, or to establish the compliance with any provision of this chapter, a reinspection fee shall be charged ~~to the permit applicant for each inspection of the building and site leading to the final installation approval.~~

3. If an operating permit is required for the ~~onsite sewage treatment and disposal~~ system, final installation approval shall not be granted until the operating permit application and fee have been received by the Department.

(d) ~~Where an establishment is serviced by an onsite sewage treatment and disposal system, Section 381.0065(4), F.S., shall govern when occupancy of a building can be allowed. "Approved" installation does not imply that a system will perform satisfactorily for a specific period of time.~~

(e) ~~Systems which are required to have an annual or biennial operating permit and the structures which they serve shall be inspected by the department at least once per year during the term of the permit to determine compliance with the terms of the operating permit.~~

(3) Repair Inspections – A system repair shall be inspected by the department or a master septic tank contractor ~~to determine compliance with construction permit standards prior to final covering of the system in compliance with.~~ Inspections shall comply ~~with~~ subsection 64E-6.003(2), F.A.C., and the following:

(a) A master septic tank contractor may, at their option, cover a system repair when the following conditions are met:

1. The master septic tank contractor has requested an inspection from the department during the normal duty day before the date and time the repair will be ready for inspection. Inspections must be scheduled during normal inspection hours and in conjunction with the inspection schedule of the county health department ~~having jurisdiction.~~

2. At the date and time specified for inspection, the department is not on site to conduct an inspection within 30 minutes of the

scheduled time. If the department is on site to conduct the inspection and the system is not ready for inspection within 30 minutes after the scheduled time, a reinspection shall be requested. A reinspection fee shall be charged. ~~If a contractor-Contractors shall~~ cancels or reschedules ~~an inspections~~ not later than two hours prior to the scheduled time. ~~In such cases,~~ no reinspection fee shall be charged.

3. The master septic tank contractor is physically on site and conducts the inspection.

(b) The master septic tank contractor shall document the inspection on ~~page 3 of~~ Form DH ~~XXXX4046, ###/##, "System Repair Certification", herein incorporated by reference, available at~~ <https://flrules.org/gateway/reference.asp?No=Ref-#####>, and fax or hand deliver the form to the department by the next normal duty day ~~following the inspection.~~

(c) A master septic tank contractor shall not cover a system repair when the department has performed an inspection and has notified the contractor of violations. Any system ~~that has been~~ inspected by the department and found to be in violation of ~~construction~~ standards of this ~~chapter~~rule, must receive a reinspection from the department before the system may be covered. A reinspection fee shall be charged for each reinspection leading to final approval.

(d) The department ~~is shall issue a~~ "final approval" of the system repair ~~shall be~~ based on the master septic tank contractor's ~~inspection~~certification.

(e) Nothing herein prevents the department from inspecting a system ~~that was~~ inspected by a master septic tank contractor. ~~No inspection is final until approved by the department.~~

~~(4) Voiding a permit—After an onsite sewage treatment and disposal system has received final installation approval from the department, if the building is modified in such a way that a larger system would be required, if any portion of the required drainfield unobstructed area is covered by impervious material, if the property is subdivided into a smaller lot or lots whereby the permitted system would not have been originally approved, if a well is installed on the property which violates the setbacks to the approved system, or if the system is improperly modified or damaged, the department shall undertake administrative action to revoke the permit. The department shall prohibit the further or continued use of a system when the permit has become void by injunction or other procedure authorized by law.~~

~~(4) (5) Operating permits – No business or facility shall occupy a building served by an onsite sewage treatment and disposal system if the building is located in an area zoned or used for industrial or manufacturing purposes or its equivalent; or where a business will generate commercial sewage waste; and no structure shall be occupied where an aerobic treatment unit or performance-based treatment system is used, until an "Application for Onsite Sewage Treatment and Disposal System Operating Permit" Form DH 4081, ###/##, herein incorporated by reference, available at~~ <https://flrules.org/gateway/reference.asp?No=Ref-#####>, ~~has been received and approved by the department. Form DH 4081, 10/96 "Application for Onsite Sewage Treatment and Disposal System Operating Permit," is herein incorporated by reference.~~

~~(a) Property owners or their authorized agents are required to obtain an annual operating permit for systems located in an area zoned or used for industrial or manufacturing purposes or its equivalent or where a business will generate commercial sewage waste. The permit shall designate the person or entity responsible for the operation and maintenance of the system; the type of activity proposed on the site; persons or businesses which will use the system; equipment and types and quantities of chemical compounds which will be used by the building occupants which are likely to be discharged into the onsite sewage treatment and disposal system. At a minimum, the~~ ~~The~~ owner or person responsible for maintenance of the system shall test, or cause to be tested, the ~~onsite sewage treatment and disposal system effluent in a qualitative and quantitative manner for any chemical compounds associated with the particular establishment's industrial or manufacturing operations conducted in that establishment, as directed by the county health department. The frequency of testing shall be specified on the annual operating permit.~~

~~(b) Operating permits are not transferable from location to location or from owner to owner. If the owner of the system remains the same but the tenancy of the building changes, a Business Survey, Form DH 4081 A, ###/##10/96, herein incorporated by reference, available at~~ <https://flrules.org/gateway/reference.asp?No=Ref-#####>, ~~must be completed and submitted to the DOH county health department~~department for review. Changes in building occupancy shall be reviewed per Section 381.0065(4), F.S.

~~(c) Maintenance entities contracting to service aerobic treatment systems and performance-based treatment systems shall obtain a biennial operating permit from the DOH county health department for the system. Persons operating an aerobic treatment unit or performance-based treatment system shall permit department personnel right of entry to the property during normal working hours to allow for effluent sampling or evaluating the general state of repair or function of the system. Persons required to obtain an annual operating permit for an onsite sewage treatment and disposal system in an industrial or manufacturing zone or its equivalent, or where the system receives commercial sewage, shall not be required to obtain another operating permit for the same an aerobic treatment unit or performance-based treatment system at that site. Performance-based treatment systems that also include an aerobic treatment unit require only one biennial operating permit for the system. Systems receiving commercial sewage that are located in industrial or manufacturing zones or equivalent require only one annual operating permit.~~

~~(5) (6) Expired Permits – Any A new construction, repair, or modification permit issued by the department, that has received construction approval within the previous five years but has not received final approval may be approved provided all of the following conditions are met:~~

(a) The applicant or agent provides a written statement that there have been no changes in application or site conditions from the original permit. The statement must specifically address any changes on adjacent lots.

(b) A site re-evaluation confirms site conditions have not changed sufficiently to place the system in violation of the rules under which it was permitted and received construction approval.

(c) Fees for a new system construction permit and the research surcharge are paid. A site re-evaluation fee is paid, if applicable. A new permit shall be issued under the rules under which the original permit was issued.

(d) A final system inspection is performed showing compliance ~~with all rules under which the construction approval was granted~~. If applicable, a system re-inspection fee is paid.

~~(6) (7) All materials incorporated herein that are not available at [flrules.org](http://flrules.org) may be reviewed at the Bureau of Environmental Health, 4025 Esplanade Way, Tallahassee, Florida 32399-1710. All materials incorporated herein may be obtained from the Bureau of Onsite Sewage Programs at [www.MyFloridaEH.com](http://www.MyFloridaEH.com) or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida 32399-1713.~~

*Rulemaking Authority 381.0065(3)(a), 489.553(3), 489.557(1) F.S. Law Implemented 381.0065, 381.0067, 386.041 F.S. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.43, Amended 3-17-92, 1-3-95, 5-14-96, 2-13-97, Formerly 10D-6.043, Amended 3-22-00, 4-21-02, 5-24-04, 11-26-06, 6-25-09, 4-1-10, 4-28-10, 7-16-2013.*

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

(1) No person shall cause or allow construction of a system without first applying for and obtaining a system construction permit. Form DH 4015 shall be used for recording permit application information.

(2) An application shall be completed in full, signed by the owner or the owner's authorized ~~representative agent, or a contractor licensed in accordance with Chapter 489, F.S.,~~ and shall be accompanied by all required exhibits and fees. ~~If the owner of a property uses an authorized representative to obtain a new system construction permit, a signed statement from the owner of the property assigning authority for the representative to act on the owner's behalf shall accompany the application. This statement shall include specific information allowing the representative to act on the owner's behalf in all aspects of an application for an onsite sewage treatment and disposal system. Except for a contractor licensed in accordance with Chapter 489, F.S., an agent must have written authorization from the owner to act on the owner's behalf.~~

(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 department personnel; registered ~~or master~~ septic tank contractors; ~~master septic tank contractors;~~ ~~by persons who have successfully completed a department-approved soils morphology course who are working under the direct responsible charge of an engineer;~~ professional soil scientists certified and registered by the Florida Association of Environmental Soil Scientists; ~~or by;~~ and persons certified under Section 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), F.A.C. Results of site investigations shall be entered on, or attached to, the system construction permit application form ~~for consideration by the county health department~~. Site evaluations shall occur not earlier than 180 days prior to the date the department receives the permit application. Site evaluations remain valid for the life of the permit. The application shall also include the following data:

(a) A ~~to-scale plan or plat~~ of the lot or total site ownership. ~~The site plan shall be drawn to scale and shall be for the property where the system is to be installed. All site plans shall use standard civil engineering, non-metric scales. Site plans drawn with a scale of 10 – 30 feet to one inch shall have a margin of error of not more than one-half foot. Smaller scale site plans shall have a margin of error of not more than two feet between the scaled distance and the dimension shown or required. Site plans shall be drawn on Form DOH 4015 or submitted on 8.5x11 inch or up to 24x36 inch paper using the scale that maximizes the size of the plan.~~

1. The site plan shall show boundaries with dimensions and any of the following features that exist or that are proposed:
  - a. ~~S~~Structures;
  - b. ~~S~~Swimming pools;
  - c. ~~R~~Recorded easements;
  - d. ~~Onsite sewage treatment and disposal~~ system components;
  - e. ~~S~~Slope of the property;
  - f. ~~W~~Wells;
  - g. ~~P~~Potable and non-potable water lines and valves;
  - h. ~~D~~Drainage features;



i. ~~F~~illed areas;

j. ~~e~~xcavated areas for onsite sewage systems;

k. ~~O~~bstructed areas;

l. ~~s~~urface water bodies; and

m. ~~L~~ocation of the reference point for system elevation.

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

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

4. If an individual lot is ~~larger than one acre~~ ~~five acres or greater~~, the applicant may draw a ~~minimum~~ 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 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, or the minimum size drawing necessary to properly exhibit all required features, whichever is larger. 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. All information that is necessary to determine the total sewage flow and proper setbacks on the site ownership shall be submitted with the application. ~~The applicant lot shall be clearly identified. A~~ including a copy of the legal description or survey ~~must accompany the application for confirmation of property dimensions only.~~

(b) For residences, a floor plan drawn to scale or showing the total building area of the structure, at the applicant's<sup>2</sup> option, and showing the number of bedrooms and the building area of each dwelling unit. Non-residential establishments shall submit a floor plan drawn to scale showing the square footage of the establishment, all plumbing drains and fixture types, and any other features necessary to determine the composition and quantity of wastewater to be generated. ~~Plumbing fixtures located at a non-residential establishment shall be included on the floor plan, but need not be drawn to scale.~~

(c) At least two soil profile descriptions ~~at the beginning and end of~~ within the proposed system soil absorption area to a minimum depth of 6 feet or to refusal, for which the minimum information provided is the upper and lower horizon boundaries, Munsell color of the horizon and its components and USDA soil texture; using USDA Soil Classification methodology as described in Chapter 3 of the Soil Survey Manual, United States Department of Agriculture, Handbook No. 18, October 1993, herein incorporated by reference. ~~At a minimum, a soil profile shall be provided at the beginning and end of the proposed drainfield site.~~ Where the replacement of severely limited soil is proposed, soil profiles shall be performed to a minimum depth of 6 feet or to the depth of the slightly or moderately limited soil layer lying below the replaced layer, whichever is greater. The evaluator shall document the locations of all soil profiles on the site plan.

(d) Water table elevations ~~which exist at the time of the site evaluation~~ and estimated water table elevation during the wettest season of the year. ~~Water table elevations~~ shall be established from a benchmark or other fixed point of reference located on the property or within ~~reasonable~~ 35 feet proximity to it. The ~~existing~~ property elevation at ~~the site of~~ each soil profile must ~~also~~ be recorded relative to the benchmark or fixed point of reference.

(e) ~~Subdivisions platted and recorded or unrecorded prior to January 1, 1972, will be considered on the basis of an evaluation of soil characteristics, water table elevations, history of flooding and records of service of existing installations in the same general area.~~

(f) ~~A Coastal Construction Control Line Permit or an exemption notice from the Department of Environmental Protection if any component of the onsite sewage treatment and disposal system or the shoulders or slopes of the system mound will be seaward of the Coastal Construction Control Line, established under Section 161.053, F.S. Should the location of the proposed onsite system relative to the control line not be able to be definitively determined based on the site plan and the online products available on the DEP website, the applicant shall provide a survey prepared by a certified professional surveyor and mapper showing the location of the control line on the subject property.~~

(4) All plans and forms submitted by an ~~an~~ licensed engineer shall be dated, signed and sealed. ~~Except as provided for in subsection 64E-6.003(2), F.A.C., the DOH county health department shall require the design engineer to certify that the installed system complies with the approved design and installation requirements. Under the following circumstances, the DOH county health department shall require for review and approval, the submission of detailed system construction plans prepared by an engineer shall be provided to the department who is licensed in the State of Florida:~~

(a) Systems serving establishments with proposed domestic sewage flow rates of 2500 or more gallons per day.

(b) Systems serving establishments with proposed commercial sewage flow rates of 1000 or more gallons per day.

(c) Systems where the total required drainfield area is 1500 square feet or greater.

(d) The applicant proposes to split the flow from any residence or establishment in a method other than that provided for by rule.

(e) The repair or modification of an engineer-designed system that meets these criteria ~~for requiring an engineered design and that alters the original engineered design.~~

(f) All performance-based treatment systems, innovative systems and drip systems.

~~(g) All innovative systems.~~

~~(g) (h)~~ All sites where the seasonal high water table has or will be altered by physical or mechanical means.

~~(h) (i)~~ All sites requiring engineer designs as a condition of a variance or waiver approval.

~~(j) All drip irrigation systems.~~

(5) ~~The applicant shall be the permit holder and shall be held responsible for all information supplied to the department. The signed application, site evaluation, and system design plans when required, serve as the basis by which the department determines the issuance of a construction permit. In the event of a change in any information given in the application which served as basis for issuing a construction permit, the permit holder will immediately file an amended application detailing such changed conditions. If the new conditions are determined to be in compliance with the standards in this chapter, the construction permit shall be amended. If the new conditions are determined to be in non-compliance with the standards of this chapter, the permit shall be revoked subject to the provisions of Chapter 120, F.S. A system construction permit application shall be valid for one year. If a permit has not been issued to the applicant within one year from the date of application, then the department shall review the system construction permit application for accuracy at no charge prior to issuance of a permit. The applicant shall supply a statement that the information contained in the application has not changed, or shall amend the application. If a site visit is necessary as part of the review, then a re-evaluation fee shall be charged. If the rules under which the application was accepted have changed, and an onsite sewage treatment and disposal system construction permit has not been issued, a new permit application shall be required.~~

(6) Requests for variance shall be made on Form DH 4057, ~~##/##/08/09~~, Application for Variance from Chapter 64E-6, F.A.C., herein incorporated by reference, available at <https://flrules.org/gateway/reference.asp?No=Ref-####>.

(7) ~~Where a property owner proposes to build or has built multiple residences or multiple businesses on a single lot, and splitting the property to separate any business or residence will place the system in violation of this chapter, and the entire area of the lot is required to accommodate the designed sewage flow from the multiple residences or multiple businesses to the onsite sewage treatment and disposal system, the property owner must submit, prior to issuance of a construction permit, a written utility easement which has been executed and recorded in the public property records at the county courthouse. The utility easement must bind the property together so that the original lot size is retained for purposes of compliance with all the requirements of Chapter 64E-6, F.A.C., and must include provisions for maintaining the onsite sewage treatment and disposal system. For example, a duplex built on a single lot with a single onsite sewage treatment and disposal system serving both halves of the duplex must have a written utility easement executed and recorded in the public property records before an onsite sewage treatment and disposal system construction permit is issued. In order to obtain a repair permit, the property owner must submit a copy of the recorded utility easement demonstrating the retention of the original lot size for purposes of the onsite sewage treatment and disposal system and a method for maintaining the system. For example, each half of a duplex built on a single lot with a single onsite sewage treatment and disposal system serving both halves of the duplex is sold to separate persons. If, when the onsite sewage treatment disposal system fails, and a written utility easement was not executed and recorded in the public property records before the sales, it must be done before an onsite sewage treatment and disposal system repair permit is issued.~~

(a) ~~Where a property owner proposes to build or has built a single residence or a single business or multiple residences or businesses on multiple lots, and the residence's or business's authorized sewage flow requires the use of multiple lots, or parts thereof, for the onsite sewage treatment and disposal system, the property owner must submit, prior to issuance of a permit, a written utility easement executed and recorded in the public property records at the county courthouse. The utility easement must bind the required property together so that the original lots and their collective size, or part thereof, is retained for purposes of the onsite sewage treatment and disposal system, and must include provisions for maintaining the onsite sewage treatment and disposal system. For example, a residence or business built on three lots with a sewage flow which is large enough to require the land from all three lots must have a written utility easement executed and recorded in the public property records before an onsite sewage treatment and disposal system construction permit may be issued. In order to obtain a repair permit, the property owner must submit a copy of the recorded utility easement demonstrating the retention of the original lots and their collective size for purposes of the onsite sewage treatment and disposal system and a method for maintaining the system.~~

(b) ~~Where a property owner proposes to build or has built a single residence or a single business on multiple lots and the structure of the building itself crosses the property lines to encumber all of the lots, and there is no wall within the structure coinciding with any of the property lines, no additional instrument shall be required bind the lots together.~~

(c) ~~(b)~~ Where a property owner, through inadvertent error or mistake, has built multiple residences or multiple businesses on a series of lots and each residence or business has its own ~~onsite sewage treatment and disposal system~~ or the sewage flow from the residence or business exceeds the allowable limits established for the area of land upon which the residence or business is located, the property owner ~~must execute and~~ record in the public property records, a written utility easement, for the remaining undeveloped

lots in the subdivision, which informs the public of the amount of sewage flow which will be generated or the number of ~~onsite sewage treatment and disposal~~ systems which will be installed ~~in that subdivision~~. It must also state that when the maximum amount of sewage flow or maximum number of ~~onsite sewage treatment and disposal~~ systems has been reached for the subdivision, no further development can occur until sewer is available.

(8) Innovative Systems or new product approval ~~for onsite sewage treatment and disposal systems~~ shall be initiated by submittal of an application for ~~temporary~~ permit using Form DH 3143, ~~###/###Jan-94~~, hereby incorporated by reference, ~~and available at https://flrules.org/gateway/reference.asp?No=Ref-#####. Completed Form DH 3143 shall be submitted to the Department 's Bureau of Environmental Health in Tallahassee. Department offices in the individual counties DOH county health departments are~~ authorized to issue installation permits upon receipt of the temporary permit. Form DH 3144, ~~###/###Jan-94~~, available at ~~https://flrules.org/gateway/reference.asp?No=Ref-#####~~, and Form DH 3145, ~~###/###Jan-94~~, available at ~~https://flrules.org/gateway/reference.asp?No=Ref-#####~~, hereby incorporated by reference, shall be used to record information that describes notification requirements between the ~~temporary permit~~-applicant, the ~~DOH county health~~ department office in the county, and the ~~State Health Office~~State office. ~~These forms are to be processed by the DOH county health departments.~~

(9) All materials incorporated herein that are not available at flrules.org may be reviewed at the Bureau of Environmental Health, 4025 Esplanade Way, Tallahassee, Florida 32399-1710. ~~All materials incorporated herein may be obtained from the Bureau of Onsite Sewage Programs at www.MyFloridaEH.com or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida 32399-1713.~~

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

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

(1) The minimum area of each lot under Section 381.0065(4)(a), F.S., shall consist of at least 1/2 acre (21,780 square feet) exclusive of all paved areas and prepared road beds within public rights-of-way or easements and exclusive of surface water bodies. ~~No area outside of the property boundaries may be included in the lot size calculation.~~

(a) The determination of lot densities under Section 381.0065(4)(b), F.S., shall be made on the basis of the net acreage of the subdivision which shall exclude from the gross acreage all paved areas and prepared road beds within public or private rights-of-way or easements and shall also exclude surface water bodies.

(b) Maximum daily sewage flow allowances specified in Sections 381.0065(4)(a), (b) and (g), F.S., shall be calculated on an individual lot by lot basis. Contiguous unpaved and non-compacted road rights-of-way, and easements with no subsurface obstructions that would affect the operation of drainfield systems, shall be included in total lot size calculations. Where an easement is contiguous to two or more lots, each lot shall receive its pro rata share of the area contained in the easement. Surface water bodies shall not be included in total lot size calculations. Subsection 64E-6.008(1), F.A.C., Table I, shall be used for determining estimated average daily sewage flows.

(c) When portions of a lot or lots which were platted prior to January 1, 1972 are combined in such a manner that will decrease the total density of the subdivision, pre-1972 lot provisions shall apply.

(2) All systems and septicage stabilization facilities 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, ground waters, surface waters, or aquifers. ~~To prevent such discharge or health hazards in compliance with setbacks in section 381.0065(4)(c), F.S.~~

(1) Systems and septicage stabilization facilities established after the effective date of the rule shall be placed no closer than the minimum distances indicated for the following:

(a) Seventy five feet from a private potable well as defined in paragraph 64E-6.002(44)(a), F.A.C., or a multi-family water well as defined in paragraph 64E-6.002(44)(c), F.A.C.

(b) One hundred feet from a public drinking water well as defined in paragraph 64E-6.002(44)(b), F.A.C., if such a well serves a facility with an estimated sewage flow of 2000 gallons or less per day.

(c) Two hundred feet from a public drinking water well as defined in paragraph 64E-6.002(44)(b), F.A.C., if such a well serves a facility with an estimated sewage flow of more than 2000 gallons per day.

(d) Fifty feet from a non-potable water well as defined in subsection 64E-6.002(39), F.A.C.

(e) Ten feet from any storm sewer pipe, to the maximum extent possible, but in no instance shall the setback be less than 5 feet.

(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.~~



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

(a) Sidewalks, decks and patios shall not be subject to the 5 foot setback, however, drainfields shall not be installed beneath such structures. Any portion of a drainfield located under such a structure may be left in place but may not be included as a part of the absorption area required by this chapter. Any tank located beneath a driveway shall have traffic lids as specified in paragraph 64E-6.013(1)(f), F.A.C. Concrete structures which are intended to be placed over a septic tank shall have a barrier of soil or plastic material placed between the structure and the tank so as to preclude adhesion of the structure to the tank.

(b) Systems shall not be located within 10 feet of water storage tanks in contact with the ground or potable water lines unless such lines are sealed with a water proof sealant within a sleeve of similar material pipe to a distance of at least 10 feet from the nearest portion of the system or the water lines themselves consist of schedule 40 PCV or stronger. In no case shall the water line be located within 24 inches of the ~~onsite sewage treatment and disposal~~ system. Potable water lines within 5 feet of the drainfield shall not be located at an elevation lower than the ~~drainfield~~ absorption surface. Non-potable water lines shall not be located within 24 inches of the system without backflow devices per Sections 381.0065(2)(m)(4)1. and 2., F.S., being installed on the water line ~~to preclude contamination of the water system.~~ Systems shall not be constructed within 10 feet of Department of Environmental Protection-regulated water mains as defined in rule 62-555.314, F.A.C.

(c) Systems shall be setback a minimum of 15 feet from groundwater interceptor drains.

~~(3) Except for the provisions of Section 381.0065(4)(g)1. and 2., F.S., systems and septage stabilization facilities shall not be located laterally within 75 feet of the boundaries of surface water bodies. Systems and septage stabilization facilities shall be located a minimum of 15 feet from the design high water line of a swale, retention or detention area 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 storm water retention areas.~~

~~(4) Suitable, unobstructed land shall be available for the installation and proper functioning of the system. The minimum unobstructed area shall:~~

~~(a) Be at least 1.5 times as large as the drainfield absorption area required by rule. For example, if a 200 square foot drainfield is required, the total unobstructed area required, inclusive of the 200 square foot drainfield area, would be 300 square feet. Unobstructed soil area between drain trenches shall be included in the unobstructed area calculation.~~

~~(b) Be contiguous to the drainfield.~~

~~(c) Be in addition to the setbacks required in subsections (1), (2), and (3) above.~~

~~(4) (5) Systems Onsite sewage treatment and disposal systems if installed in fill material, the fill shall be slightly limited and required to settle for a period of at least 6 months, or has been compacted to a density comparable to of the surrounding natural soil. The fill material shall be of a suitable, slightly limited soil material.~~

~~(5) (6) To prevent soil smear and excessive soil compaction, drainfields shall not be installed in soils with textures finer than sand, loamy sand, or sandy loam when the soil moisture content is above the point at which the soil changes from semi-solid to plastic.~~

~~(7) Onsite sewage treatment and disposal systems shall be installed where a sewerage system is not available and when conditions in Sections 381.0065(4)(a)-(g), F.S., are met. Onsite graywater tank and drainfield systems may, at the homeowners' discretion, be utilized provided blackwater is disposed into a sanitary sewerage system when such sewerage system is available. Graywater systems may, at the homeowners' discretion, be utilized in conjunction with an onsite blackwater system where a sewerage system is not available for blackwater disposal.~~

~~(a) The minimum area of each lot under Section 381.0065(4)(a), F.S., shall consist of at least 1/2 acre (21,780 square feet) exclusive of all paved areas and prepared road beds within public rights-of-way or easements and exclusive of surface water bodies.~~

~~(b) The determination of lot densities under Section 381.0065(4)(b), F.S., shall be made on the basis of the net acreage of the subdivision which shall exclude from the gross acreage all paved areas and prepared road beds within public or private rights-of-way or easements and shall also exclude surface water bodies.~~

~~(c) Maximum daily sewage flow allowances specified in Sections 381.0065(4)(a), (b) and (g), F.S., shall be calculated on an individual lot by lot basis. The acreage or fraction of an acre of each lot or parcel of land shall be determined and this value shall be multiplied by 2500 gallons per acre per day if a public drinking water well serving a public system as defined in subparagraphs 64E-6.002(44)(b)1., 2., or 3., F.A.C., is utilized, or be multiplied by 1500 gallons per acre per day if a public drinking water well serving a public water system as defined in subparagraph 64E-6.002(44)(b)4., F.A.C., or a private potable well or cistern is utilized. Contiguous unpaved and non-compacted road rights-of-way, and easements with no subsurface obstructions that would affect the operation of drainfield systems, shall be included in total lot size calculations. Where an unobstructed easement is contiguous to two or more lots, each lot shall receive its pro rata share of the area contained in the easement. Surface water bodies shall not be included in total lot size calculations. subsection 64E-6.008(1), F.A.C., Table I, shall be used for determining estimated average daily sewage flows.~~

(d) Platted residential lots shall be subject to the requirements set forth in subsections 381.0065(4)(g)1. and 2., F.S.  
(e) When portions of a lot or lots which were platted prior to January 1, 1972 are combined in such a manner that will decrease the total density of the subdivision, pre-1972 lot provisions shall apply. However, the maximum setback possible to surface water bodies shall be maintained with a minimum setback of 50 feet.  
(6) (8) Notwithstanding the requirements of this section, where an effluent transmission line that consists of schedule 40 PVC, the transmission line shall be set back from private potable wells, irrigation wells or surface water bodies by not less than 25 feet when installed. Effluent transmission lines constructed of schedule 40 PVC shall be set back; from property lines and building foundations by not less than 2 feet; ~~Schedule 40 PVC effluent transmission lines shall be set back~~ and from potable water lines and storm water lines by no less than 5 feet unless all portions of the potable water line or storm water line within 5 feet of the effluent transmission line are:  
(a) ~~A~~ a minimum of 12 inches above the top of the effluent transmission line; and;  
(b) ~~S~~ sealed with a waterproof sealant within a sleeve of schedule 40 PVC or stronger pipe or the water line itself consists of schedule 40 PVC or stronger pipe.  
(7) (9) ~~Systems. Onsite sewage treatment and disposal systems~~ for estimated establishment domestic sewage flows exceeding 5000 gallons per day but not exceeding 10,000 gallons per day shall be located and installed under the following conditions.  
(a) The average estimated daily sewage flow from the establishment shall be divided by the net land area associated with the establishment. The resulting number shall not exceed 2500 gallons per acre per day for establishments which use a water supply as defined in subparagraphs 64E-6.002(44)(b)1., 2. and 3, F.A.C.  
(b) No more than 5000 gallons of wastewater shall be discharged into any single ~~onsite sewage treatment and disposal~~ system serving the establishment.

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-6.006 Site Evaluation Criteria.

~~Systems. Onsite sewage treatment and disposal systems~~ may be utilized where lot sizes are in compliance with requirements of subsection 64E-6.005(1)(7), F.A.C., and all of the following criteria are met:  
(1) The effective soil depth throughout the drainfield installation site extends 42 inches or more below the bottom surface of the drainfield. Paragraphs 64E-6.006(1)(a), (b) and (c) list soil texture classes with their respective limitation ratings.  
(a) Coarse sand not associated with an estimated wet season high water table within 48 inches below the absorption surface, sand, fine sand, loamy coarse sand, coarse sandy loam, loamy sand, and sandy loam are ~~considered to be~~ slightly limited soil materials.  
(b) Very fine sand, loamy fine sand, loamy very fine sand, silt loam, silt, loam, fine sandy loam, very fine sandy loam, sandy clay loam, clay loam, silty clay loam, sandy clay and silty clay soil are ~~considered to be~~ moderately limited soil materials ~~and are subject to evaluation with other influencing factors and local conditions~~.  
(c) Clay, bedrock, oolitic limestone, fractured rock, hardpan, organic soil, gravel and coarse sand, when coarse sand is associated with an estimated wet season high water table within 48 inches of the absorption surface are severely limited soil materials. If severely limited soil material can be replaced with slightly limited soil material, see Footnotes 3 and 4 of Table III for minimum requirements. Where limestone is found to be discontinuous along the horizontal plane and is dispersed among slightly or moderately limited soils, the Department Policy for Drainfield Sizing in Areas With Discontinuous Limestone, August 1999, herein incorporated by reference, and available at <https://flrules.org/gateway/reference.asp?No=Ref-####>, shall be used.  
(2) The water table elevation at the wettest season of the year is at least 24 inches below the bottom surface of the drainfield. In addition, systems shall not be located where the undrained, naturally occurring wet season water table elevation in the area of the proposed system installation is determined to be at or above the elevation of the existing ground surface. However, when sufficient slightly limited fill material is permitted to be placed on the property to construct a properly designed ~~onsite sewage treatment and disposal~~ system, the department shall authorize construction based on the final lot elevation. This provision does not authorize a property owner to fill or modify the site without first obtaining necessary permits for site preparation work from other agencies of government having jurisdiction. The following information shall be used in determining the wet season water table elevation:  
(a) U.S. Department of Agriculture Soil Conservation Service soils maps and soil interpretation records.  
(b) Evaluation of soil color and the presence or absence of mottling.  
(c) Evaluation of impermeable or semi-permeable soil layers.  
(d) Evaluation of onsite vegetation.  
(e) An onsite evaluation of the property ~~which has used the above referenced sources of information and which has considered the season of the year when the evaluation was performed, historic weather patterns, and recent rainfall events~~.  
(3) Setbacks in subsections 64E-6.005(1)(2), (3) and (4), F.A.C., are met.

(4) The installation site of the installation and the additional required unobstructed land referred to in subsection 64E-6.005(4), F.A.C., shall not be ~~covered with asphalt or concrete~~ paved, or be subject to vehicular traffic or other activity ~~as defined in subsection 64E-6.002(4), F.A.C.~~, which would adversely affect the soil, or the operation of the system.

(5) ~~The installation site of the installation and the additional required unobstructed land referred to in subsection 64E-6.005(4), F.A.C.~~, is not subject to saturation from ~~sources such as artificial~~ drainage of ground surfaces, driveways, ~~roads or~~ roof drains, or other such sources.

(6) The existing lot elevation at the installation site of the proposed system installation and any contiguous land referred to in subsection 64E-6.005(4), F.A.C., shall not be subject to frequent flooding. Except for areas affected by Section 381.0065(4)(t), F.S., fill material, if permitted, shall be placed in the area for the system ~~and contiguous unobstructed area~~ to raise the lot elevation above the elevation of the 2 year flood.

(7) All materials incorporated herein that are not available at [flrules.org](http://flrules.org) may be reviewed at the Bureau of Environmental Health, 4025 Esplanade Way, Tallahassee, Florida 32399-1710. ~~All materials incorporated herein may be obtained from the Bureau of Onsite Sewage Programs at [www.MyFloridaEH.com](http://www.MyFloridaEH.com) or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida 32399-1713.~~

Rulemaking Authority 381.0011(4), (13), 381.0065(3)(a) FS. Law Implemented 381.0065, 381.00655 FS. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.47, Amended 3-17-92, 4-16-92, 1-3-95, Formerly 10D-6.047, Amended 3-22-00, 11-26-06, \_\_\_\_\_.

#### 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) The applicant may provide ~~DOH county health department shall accept~~, for other than residences and food operations, metered water use data ~~in lieu of the estimated sewage flows set forth in Table I~~. For metered flow consideration, the applicant shall provide authenticated monthly water use data documenting water consumption for the most recent 12 month period for at least six ~~similar establishments. Similar establishments are those of~~ like size operations engaged in the same type of business or service, ~~which are~~ located in the same type of geographic environment, and ~~which have approximately~~ the same operating hours. Metered flow values will not be considered to be a reliable indicator of typical water use where one or more of the establishments utilized in the sample has exceeded the monthly flow average for all six establishments by more than 25 percent or where the different establishments demonstrate wide variations in monthly flow totals. ~~When metered flow data is accepted in lieu of estimated flows found in Table I, the~~ The highest flow which occurred in any month for any of the ~~six similar establishments shall be used for system sizing purposes.~~ Except for food operations ~~which exceed domestic sewage waste quality parameters as defined in subsection 64E-6.002(15), F.A.C.~~, where an existing establishment ~~which has been~~ in continuous operation for the previous 24 months ~~seeks to utilize its own metered flows~~, the applicant ~~shall may~~ provide authenticated monthly water use data ~~documenting water consumption for the most recent 24 month period. The highest monthly metered flow value for an existing establishment shall be used for system sizing purposes.~~ At a minimum system size shall be based on 200 gallons per day.

(b) ~~When onsite systems use multiple strategies to reduce the total estimated sewage flow or the drainfield size, only~~ Only one reduction method shall be credited to reduce the total estimated flow or drainfield size.

TABLE I  
For System Design  
ESTIMATED SEWAGE FLOWS

TYPE OF <del>GALLONS</del> ESTABLISHMENT <del>PER DAY</del> COMMERCIAL:	<u>GALLONS PER DAY</u>
Airports, bus terminals, train stations, <u>port &amp; dock facilities, Bathroom waste only</u> <del>port &amp; dock facilities, Bathroom waste only</del>	
(a) Per passenger	4
(b) Add per employee per 8 hour shift	15
Barber & beauty shops per service chair	75
Bowling alley bathroom waste <u>only, per lane</u> <del>only per lane</del>	50
Country club	
(a) Per resident	100

(b) Add per member or patron	25
(c) Add per employee per 8 hour shift	15
Doctor and Dentist offices	
(a) Per practitioner	250
(b) Add per employee per 8 hour shift	15
Factories, exclusive of industrial wastes, <u>gallons per employee per 8 hour shift</u>	
<del>gallons per employee per 8 hour shift</del>	
(a) No showers provided	15
(b) Showers provided	25
Flea Market open 3 or less days per week	
(a) Per non-food service vendor space	15
(b) Add per food service establishment using single service articles only per <u>100 square feet of floor space</u>	50
<del>100 Square feet of floor space</del>	
(c) Per limited food service establishment	25
(d) For flea markets open more than 3 days per week estimated flows shall <u>be doubled</u>	
<del>be doubled</del>	
<u>Food operations</u>	
(a) <u>Restaurant open for business 16 hours or less per day, per seat</u>	40
<del>Food operations</del>	40
(a) <del>Restaurant operating 16 hours or less per day, per seat</del>	
(b) Restaurant <u>open for business</u> <del>operating</del> more than 16 hours per day, per seat	60
(c) Restaurant using single service articles only and <u>open for business</u> <del>operating</del> 16 hours or <u>less per day, per seat</u>	20
<del>less per day per seat</del>	
(d) Restaurant using single service articles only and <u>open for business</u> <del>operating</del> more than 16 <u>hours per day, per seat</u>	35
<del>hours per day per seat</del>	
(e) Bar and cocktail lounge per seat	20
<del>Add</del> per pool table or video game	15
(f) Drive-in restaurant per car space	50
(g) Carry out only, including caterers <u>per 100 square feet of floor space</u>	50
<del>1. Per 100 square feet of floor space</del>	50
<del>2. Add per employee per 8 hour shift</del>	15
(h) Institutions per meal	5
(i) Food Outlets excluding <u>deli deli's</u> , bakery, or meat department, per 100 square <u>feet of floor space</u>	10
<del>feet of floor space</del>	
1. Add for deli per 100 square feet of deli floor space	40
2. Add for bakery per 100 square feet of bakery floor space	40
3. Add for meat department per 100 square feet of meat department floor <u>space</u>	75
<del>space</del>	
4. Add per water closet	200
Hotels & motels	
(a) Regular per room	100
(b) Resort hotels, camps, cottages, per <u>room</u>	200
<del>room</del>	200
(c) Add for establishments with self-service <u>laundry facilities per machine</u>	750
<del>service laundry facilities per machine</del>	750
Mobile Home Park	
(a) Per single wide mobile home space, less than 4 <del>single wide</del> spaces <u>connected to a shared or individual system</u>	250
<del>connected to a shared onsite system</del>	
(b) Per single wide mobile home space, 4 or more <del>single wide</del> spaces <u>are connected to a shared or individual system</u>	225
<del>connected to a shared onsite system</del>	
(c) <del>Per double wide mobile home space, less than 4 double wide mobile home spaces connected to a shared onsite system</del>	300
(d) <del>Per double wide mobile home space, 4 or more double wide mobile home spaces connected to a shared onsite system</del>	275
<u>(c) Per mobile home space intended for a mobile home wider than a single-wide.</u>	
<u>Add per mobile home width increment</u>	50

Rule Reduction

Office building	15
per employee per 8 hour shift or <u>per 100 square feet of floor space, whichever is greater</u>	15
<del>per 100 square feet of floor space,</del>	15
<del>whichever is greater</del>	
Transient Recreational Vehicle Park	
(a) Recreational vehicle space for overnight stay, without water and sewer <u>hookup, per vehicle space</u>	50
<del>hookup per vehicle space</del>	
(b) Recreational vehicle space for overnight stay, with water and sewer <u>hookup, per vehicle space</u>	75
<del>hookup per vehicle space</del>	
Service stations per water closet	
(a) Open 16 hours per day or less	250
(b) Open more than 16 hours per day	325
Shopping centers without food or laundry, <u>per square foot of floor space</u>	0.1
<del>per square foot of floor space</del>	
Stadiums, race tracks, ball parks per seat	4
Stores per bathroom	200
Swimming and bathing facilities, public, <u>per person</u>	10
<del>per person</del>	
Theatres and Auditoriums, per seat	4
Veterinary Clinic	
(a) Per practitioner	250
(b) Add per employee per 8 hour shift	15
(c) Add per kennel, stall or cage	20
Warehouse	
(a) Add per employee per 8 hour shift	15
(b) Add per loading bay	100
(c) Self-storage, per unit (up to 200 units)	1
<u>Add 1 gallon for each 2 units or fraction thereof, for any units over 200 units (-and shall be- in addition to flows for</u>	
<del>employees, offices or living quarters flow rates.)</del>	
INSTITUTIONAL:	
Churches per seat which includes kitchen <u>wastewater flows unless meals prepared on a routine basis</u>	3
<del>wastewater flows unless meals</del>	
<del>prepared on a routine basis</del>	
If meals served on a regular basis <u>add per meal prepared</u>	5
<del>add per meal prepared</del>	
Hospitals per bed which does not include <u>kitchen wastewater flows</u>	200
<del>kitchen wastewater flows</del>	
<u>Add per meal prepared</u>	5
Nursing, rest homes, adult <del>congregate</del> <u>living facilities per bed which does not include kitchen wastewater flows</u>	100
<del>living facilities per bed which does not</del>	
<del>include kitchen wastewater flows</del>	
<u>Add per meal prepared</u>	5
Parks, public picnic	
(a) With toilets only per person	4
(b) With bathhouse, showers & toilets per person	10
Public institutions other than schools and <u>hospitals per person which does not include kitchen wastewater flows</u>	100
<del>hospitals per person which does not</del>	
<del>include kitchen wastewater flows</del>	
<u>Add per meal prepared</u>	5
Schools per student	
(a) Day-type	10
(b) Add for showers	4
(c) Add for cafeteria	4
(d) Add for day school workers	15
(e) Boarding-type	75
Work/construction camps, semi-permanent, per worker	50

RESIDENTIAL:

Residences

(a) Single or multiple family per dwelling unit	
1 Bedroom with 750 sq. ft. or less of building area	100
2 Bedrooms with 751-1200 sq. ft. of building area	200
3 Bedrooms with 1201-2250 sq. ft. of building area	300
4 Bedrooms with 2251-3300 sq. ft. of building area	400
For each additional bedroom or each additional 750 square feet of building area or fraction thereof in a dwelling unit, system sizing shall be increased by 60 gallons per dwelling unit.	
(b) Other per occupant	50

Footnotes to Table I:

1. For food operations, kitchen wastewater flows shall normally be calculated as 66 percent of the total establishment wastewater flow.
2. For systems serving high volume establishments, such as restaurants, convenience stores and service stations located near interstate type highways and similar high-traffic areas, require special sizing consideration due to expected above average sewage volume. Minimum estimated flows for these facilities flows shall be 3.0 times the volumes determined from the Table I figures.
3. For residences, the volume of wastewater shall be calculated as 50 percent blackwater and 50 percent graywater.
4. Where the number of bedrooms indicated on the floor plan and the corresponding building area of a dwelling unit in Table I do not coincide, the criteria which will result in the greatest estimated sewage flow shall apply.
4. 5. Convenience store estimated sewage flows shall be determined by adding flows for food outlets and service stations as appropriate to the for products and services offered.
5. 6. Residential Estimated flows for residential systems assumes a maximum occupancy of two persons per bedroom. Where residential care facilities will house more than two persons in any per bedroom, estimated flows shall be increased by 50 gallons per each additional occupant.
- (2) Minimum effective septic tank capacity and total dosing tank capacity shall be determined from Table II. However, where multiple residential family dwelling units are jointly connected to a single septic tank system, minimum effective septic tank capacities specified in the table shall be increased 75 gallons for each dwelling unit connected to the system. With the exception noted in paragraph 64E-6.013(2)(a), F.A.C., all septic tanks shall be multiple-chambered or shall be placed in series to achieve the required effective capacity. The use of an approved outlet filter device shall be required. Outlet filters shall be installed within or following the last septic tank or septic tank compartment before distribution to the drainfield. The outlet filter device requirement includes blackwater tanks, but does not include graywater tanks, or grease interceptors, or laundry tanks. Outlet filter devices shall be placed to allow accessibility for routine maintenance. Utilization, and sizing, and installation of outlet filter devices shall be in accordance with the manufacturers' recommendations. The approved outlet filter device shall be installed in accordance with the manufacturers' recommendations. The department Bureau of Onsite Sewage Programs shall approve outlet filter devices per the department's Policy on Approval Standards For Onsite Sewage Treatment And Disposal Systems Outlet Filter Devices, November 2008, which is herein incorporated by reference, and available at <https://flrules.org/gateway/reference.asp?No=Ref-#####>.

TABLE II  
SEPTIC TANK AND PUMP TANK CAPACITY

AVERAGE SEWAGE FLOW GALLONS/DAY	SEPTIC TANK MINIMUM EFFECTIVE CAPACITY GALLONS	PUMP TANK MINIMUM TOTAL CAPACITY GALLONS	
		Residential	Commercial
0-200	900	150	225
201-300	900	225	375
301-400	1050	300	450
401-500	1200	375	600
501-600	1350	450	600
601-700	1500	525	750
701-800	1650	600	900
801-1000	1900	750	1050
1001-1250	2200	900	1200
1251-1750	2700	1350	1900
1751-2500	3200	1650	2700
2501-3000	3700	1900	3000
3001-3500	4300	2200	3000
3501-4000	4800	2700	3000
4001-4500	5300	2700	3000
4501-5000	5800	3000	3000

(3) Where a separate graywater tank and drainfield system is used, the minimum effective capacity of the graywater tank shall be 250 gallons with such system receiving not more than 75 gallons of flow per day. For graywater systems receiving flows greater than 75 gallons per day, minimum effective tank capacity shall be based on the average daily sewage flow plus 200 gallons for sludge storage. Design requirements for graywater tanks are described in subsection 64E-6.013(2), F.A.C. Where separate graywater and blackwater systems are utilized, the size of the blackwater system can be reduced, but in no case shall the blackwater system be reduced by more than 25 percent. However, the minimum capacity for septic tanks disposing of blackwater shall be 900 gallons.

(4) ~~Where building codes allow separation of discharge pipes of the residence to separate stubouts and where lot sizes and setbacks allow system construction, the applicant may request a separate laundry waste tank and drainfield system.~~ Where an aerobic treatment unit is used, all blackwater, graywater and laundry waste flows shall be consolidated and treated by the aerobic treatment unit. Where a residential laundry waste tank and drainfield system is used:

(a) The minimum laundry waste trench drainfield absorption area for slightly limited soil shall be 75 square feet for a one or two bedroom residence with an additional 25 square feet for each additional bedroom. If an absorption bed drainfield is used the minimum drainfield area shall be 100 square feet with an additional 50 square feet for each additional bedroom over two bedrooms. ~~The DOH county health department shall require additional drainfield area shall be doubled for installation based on moderately limited soils and other site specific conditions, which shall not exceed twice the required amount of drainfield for a slightly limited soil.~~

(b) ~~The laundry waste interceptor shall meet requirements of subsections 64E-6.013(2) and (8), F.A.C.~~

(b) ~~(e)~~ The drainfield absorption area serving the remaining wastewater fixtures in the residence shall be reduced by 25 percent.

(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 ~~with 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  
For Sizing of Drainfields Other Than Mounds

U.S. DEPARTMENT OF AGRICULTURE SOIL TEXTURAL CLASSIFICATION	SOIL TEXTURE LIMITATION (PERCOLATION RATE)	MAXIMUM SEWAGE LOADING LOADING RATE IN GALLONS PER TO TRENCH & BED ABSORPTION SURFACE IN GALLONS PER SQUARE FOOT PER DAY	
OF AGRICULTURE SOIL TEXTURAL CLASSIFICATION	SOIL TEXTURE LIMITATION (PERCOLATION RATE)	FOOT PER DAY	
		TRENCH	BED
Sand; Coarse Sand not associated with a seasonal water table of less than 48 inches; seasonal water table and Loamy Coarse Sand	Slightly limited (Less than 2 min/inch)	0.80	0.60
of less than 48 inches; and Loamy Coarse Sand			
Loamy Sand; Sandy Loam; Coarse Sandy Loam; and Fine Sand	Slightly limited (2-4 min/inch)	0.80	0.60
and Fine Sand Loam;			
Loam; Fine Sandy Loam; Silt Loam; Very Fine Sand; Silt Loam; Very Fine Very Fine Sandy Loam; Loamy Fine Sand; Sand; Very Fine Sandy Loamy Very Fine Sand; and Sandy Clay Loam	Moderately limited (5-10 min/inch)	0.65	0.35
Loam; Loamy Fine Sand; Loamy Very Fine Sand; and Sandy Clay Loam			
Clay Loam; Silty Clay Loam; Sandy Clay; Silty Clay; and Silt	Moderately limited (Greater than 15 min/inch but min/inch but not exceeding 30 min/inch)	0.35	0.20
Clay; Organic Soils; Organic Soils; Hardpan; and Bedrock	exceeding 30 min/inch) Severely limited (Greater than 30 min/ inch)		Unsatisfactory for Standard standard subsurface System
Hardpan; and Bedrock	min/inch)	system	
Coarse Sand with an estimated wet season water an estimated wet season table within 48 inches of the bottom high water table within of the drainfield; Gravel; or 48 inches of the bottom Fractured Rock or Oolitic Limestone	Severely limited (Less than 1 min/inch and min/inch and a water table less than water table less 4 feet below drainfield)		Unsatisfactory for Standard standard subsurface System system



of the proposed  
drainfield; Gravel or  
Fractured Rock or  
Oolitic Limestone

than 4 feet below  
the drainfield)

Footnotes to Table III:

1. U.S. Department of Agriculture major soil textural classification groupings and methods of field identification are explained in Rule 64E-6.016, F.A.C. Laboratory sieve analysis of soil samples may be necessary to confirm field evaluation of specific soil textural classifications. The USDA [Natural Resources Soil](#) Conservation Service "Soil Textural Triangle" shall be used to classify soil groupings based on the proportion of sand, silt and clay size particles.

2. The permeability or percolation rate of a soil within a specific textural classification may be affected by such factors as soil structure, cementation and mineralogy. Where a percolation rate is determined using the falling head percolation test procedure described in the United States Environmental Protection Agency Design Manual for Onsite Wastewater Treatment and Disposal Systems, October, 1980, [herein](#) incorporated by reference into this rule, the calculated percolation test rate shall be used with Table III and evaluated by the DOH county health department with other factors such as history of performance of systems in the area in determining the minimum sizing for the drainfield area.

3. When all other site conditions are favorable, horizons [Horizons](#) or strata of moderately or severely limited soil may be replaced with slightly limited soil or soil of the same texture as the satisfactory slightly limited permeable layer lying below the replaced layer. The slightly limited permeable layer below the replaced layer shall be identified within the soil profile which was submitted with as part of the permit application. The resulting soil profile must show complete removal of the moderately or severely limited soil layer being replaced and must be satisfactory to a minimum depth of 54 inches beneath the bottom surface of the proposed drainfield. The width of the replacement area shall be at least 2 feet wider and longer than the drain trench or and for absorption beds shall include an area at least 2 feet wider and longer than the proposed drain bed. Drainfields shall be centered in the replaced area. Where at least 33 percent of the moderately limited soils at depths greater than 54 inches below the bottom of the drainfield have been removed to the depth of slightly limited soil, drainfield sizing shall be based on the following sewage loading rates: Where severely limited soils are being removed at depths greater than 54 inches below the bottom of the drainfield, 100 percent of the severely limited soils at depths greater than 54 inches shall be removed down to the depth of an underlying slightly limited soil. Maximum sewage loading rates for standard subsurface systems installed in replacement areas shall be 0.80 gallons per square foot per day for trenches systems and 0.60 gallons per square foot per day for absorption beds in slightly limited soil textures. Where system sizing is based on moderately limited soil materials are found beneath the proposed drainfield, and where system sizing is based on that moderately limited soil, soil replacements of less than 33% may be permitted.

4. Where coarse sand, gravel, or oolitic limestone directly underlies the drainfield area, the site shall be approved provided a minimum depth of 42 inches of the rapidly percolating soil beneath the bottom absorption surface of the drainfield and a minimum 12 inches of rapidly percolating soil contiguous to the drainfield sidewall absorption surfaces, is replaced with slightly limited soil material. Where such replacement method is utilized, the [The](#) drainfield size shall be determined using a maximum sewage application rate of 0.80 gallons per square foot per day of drainfield in trenches and 0.60 gallon per square foot per day for drainfield absorption beds.

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 sidewall or encountered within 24 inches of the bottom of the drainfield absorption surface.

(6) [All materials incorporated herein that are not available at flrules.org may be reviewed at the Bureau of Environmental Health, 4025 Esplanade Way, Tallahassee, Florida 32399-1710. All materials incorporated herein may be obtained from the Bureau of Onsite Sewage Programs at www.MyFloridaEH.com or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida 32399-1713.](#)

Rulemaking Authority 381.0065(3)(a) FS. Law Implemented 381.0065 FS. History--New 12-22-82, Amended 2-5-85, Formerly 10D-6.48, 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, 7-16-13, \_\_\_\_.

#### 64E-6.009 Alternative Systems.

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

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

(2) Sanitary pit privy – shall not be permitted. Vault toilets may be allowed through the permitting process ~~except~~ at remote locations where electrical service is unavailable. In no case shall such installations be used permitted for permanent residences.

(3) Mound systems – ~~are used to overcome certain limiting site conditions such as an elevated seasonal high water table, shallow permeable soil overlying slowly permeable soil and shallow permeable soil located over creviced or porous bedrock. Special installation instructions or design techniques to suit a particular site shall, using the criteria in subsection 64E-6.004(4), F.A.C., be specified on the construction permit in addition to the following general requirements:~~

(a) Site preparation must render the site in compliance with requirements of subsections 64E-6.006(1)-(6), F.A.C.

(b) Prior to the construction ~~of a mound system~~, the applicant may fill all or a portion of a lot utilizing slightly limited soil.

(c) The O horizon, ~~the layer of organic matter on the surface of a mineral soil consisting of decaying plants, of or~~ original topsoil and vegetation must be removed from beneath the drainfield, shoulder and slope area and the exposed underlying soil plowed ~~or roughened~~ to prevent formation of an impervious barrier between the fill and natural soil. ~~Moderately limited soil material may be used in the construction of mound systems, but shall only be used in the construction of mound slopes and the soil cap. If moderately or severely limited soil is to be replaced beneath the mound, Section Rule 64E-6.008, F.A.C., Table III, footnotes 3, and 4, shall be followed.~~

(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 Section 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; <del>and</del> Loamy Coarse Sand; <del>and</del> Fine Sand	<u>0.80</u>	<u>0.60</u>
Sandy Loam; Coarse Sandy Loam; and Loamy Sand	<u>0.65</u> <del>0.65</del>	<u>0.40</u> <del>0.40</del>
Fine Sandy Loam; Very Fine Sand; Loamy Fine Sand; and Loamy Very Fine Sand	<u>0.35</u>	<u>0.25</u>

(e) ~~Where moderately limited soils underlie the mound within 36 inches of the bottom of the drainfield, D~~ 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 64E-6.009(3)(d), F.A.C., using Table III for soil loading rates.

(f) There shall be a minimum 4 feet separation between the shoulder of the fill and the nearest trench or absorption bed sidewall. Where a portion of the mound slope will be placed adjacent to building foundations, pilings or supports for elevated structures, mobile home walls, swimming pool walls, retaining walls, or similar obstructions there shall be a minimum 5 foot separation between the sidewall of the absorption area and the obstruction. Such obstructions shall impact the slope on no more than 50 percent of the shoulder perimeter. Retaining walls must be designed by a professional engineer ~~licensed in the State of Florida~~ to withstand the lateral earth forces under saturated conditions and to prevent seepage. Where mounds are placed on slopes exceeding 2 percent,

the toe of the slope on the downslope side of the mound shall extend an additional 4 inches for each additional 1 percent of slope. To taper the maximum elevation of the mound at the outer perimeter of the shoulder down to the toe of the slope, additional moderately or slightly limited fill shall be placed at a minimum 2 foot horizontal to 1 foot vertical grade where mound height does not exceed 36 inches. Mound heights which exceed 36 inches shall have a slope not steeper than 3 foot horizontal to 1 foot vertical. The entire mound including slopes, shoulders and the soil cap shall be stabilized with vegetation. Slopes steeper than 5:1 shall be sodded or hydroseeded. Soil caps and unsodded slopes must, at a minimum, be hydroseeded or seeded with grass and a layer of hay or similar cover. Where fill material is present in the amount so as to provide a level surface from the top of the required cover over the system over the area where the slopes would normally be located, no slopes shall be required. ~~For example, if the neighboring lot has been permanently filled to the same level as the applicant's lot, a five-foot separation from the property line to the system will be required, as opposed to requiring the slope area.~~ Stabilization of a mound shall be the responsibility of the septic tank contractor who constructed the mound system unless the a written agreement for system construction clearly states the system owner is responsible. ~~Mound slopes which do not conform to permit requirements shall at a minimum be restored to permit specifications prior to stabilizing.~~ Other synthetic or vegetative covers providing protection from mound erosion equal to or better than sod shall be approved by the State Health Office ~~department~~. ~~Final installation approval shall not be granted until Sodding, hydroseeding, seeding and haying or other approved s~~ Stabilization of the mound ~~shall has occurred before final installation approval is granted.~~ No portion of the drainfield or shoulder area shall be covered with ~~asphalt or a concrete paved~~ driveway or be subject to vehicular traffic. Landscaping features such as boulders or trees ~~which obstruct drainfield or fill shoulder area shall not be used in drainfield or shoulders.~~ Hydroseeding shall be performed in accordance with the product manufacturer's instructions and Section 7.5, Permanent Seeding, of the Florida Erosion and Sedimentation Control Inspector's Manual, July 2008, herein incorporated by reference.

(g) There shall be a soil cap of slightly or moderately limited soil material over the drainfield and shoulder area. The soil cap shall be no less than 6 inches thick at the outer perimeter of the shoulder. Additional soil cap material shall be placed over the mound and graded to provide drainage off and away from the mound. The maximum depth from the bottom of the drainfield to the finished ground surface shall not exceed 30 inches after natural settling.

(h) The site shall be landscaped according to permit specifications and ~~shall be~~ protected from automotive traffic or other activity that could damage the system. Swales or other ~~surface~~ drainage structures shall ~~be utilized to~~ prevent water shed from mounds draining onto ~~neighboring other~~ property.

(i) All fill material used in the construction of systems shall be free of extraneous non-soil material such as grass, roots and any other debris. Shell fragments less than 2.0 mm in diameter are excluded from the classification of extraneous non-soil materials and are considered to be soil particles. Severely limited soil material ~~and shall not be used in system construction. Fill material consisting of mechanically crushed and sieved rock shall not be used in system construction.~~

(j) Where moderately limited soil is used to construct a mound system, a low pressure distribution network is required.

(4) Filled systems – filled systems shall be constructed in accordance with the ~~minimum~~ requirements for mounds, except as provided for in footnote 5., Table III, and ~~that sewage loading rates to trench or absorption bed bottom areas shall be based on values found in~~ Table III.

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

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

1. Drip irrigation systems shall be designed by an engineer ~~licensed in the State of Florida~~.  
2. The infiltrative area required shall be the same as the area required for a mineral aggregate drainfield with reductions allowed for the reduction of CBOD<sub>5</sub> and TSS as noted in this chapter for aerobic treatment units.

3. In an absorption bed configuration, the drainfield area shall be calculated as extending one foot beyond the sides of the outermost emitter lines. ~~Notwithstanding the provision of paragraph 64E-6.014(5)(b), F.A.C., the~~ The individual bed size limitation of 1500 square feet does not apply ~~to drip emitter systems~~.

4. In a trench ~~containing a single emitter line, the~~ drainfield area shall be ~~calculated as~~ 2 feet ~~multiplied by times~~ the emitter spacing in feet ~~multiplied by times~~ the number of emitters.

5. ~~Drip effluent disposal~~ irrigation systems ~~shall be~~ are considered pressure distribution systems. Head loss calculations shall be provided to insure proper hydraulic pressure at the emitter. Pump selection ~~and performance curves shall be indicated in the design specifications. Pump performance curves shall be included in the~~ permit application.

6. Recirculation rates shall be in the design specifications.

7. Check valves, petcocks, inline filters, and vacuum breaking device locations shall be shown on the design drawings.

8. Drip irrigation systems shall be time-dosed over the 24-hour period. Demand control dosing shall override timed-dosing in periods of flow where timed dosing cannot accommodate the excessive flow.

9. Emitter lines shall be designed as a continuous loop circuit with no dead-ends.

10. Emitter lines shall be drawn to scale and emitter spacing shall be indicated on the drawings.

11. Vacuum release valves shall be installed at the highpoint of the emitter lines.

12. The maximum emitter longitudinal spacing on an emitter line shall be 2 feet. The maximum spacing between adjacent emitter lines in an absorption bed configuration shall be 2 feet. The 24-inch separation from the seasonal high water table shall be measured from the emitter orifice. Setbacks shall be measured from the drip emitter lines.

13. The setback from drip emitter lines to building foundations and property lines shall be no less than two feet.

14. ~~The definition of a filled system in Rule 64E-6.002, F.A.C., is not applicable to drip effluent disposal systems.~~ A drip effluent disposal system is considered to be a mound system when any part of the bottom surface of any drip emitter line is located at or above the elevation of undisturbed native soil ~~in the drainfield area. A drip effluent disposal system is considered a standard subsurface drainfield system when the entire bottom surface of every drip emitter line is installed below the elevation of undisturbed native soil in the drainfield area.~~

15. For mound systems there shall be a minimum 18-inch separation between the shoulder of the fill and the nearest drip emitter line. Mound system slopes shall be in accordance with paragraph 64E-6.009(3)(f), F.A.C., except that a minimum 2 foot separation is required between the nearest drip emitter line and a building foundation, retaining wall, or similar obstruction. ~~Mound systems shall be stabilized in accordance with paragraph 64E-6.009(3)(f), F.A.C.~~

16. For standard subsurface systems, the elevation of any fill covering the drainfield shall extend no less than 18 inches away from all emitter lines before tapering down to natural grade.

17. ~~Minimum cover~~ Cover fill on the emitter lines shall be ~~a minimum of 6 inches for all drip irrigation systems. The and a maximum cover for all drip irrigation systems shall be no greater than~~ 12 inches.

18. The system shall include a petcock on the dosing pump discharge line for effluent sampling.

19. All systems shall incorporate an automatic mechanism for backwashing or flushing the drip lines and filters.

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

~~20. 21.~~ Drip irrigation systems shall be designed to have a minimum operating pressure at the emitter head of 10 PSI, a maximum operating pressure at the emitter head of 45 PSI, a maximum system operating pressure of 60 PSI, and a maximum discharge rate per emitter of 1.5 gallons per hour.

~~21. 22.~~ The hydraulic surge storage requirement of Section Rule 64E-6.028, F.A.C., does not apply to drip irrigation systems.

~~22. 23.~~ Drip irrigation systems shall only use components approved by the ~~department~~ Bureau of Onsite Sewage Programs.

~~24. Unobstructed area for drip irrigation systems may be located anywhere on the establishment property that meets the setbacks for unobstructed area and can be accessed via transmission lines, supply lines and return lines installed in accordance with this chapter. The land containing only transmission lines, supply lines and return lines shall not be included in the calculation of unobstructed area.~~

~~23. 25.~~ Supply lines and return lines shall be considered as transmission lines for determining setbacks not specified in this section.

~~24. 26.~~ Except for slopes required to meet the stabilization requirements of paragraph 64E-6.009(3)(f), F.A.C., the area over the drip irrigation drainfield shall be vegetated ~~with plant species as~~ specified by the design engineer, ~~excluding trees. The species specified shall not include trees.~~

~~25. The minimum effective soil depth below drip emitter lines shall be 42 inches; however, spodic layers greater than 24 inches below the drip emitter lines may remain in place at the discretion of the design engineer.~~

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

(6) Tire chip aggregate ~~systems—tire chip aggregate may be used as a substitute for mineral aggregate in onsite sewage treatment and disposal system drainfields under the following conditions:~~

(a) ~~The tire chips meet~~ meeting the specifications for mineral aggregate found in this chapter ~~may be used only in domestic wastewater systems.~~ Mixed tire and mineral aggregate shall be approved where each type of aggregate meets its respective standard and the combined mixture meets the gradation requirements in paragraph 64E-6.014(5)(c), F.A.C.

(b) Exposed wire ~~shall~~ protrude no more than one-half (1/2) inch from 90% of the chips.

(c) ~~At and at~~ least 80% of the bead wire has been removed from the tires to be chipped.

(d) ~~The system receives domestic wastewater only.~~

(e) Tire chips ~~aggregate~~ shall not be used where the seasonal high water table is less than 12 inches below the bottom of the drainfield ~~at the wettest season of the year.~~

(f) In all other respects tire chip aggregates and mixed tire-mineral aggregates shall be installed with identical site restrictions and construction requirements as approved mineral aggregates.

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

(a) Requests for alternative system component material and design approval shall include:

1. Detailed system design and construction plans by an engineer ~~licensed in the State of Florida;~~  
2. Certification of the performance capabilities of the product submitted by an engineer ~~licensed in the State of Florida;~~  
3. Research supporting the proposed system materials;  
4. Empirical data showing results of innovative system testing in the State of Florida; and  
5. A design, installation and maintenance manual showing how to design and install the system in accordance with this chapter for standard, filled, mounded, gravity-fed, dosed, bed and trench configurations.

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

(c) The detailed plans and information submitted with the approval request shall be reviewed by the department ~~onsite sewage program~~ to determine whether or not there is a reasonable certainty of the effectiveness and reliability of the proposed alternative system component. ~~If the department is not satisfied that the information provided provides reasonable evidence of the effectiveness and reliability of the alternative system component and designs, the department shall deny the approval.~~ Department approval of any alternative system component does not guarantee or imply that any individual system installation will perform satisfactorily for a specific period of time. Upon department approval of the material and design, the manufacturer shall list the department approval date in the installation and design manual. Proposals to amend the approved installation and design manual shall be submitted to the bureau for approval. The date of amendment approval shall be included in the manual.

(d) Except as provided for in Part IV of this chapter, alternative drainfield materials and designs shall not be approved which would result in a reduction in drainfield size using the mineral aggregate drainfield system as described in Section Rule 64E-6.014, F.A.C., ~~and the total surface area of soil at the bottom of the drainfield as the criteria for drainfield sizing comparisons.~~ Alternative system component and design approvals shall not be granted for ~~the following items:~~

- ~~1. Those~~ those items which, in whole or in part, are used to achieve a more advanced level of treatment than the baseline treatment level specified in part IV of this chapter;
- ~~2. a~~ Aerobic treatment units;
- ~~3. s~~ Septic tank ~~tanks~~ designs, filters, seals, and sealants;
- ~~4. a~~ Additives;
- ~~5. h~~ Header and drainfield pipe, ~~including their layout; and~~
- ~~6. w~~ Water table separation and setback requirements.

(e) Unless determined unnecessary or impractical by the ~~d~~ Department ~~at the time of component approval, effective January 1, 2010,~~ all components shall be labeled by the manufacturer with the name of the manufacturer and the model identification of the component. The design, installation and maintenance manual shall show the location of the label and shall include an illustration of a typical label. The label shall be in a location where it will be visible or easily exposed at the time of system inspection. ~~All identifying marks shall be inscribed or affixed at the point of manufacture.~~

(8) Other alternative systems – systems such as low pressure distribution networks, small diameter gravity sewers, low pressure sewer systems, alternating absorption fields, and sand filters designed and submitted by an engineer ~~who is licensed in the State of Florida,~~ meeting the general requirements of this chapter, shall be approved by the ~~DOH county health~~ department where evidence exists that use of such systems will not create sanitary nuisance conditions, health hazards or pollute receiving waters. Use of an alternative system may require the establishment of procedures for routine maintenance, operational surveillance, and environmental monitoring ~~to assure the system continues to function properly.~~

(9) Use of a system to serve more than one residence or commercial building under separate ownership and when located on separate lots shall require the establishment of a ~~local sewer district, maintenance franchise, or other~~ legally binding arrangement for the operation and maintenance of such system. For the purposes of this section, easements for shared wastewater treatment are not considered.

(10) All materials incorporated herein that are not available at flrules.org may be reviewed at the Bureau of Environmental Health, 4025 Esplanade Way, Tallahassee, Florida 32399-1710. All materials incorporated herein may be obtained from the Bureau of Onsite Sewage Programs at www.MyFloridaEH.com or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida 32399-1713.

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

#### 64E-6.010 Septage and Food Establishment Sludge.

(1) No person shall clean or remove the contents of any ~~No~~ septic tank, grease interceptor, privy, or other receptacle associated



with an onsite sewage treatment and disposal system shall be cleaned or have its contents removed until ~~that the service person~~ has obtained an annual ~~service permit~~ written permit (Form DH 4013, 01/92, Operating Permit, herein incorporated by reference) from the ~~DOH county health~~ department office in the county in which the service company is located. Permits issued under this section are required to be obtained by any person or disposal service who seeks to transport, treat, store, dispose or otherwise authorize the disposal service to handle liquid waste associated with food operations, domestic waste, or domestic septage. Such authorization applies to all septage produced in the State of Florida, and food establishment sludge which is collected for disposal from onsite sewage treatment and disposal systems from the time it is collected from the onsite sewage system to the time it is finally disposed or is discharged at a facility regulated by the Department of Environmental Protection.

(2) Application for a service permit shall be made to the ~~DOH county health~~ department on Form DH 4012, ~~###01/92~~. "Application for Septage Disposal Service Permit, Temporary System Service Permit, Septage Treatment and Disposal Facility, Septic Tank Manufacturing Approval" herein incorporated by reference, available at <https://flrules.org/gateway/reference.asp?No=Ref-####>. The following must be provided for the evaluation prior to issuance of a service permit:

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

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

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

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

(b) The proposed disposal method and the site to be used for disposing of ~~onsite sewage treatment and disposal~~ system septage.

(c) The contractor registration number and certificate of authorization number, if applicable.

(3) When a permit is issued, the number of said permit along with the name of the company, its phone number, and the gallon capacity of the ~~hauling truck's~~ waste storage tank shall be prominently and permanently displayed on ~~any~~ each truck that will carry waste across any property line. ~~The the service truck shall be labeled in contrasting colors with 3 inch or larger letters. Use of removable magnetic signs shall not be considered permanent display of vehicle identification information is not allowed. A septage disposal service permit shall be suspended, revoked or denied by the department in accordance with Chapter 120, F.S., for failure to comply with requirements of this chapter.~~

(4) After septage or food establishment sludge is removed from an ~~onsite sewage treatment and disposal~~ system, the original lid of the tank shall be put back in place, or be replaced with a new lid ~~if the original lid is broken~~. The tank lid shall be completely sealed and secured as per paragraph 64E-6.013(2)(i), F.A.C., and the ground backfilled and compacted ~~so that the site is left in a nuisance-free condition~~.

(a) Contents of any treatment tank, including all chambers of a multi-chambered tank, or pump tank shall be removed in their entirety when pumped. Where in the opinion of the person pumping any ~~onsite sewage treatment and disposal~~ system waste receptacle or pump tank, the complete removal of all tank contents may create an unintended problem in regards to the continued use of the system, a complete pumpout is not required. The pumper must document, in writing, to the system owner the reason for the partial pumpout, the quantity gallonage pumped from the system, and what material was left in the tank.

(b) The access to pump a tank must be through the lid of the tank, through the manhole or by moving a sectional lid. Where the tank is chambered, separate chambers must be accessed through the manholes or sectional lid for the chamber being pumped.

~~Pumping shall not be accomplished by entering the tank through inlets or outlets. Where the lid of the tank must be broken in order to gain access for the removal of tank contents, or at anytime when the lid is broken, the lid shall be replaced.~~

~~(c) When a contractor introduces, or causes to be introduced, any product into the system, whether through the plumbing or directly into any part of the system, the contractor shall maintain a record of the product used, the quantity introduced, the location and the dates of the introduction. Such records shall be maintained by the contractor for a minimum of five years and shall be provided to the Department upon request.~~

(5) ~~Untreated food establishment sludges, and septage~~ Septage shall be transported ~~to an approved treatment facility~~ in such a manner as to preclude leakage, spillage or the creation of a sanitary nuisance.

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

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

(a) Land application of domestic septage and sludges shall be permitted provided such septage and sludges have been properly treated by an approved septage-stabilization process, including lime stabilization, and an application using Form DH 4012 has been completed as part of the permitting process. Prior to discharge of septage or food establishment sludge into a stabilization tank, the septage or sludge shall be screened in a pretreatment tank or chamber which contains a final screening method using bar screens having a maximum gap of 1/2 inch or rock screens or other similar mesh material having a maximum 3/4 inch opening. Material retained in the screening process shall be limed, containerized, and disposed of at an approved solid waste disposal facility. Septage or sludge shall pass from the pretreatment tank or chamber to the stabilization tank. Lime stabilization of septage shall be in accordance with processes and designs described in Chapter 6, EPA 625/1-79-011, Process Design Manual for Sludge Treatment and Disposal, hereby incorporated by reference. Facilities approved for septage treatment under this rule shall not receive and treat more than 20,000 gallons of septage or combined septage, grease interceptor, portable restroom or other receptacle waste associated with ~~an onsite sewage treatment and disposal~~ system on any one day and shall not exceed a monthly average of 10,000 gallons of septage or septage and combined domestic waste per day. Stabilization by lime shall raise the pH of the septage to a level of 12 for a minimum of two hours or to a level of at least 12.5 for a minimum of 30 minutes to be deemed sufficient. The pH of the stabilized septage shall be maintained at a level of at least 11 until actual land application, but shall not be land ~~applied~~ spread until the pH of the stabilized septage has fallen below 12.5. To check the pH of the stabilized septage, a sampling port having an internal diameter of no less than 1/2 inch and no more than 3/4 inch and located no more than 60 inches above the ground surface shall be used to allow sampling of waste tank contents. Lime purchase receipts shall be kept at the place of business for a minimum of 6 months.

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

2. Application is limited to sod farms, pasture lands, forests, highway shoulders and medians, plant nursery use, land reclamation projects and soils used for growing human food chain crops. ~~Use on playgrounds, parks, golf courses, lawns, hospital grounds, or other unrestricted public access areas where frequent human contact is likely to occur is prohibited.~~ Application methods shall be conducted in a manner which will disperse the treated septage uniformly over the land application site.

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

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

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

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

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

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

2. The site evaluation fee has been submitted.

3. An Agricultural Use Plan, Form DH 4012A, ~~###08/09~~, herein incorporated by reference, ~~available at~~ <https://flrules.org/gateway/reference.asp?No=Ref-####>, has been ~~completed-submitted~~ for the proposed application site ~~for the permit year~~.

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

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

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

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

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

(d) Land application of septage shall occur only in accordance with paragraph 64E-6.010~~(6) (7)~~(a), F.A.C., unless prohibited by the ~~DOH county health~~ department due to a ~~brief~~ condition which creates a potential ~~for a~~ sanitary nuisance as ~~exemplified~~ in

paragraph 64E-6.010(6)(7)(l), F.A.C.

(e) All septage and food establishment sludge haulers regulated by Chapter 64E-6, F.A.C., are to maintain a collection and hauling log at the treatment site or at the main business location, ~~which provides the information listed below~~. Records shall be retained for five (5) years. A copy of the log for the most recently completed calendar quarter shall be submitted to the department no later than the 15<sup>th</sup> of the month following the end of the quarter. The log shall contain

1. ~~Date~~ the date of septage or waste collection;
2. ~~A~~ address of collection;
3. ~~Indicate whether the point of collection is a residence or business and if a business, the type of business;~~
4. ~~E~~ estimated volume, in gallons, of septage or waste transported;
5. ~~R~~ receipts for lime or other materials used for treatment;
6. ~~L~~ location of the approved treatment facility;
7. ~~D~~ date and time of discharge to the treatment facility; and
8. ~~A~~ acknowledgement from treatment facility of receipt of septage or waste.

(f) All ~~department~~ Department of Health-regulated septage treatment facility operators shall maintain permanent records of the septage or waste receipt, treatment and discharge. Records shall be retained for five (5) years. A copy of the records for the most recently completed calendar quarter shall be submitted to the department no later than the 15<sup>th</sup> of the month following the end of the quarter. At a minimum, these records shall include the ~~following~~:

1. ~~D~~ date and time of each load of septage or waste is received;
2. ~~N~~ name of company from which the septage or waste is received;
3. ~~I~~ identification of the truck from which the septage or waste was received;
4. ~~S~~ signature from the driver acknowledging delivery of the septage or waste;
5. ~~Q~~ quantity of septage or waste received;
6. ~~D~~ date and time of discharge of each load of treated septage or waste;
7. ~~N~~ name of the company which received the treated septage or waste from the treatment facility;
8. ~~S~~ signature from the driver of the truck which received the treated septage or waste; and
9. ~~Q~~ quantity of treated septage or waste discharged to the truck.

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

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

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

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

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

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

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

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

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



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

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

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

$$AAR = N \div 0.0026$$

AAR is the annual application rate in gallons per acre per 365 day period)  $\div$  and N equals the (amount of nitrogen in pounds per acre per 365 day period needed by the crop or vegetation grown on the land)  $\div$  0.0026. Application methods shall be conducted in a manner which will disperse the treated septage uniformly over the land application site.

2. Where the law requires the application of septage to be limited based on phosphorous content, the land application of septage, food establishment sludge, portable restroom waste or any other waste from any system regulated under this chapter is prohibited. application rate is limited by phosphorous, the maximum annual surface application rate of total phosphorous is 40 pounds per acre during any 12 month period. Application of septage shall be applied as evenly as possible during the 12 month period to ensure maximum uptake of phosphorous by the crops used. This equates to 2 dry tons or 12,000 gallons of typical septage per year. However, if the following formula, based on the annual uptake of phosphorous for a given crop is used, the 12,000 gallons of septage applied per acre per year shall be increased if the phosphorous content of the septage will not exceed the phosphorous demand of the crop.

$$AAR = P \div 0.0076 \text{ if the crop demand is calculated for } P_2O_5.$$

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

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

(q)(r) Permanent records of actual application areas and application rates shall be kept. These records shall be maintained by the site owner, lessee, or the land applicator for a period of five years, and shall be available for inspection upon request by the department or by Department of Environmental Protection DEP. A copy of the records for the most recently completed calendar quarter shall be submitted to the department no later than the 15<sup>th</sup> of the month following the end of the quarter. An annual summary of the total septage or sludge applied shall be provided with the annual update to the Agricultural Use Plan. Records shall be kept and shall include:

1. ~~L~~ location of the septage treatment facility from which each load of treated septage is obtained;
2. ~~D~~ date and time the treated septage was obtained from the treatment facility;
3. ~~D~~ dates of septage or sludge land application;
4. ~~W~~ weather conditions when applied;
5. ~~L~~ location of septage or sludge application site;
6. ~~A~~ amounts of septage or sludge applied;
7. ~~S~~ specific area of the site where septage or sludge was applied;
8. ~~pH~~ pH of stabilized septage or sludge being applied;
9. ~~S~~ soil groundwater table when septage was applied;
10. ~~Vegetational~~ vegetation status of application area.

(s) Food establishment sludges may be discharged into permitted domestic wastewater treatment facilities pursuant to the requirements of Chapter 62-600, F.A.C.

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

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

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

(7)(8) Stabilization tanks and septage storage tanks may be located at regional stabilization facilities, at sites owned by the disposal service or at sites owned by the owner or lessee of the septage land application site.

(8)(9) Potable water supplies located at the stabilization tank and septage storage tank site shall be provided with back flow prevention devices to prevent potential contamination of water supplies.

(9)(49) All materials incorporated herein that are not available at [flrules.org](http://flrules.org) may be reviewed at the Bureau of Environmental Health, 4025 Esplanade Way, Tallahassee, Florida 32399-1710. All materials incorporated herein may be obtained from the Bureau

of Environmental Health at [www.MyFloridaEH.com](http://www.MyFloridaEH.com) or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida 32399-1713.

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

(1) Persons servicing portable restrooms, portable hand washing facilities and portable or stationary holding tanks shall obtain an annual service permit on ~~Form DH 4013~~ from the ~~county health department~~ department office in each the county in which the service company has an office or storage yard. ~~The service company need not be permitted in neighboring counties in which the service company operates but does not have an office or storage yard.~~ Service persons shall carry proof of possession of a current annual operating permit and vehicle inspection for review by department personnel in neighboring counties. Permits issued under this rule ~~are required to be obtained by any person or disposal service who seeks to transport, treat, store, dispose or otherwise authorize the disposal service to~~ handle liquid waste associated with portable restrooms, portable hand washing facilities, restroom trailers, shower trailers and portable or stationary holding tanks containing domestic wastewater produced in the State of Florida ~~from the time it is collected to the time it is finally disposed or is discharged at a facility regulated by the Department of~~ Environmental Protection.

(2) Application for a service permit shall be made to the ~~DOH county health department~~ department on Form DH 4012, "Application for Septage Disposal Service Permit, Temporary System Service Permit, Septage Treatment and Disposal Facility, Septic Tank Manufacturing Approval." The following must be provided for the evaluation prior to issuance of a service permit:

(a) Evidence that the applicant possesses adequate equipment such as a tank truck, pumps, off truck stabilization tanks and pH testing equipment where lime stabilization and land application are proposed, as well as other appurtenances and tools necessary to perform the work intended. Equipment may be placed into service only after it has been inspected and approved by the ~~DOH county health~~ department. Tanks used for the stabilization and storage of portable or stationary holding tank waste and portable restroom waste shall be constructed, sized, and operated in accordance with the provisions of subparagraphs 64E-6.010(2)(a)1.-3., F.A.C.

(b) The proposed disposal method and the site to be used for disposing of the waste ~~from portable restrooms or portable or stationary holding tanks.~~

(c) The contractor registration number and certificate of authorization number, if applicable.

(3) When a permit is issued, the number of said permit along with the name of the company, its phone number, and the gallon capacity of the waste storage tank shall be prominently and permanently displayed on the service truck in contrasting colors with 3 inch or larger letters. Use of removable magnetic signs ~~shall not be considered permanent display of vehicle identification information is not permitted. All trucks that haul waste across a property line are required to be inspected and labeled.~~

(4) After waste is removed from a portable or stationary holding tank, the original cap or lid of the tank shall be put back in place, or be replaced with a new cap or lid if the original one is broken. Tank lids shall be completely sealed and secured as per paragraph 64E-6.013(2)(i), F.A.C. The site shall be left in a nuisance-free condition.

(5) Waste ~~from portable or stationary holding tanks or portable restrooms~~ shall be transported ~~to an approved treatment facility~~ in such a manner as to preclude leakage, spillage or the creation of a sanitary nuisance.

(6) All portable restroom and portable or stationary holding tank waste haulers regulated by Chapter 64E-6, F.A.C., are to maintain a collection and hauling log at the main business location ~~which provides the information listed below.~~ Records shall be retained for five (5) years. ~~A copy of the log for the most recently completed calendar quarter shall be submitted to the department no later than the 15<sup>th</sup> of the month following the end of the quarter. The log shall contain~~

~~(a) Date of septage or waste collection;~~

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

~~(c) Location of the approved treatment facility;~~

~~(d) Date and time of discharge to the treatment facility;~~

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

~~(f) The location and the installation or placement date of all portable holding tanks placed into service. When a county health department requests to see the list of holding tank installation locations, only those locations within the health department's county of jurisdiction need to be provided.~~

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

(a) The department shall allow, on a temporary basis, portable restrooms, mobile restrooms, ~~mobile or~~ shower trailers, and portable or stationary holding tanks for fairs, carnivals, revivals, field locations, encampments and other locations which lack permanent structures where people congregate for short periods of time, provided the construction, maintenance, and utilization of such systems conform to the general provisions of this chapter. Portable restrooms, ~~portable or stationary~~ holding tanks or other

restroom facilities shall be provided at commercial and residential building sites for the duration of construction any time workers are present, and shall not be bound by the definition of temporary. All required restroom facilities shall remain accessible whenever the intended users are present. Where the department determines that no health hazard will result, portable restrooms, portable holding tanks, stationary holding tanks, mobile restroom trailers, mobile shower trailers, and portable sinks shall be permitted meeting setbacks that are 50% of the setback requirements of subsections 64E-6.005(1) through (3), F.A.C., provided ~~portable or stationary~~ holding tanks shall be placed within secondary containment structures with a containment capacity of no less than 110% of the total waste capacity of the holding tank. For purposes of this rule, a holding tank is any sealed, water tight fixture for receiving and storing domestic wastewater from plumbing fixtures in remote locations or at building sites or special events. For purposes of this rule, a portable restroom is a transportable, ~~self-contained~~ static or flush-type toilet ~~constructed to promote a sanitary environment at remote locations, building sites or special events,~~ comprised of at least a waste storage receptacle, a riser and toilet seat and a protective enclosure. Portable restrooms, mobile restrooms, and mobile shower trailers at building sites or at a location for a temporary period of time do not require a permit from the department but must comply with the provisions of this rule. A ~~system~~ construction permit (~~DH 4016~~) shall be obtained before placing or installing any stationary holding tanks.

(b) The department shall approve, for permanent use ~~or placement,~~ portable restrooms or stationary holding tanks at continually used locations where restroom facilities are desirable ~~for the promotion of public health~~ and where conventional facilities are neither available nor practical. Examples of such locations would be boat ramps, remote areas of golf courses, office or sales trailers, or other places where people congregate which meet the above criteria. Permanent portable restrooms or stationary holding tanks may not be the primary means of sewage treatment where there are permanent enclosed habitable structures. A construction permit (~~DH 4016~~) shall be obtained ~~before placing or installing any portable restroom or stationary holding tank for permanent use.~~ The portable restroom service company providing portable restrooms or stationary holding tanks shall be responsible for maintenance of the unit and removal if conventional facilities are made available.

(c) Portable restrooms shall be self-contained, have self closing doors and ~~shall be~~ designed and maintained ~~so that to exclude insects are excluded from the waste container.~~

(d) At least one working day prior to the special event, special event organizers shall provide to the department a signed contract, or facsimile copy thereof, with the portable restroom service company specifying the dates the facilities will be on the event site, the number of restroom facilities to be provided, the servicing frequency and the removal date for the units. The minimum portable restroom service company operators shall use Table PR I to determine the required number of facilities for special events for use in situations where no local or state codes provide a minimum number of toilet facilities shall be based on the following:

1. There shall be no less than two toilets provided for any event attended by more than 10 people.  
2. There shall be one toilet for every 350 people or fraction thereof for a one-hour event.  
3. For events lasting more than one hour, the number of toilets calculated for a one-hour event shall be multiplied by 1.6 for a two-hour event, 2.0 for a three-hour event, 2.2 for a four-hour event, 2.3 for a five-hour event, 2.4 for a six-hour event and 2.5 for an event lasting from seven to ten hours.

4. For events lasting more than 10 hours, if the toilets are not serviced at least every eight hours, the minimum number of toilets provided shall be the total number of toilets required for a 10-hour event plus the number of toilets required for events lasting for the number of hours over ten that the proposed event is scheduled to last. Thus, an event lasting 24 hours would require the number of toilets for two 10-hour events plus a four-hour event. ~~Table PR I assumes that the portable restrooms are serviced only once per day. If the restrooms are serviced twice per day, the value from the table shall be divided by two. If they are pumped three or more times per day, the value shall be divided by three. All resulting fractional numbers of restrooms required shall be rounded up to the next higher whole number of restrooms. If permanent restroom facilities are available for use by the attendees,~~

5. ~~The number of portable restrooms may be reduced based on the number of attendees the permanent facilities are designed to accommodate. At least one working day prior to the special event, special event organizers shall provide to the county health department a signed contract, or facsimile copy thereof, with the portable restroom service company specifying the dates the facilities will be on the event site, the number of restroom facilities to be provided, the servicing frequency and the removal date for the units.~~

(e) ~~The Table PR II shall be used to determine the~~ number of required facilities at remote locations and commercial and residential building sites ~~shall be no less than one portable restroom per ten people or fraction thereof per 8-hour shift or fraction thereof.~~

1. ~~Portable restrooms shall be serviced at least once per week. Table PR II assumes that the portable restrooms are serviced only once per week. If the restrooms are serviced twice per week, the number of required facilities value from the table shall be divided by two. If they are pumped three or more times per week, the number value shall be divided by three. All resulting fractional numbers of restrooms required shall be rounded up to the next higher whole number of restrooms.~~

2. Where a contractor has multiple building sites, the individual sites shall be considered a single site for purpose of determining the number of facilities. Portable restrooms serving multiple individual building sites may be shared between sites provided they are no more than 300 feet from any individual building site served.

(f) Waste receptacles shall be watertight and made of non-absorbent, acid and corrosion resistant, ~~corrosion-resistant and~~ easily

cleanable material.

(g) The floors and interior walls shall have a non-absorbent finish and be easily cleanable.

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

(i) Each portable restroom shall have listed in a conspicuous place the name and telephone number of the servicing company.

(j) Portable restrooms shall be maintained in a sanitary condition. Portable restrooms and at special events shall be serviced at least daily.

#### TABLE PR I

#### NUMBER OF PORTABLE RESTROOMS REQUIRED FOR SPECIAL EVENTS

(ASSUMES SERVICING ONCE PER DAY)

NUMBER OF PEOPLE PER DAY	NUMBER OF HOURS FOR EVENT PER DAY									
	1	2	3	4	5	6	7	8	9	10
250	2	2	2	2	2	3	3	3	3	3
500	2	3	4	4	4	4	4	4	4	4
1000	4	5	6	7	7	8	8	8	8	8
2000	6	10	12	13	14	14	14	15	15	15
3000	9	14	17	19	20	21	21	21	21	22
4000	12	19	23	25	28	28	28	30	30	30
5000	15	23	30	32	34	36	36	36	36	36
6000	17	28	34	38	40	42	42	42	44	44
7000	20	32	40	44	46	48	50	50	50	50
8000	23	38	46	50	54	57	57	58	58	58
9000	26	42	52	56	60	62	62	62	64	64
10,000	30	46	57	63	66	70	70	72	72	72
12,500	36	58	72	80	84	88	88	88	88	92
15,000	44	70	84	96	100	105	105	110	110	110
17,500	50	80	100	110	115	120	125	125	126	126
20,000	57	92	115	125	132	138	138	144	144	150
25,000	72	115	144	154	168	175	175	176	176	184
30,000	88	138	168	192	200	208	208	216	216	216

#### TABLE PR II

#### PORTABLE RESTROOMS REQUIRED FOR REMOTE LOCATIONS AND COMMERCIAL AND

#### RESIDENTIAL BUILDING SITES

#### PER SITE OR LOCATION

(ASSUMES SERVICING ONCE PER WEEK)

NUMBER OF PEOPLE PER SITE	NUMBER OF RESTROOMS REQUIRED
8 HOURS PER DAY — 40 HOURS PER WEEK	
1-10	1
11-20	2
21-30	3
31-40	4
41-50	5
over 50	Add 1 restroom for every 10 additional people or fraction thereof

TABLE PR-III HOLDING TANK CAPACITY REQUIRED FOR REMOTE LOCATIONS, AND SPECIAL EVENTS PER SITE OR LOCATION (ASSUMES SERVICING TWICE PER WEEK)	
NUMBER OF PEOPLE PER SITE 8 HOURS PER DAY — 40 HOURS PER WEEK	MINIMUM HOLDING TANK CAPACITY (IN GALLONS)
1	125
2-3	250
4-5	500
6-7	750
over 7	Add 125 gallons for each additional person

(k) Portable hand washing facilities shall be self-contained and have access to a fresh water compartment and a wastewater compartment. A sign shall be posted near the hand washing apparatus to advise users that the water is not for drinking.

(l) Portable hand washing facilities shall be provided in a proportion of one hand wash facility to every ten portable restrooms required, ~~and shall be provided at special events and remote locations where food is served or picnic areas are provided.~~ With the exception of locations where food is served, hand sanitizers may be used in lieu of hand washing facilities, ~~at the option of the applicant.~~

(m) The number and location of portable restrooms and hand washing facilities for food handlers at special events shall be based on this section or applicable local or state food hygiene requirements, whichever is greater.

(n) An applicant for a stationary holding tank installation permit shall provide to the ~~county health~~ department a copy of a contract with a permitted disposal company that states the holding tank capacity and the scheduled pumping frequency.

(o) All stationary holding tanks shall be constructed in compliance with the construction standards for treatment receptacles in Section Rule 64E-6.013, F.A.C.

(p) Portable holding tanks shall meet the following requirements:

1. The total effective capacity of the portable holding tank shall not exceed 300 gallons;
2. No portion of the portable holding tank shall be more than 12 inches below the surface of the ground;
3. The portable holding tank shall be used for a construction site or temporary use;
4. The portable holding tank shall be rigid, water-tight, impervious;
5. Polyethylene holding tanks shall meet the requirements of International Association of Plumbing and Mechanical Officials (IAPMO) PS 1-93, Paragraph 5.4 "Polyethylene", herein incorporated by reference. Where the requirements of IAPMO PS 1-93 Paragraph 5.4 "Polyethylene" conflict with the standards in this section, the standards in this section shall apply;
6. Multiple portable holding tanks, if used, shall be connected in such a manner that leakage from one tank will not result in the loss of any liquid from any other tanks;
7. Each portable holding tank shall ~~have listed in a conspicuous place~~ be labeled with the name and telephone number of the servicing company; and
8. The portable holding tank shall be removed from the site when no longer needed;
9. The portable holding tank servicing company shall maintain a list of the location and the installation or placement date of all portable holding tanks placed into service. The list shall be made available to the ~~Department~~ upon request.

(q) Portable or stationary holding tanks shall be serviced at least weekly to prevent insanitary conditions.

(r) ~~The Table PR-III shall be used to determine the~~ required total capacity of portable or stationary holding tanks serving a remote location, construction site, or special event shall be based on 250 gallons per person per 8-hour shift provided the holding tank is emptied once per week. The capacity for holding tanks serving other events shall be based on the estimated daily sewage flow from Table I in 64E-6.008, F.A.C., multiplied by the number of days per week that the establishment will be in use. The volume of the holding tank values from table PR-III shall be adjusted proportionately to the number of times per week the holding tank will be emptied.

(s) Application for a service permit shall be made to the ~~county health~~ department on Form DH 4012, "Application for Septage Disposal Service Permit, Temporary System Service Permit, Septage Treatment and Disposal Facility, Septic Tank Manufacturing Approval". The following must be provided for the evaluation prior to issuance of a service permit:

1. The permanent location and address of the business where operations will originate and where equipment is to be stored ~~when it is not in use.~~

2. The proposed disposal method and the site to be used for disposing of the waste.

(t) The following equipment, maintenance and service requirements shall be complied with:

1. Vehicles used for servicing portable restrooms shall be provided with two separate tanks or a dual compartment tank, ~~One~~ one compartment or tank ~~shall be used for receiving and removing wastes and the other shall be used for clean water storage and shall have adequate capacity to allow proper cleaning of each serviced unit. The waste tank on all vehicles servicing portable~~

restrooms or portable or stationary holding tanks shall be equipped with a suction hose having a cut-off valve not more than 36 inches from the intake end.

2. Standby portable restroom and holding tank service equipment shall be available ~~for use during breakdowns or emergencies.~~ If equipment from another approved service is to be used ~~for stand-by purposes~~, a written agreement between the services must be provided to the ~~county health~~ department.

3. The waste storage compartment ~~of a tank truck~~ shall be maintained ~~as necessary~~ to prevent the creation of sanitary nuisance conditions.

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

(v) When disposed of in a department approved lime stabilization facility, the portable restroom, portable hand washing and portable or stationary holding tank wastes shall be blended with domestic septage at a rate of no less than 3 parts septage to 1 part holding tank, portable restroom or portable hand washing facility waste prior to lime stabilization. Treatment and disposal shall comply with the provisions of subsection paragraphs 64E-6.010(6)(7)(a)-(u), F.A.C.

(w) Contents of portable restrooms and portable or stationary holding tanks shall be removed in their entirety when pumped.

(x) Persons who own portable restrooms but are not a permitted service company shall maintain a service contract with a permitted service company ~~for every portable restroom in use~~. The name and telephone number of the owner shall be displayed on ~~every~~ each portable restroom ~~in use~~.

(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) All materials incorporated herein that are not available at flrules.org may be reviewed at the Bureau of Environmental Health, 4025 Esplanade Way, Tallahassee, Florida 32399-1710. All materials incorporated herein may be obtained from the Bureau of Onsite Sewage Programs at www.MyFloridaEH.com or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida 32399-1713.

Rulemaking Authority 381.006(6), (14), (15), 381.0065(3)(a), 489.553(3) FS. Law Implemented 381.006(6), 381.0065, 386.041 FS. History--New 5-24-04, Amended 11-26-06, 6-25-09, 4-28-10, \_\_\_\_\_.

#### 64E-6.011 Abandonment of Systems.

(1) Whenever the use of an ~~on-site sewage treatment and disposal~~ system is discontinued following connection to a sanitary sewer or discontinuing the use of a septic tank and replacement with another septic tank, the system shall be abandoned within 90 days and any further use of the system for any purpose shall be prohibited. However, if the Department of Environmental Protection or its designee approves ~~the use of the retention tank where~~ when the tank is to become ~~an integral~~ part of a sanitary sewer ~~system~~ or stormwater management system, the ~~septic~~ tank need not be abandoned.

(2) The following actions shall be taken, in the order listed, to abandon an ~~on-site sewage treatment and disposal~~ system:

(a) Property owner or agent shall apply for a permit from the department to abandon the existing onsite sewage system and submit the required fee. Upon receiving a permit:

(b) The tank shall be pumped out by a permitted septage disposal company who shall provide a receipt or a written certification to the department. Alternatively, if the tank is empty and dry at the commencement of the abandonment, a written statement to that effect by the septage disposal company or the contractor performing the abandonment shall be provided to the department.

(c) The bottom of the tank shall be opened or ruptured, or the entire tank collapsed ~~so as to prevent the tank from retaining water~~, and

(d) The tank shall be filled with clean sand or other suitable material, and completely covered with soil.

(3) ~~(e)~~ An inspection of the system abandonment shall be conducted by the department or by the local utility or plumbing authority performing the system abandonment at a point in the abandonment process specified in the permit.

(4) ~~(3)~~ The permitting provisions of paragraph 64E-6.011(2)(a), F.A.C., are not required if a local utility or local plumbing authority performs a system abandonment program which requires the completion of those steps listed in paragraphs 64E-6.011(2)(b), (c), (d), and (3) ~~(e)~~, F.A.C. If the system abandonment is performed by a local utility or local plumbing authority, the local utility or local plumbing authority performing the abandonment program shall maintain a log of all inspections performed and shall forward the log to the ~~department~~ County Health Department on a monthly basis.

(5) ~~(4)~~ A septic tank serving a single family residence may, at the owner's discretion, be converted into a cistern pursuant to ~~the following procedures:~~



- (a) The applicant shall obtain a system abandonment permit from the ~~county health~~ department.
- (b) The permit application shall specify the intended use of the abandoned septic tank.
- (c) The activities related to abandoning the ~~onsite sewage treatment and disposal~~ system shall not create a sanitary nuisance.
- (d) The septic tank shall be disconnected from the drainfield and from the building sewer pipe.
- (e) All work to disconnect, clean and sanitize the septic tank shall be conducted by a registered ~~or master~~ septic tank contractor or a state-licensed plumber or by the owner of the owner-occupied single family residence being served ~~by the septic tank~~.
- (f) All septage, wash water, and other liquids removed from the tank shall be removed and handled as septage ([Section Rule 64E-6.010, F.A.C.](#)) by a DOH-licensed septage disposal service ~~and disposed of at a DEP-regulated wastewater treatment facility~~.
- (g) The ~~health~~ department shall inspect the tank once it is disconnected, emptied, cleaned, disinfected and filled with water. The inspection shall determine whether all of the following conditions have been met:
1. The tank has been disconnected from the drainfield and the building sewer.
  2. The tank is full of water within 12 inches of the top of the tank.
  3. The clarity of the water is such that a Secchi disk is visible at the bottom of the tank.
  4. The pH of the water in the tank is between 6.0 and 8.0.
  5. The free chlorine residual of the water in the tank is  $\leq 1.0$  ppm.
  6. The total coliform count is  $\leq 1000$  cfu per 100 ml.
  7. The fecal coliform count is  $\leq 200$  cfu per 100 ml.
  8. No sanitary nuisance condition exists on the property related to the abandonment activities.
- (h) ~~One inspection is included in the abandonment permit fee.~~ The applicant shall pay a reinspection fee for any additional inspection visits necessary until ~~all of the criteria in subparagraphs 64E-6.011(4)(g)1. through 8. F.A.C., are met and final approval of the abandonment is granted by the county health department.~~
- (i) The applicant shall be responsible for all required laboratory fees. All sampling shall be conducted by ~~county health~~ department staff ~~during the final inspection~~.
- (j) The septic tank shall be converted and inspected within 90 days after connection ~~of the building plumbing to the sanitary~~ sewer.
- (k) ~~The tank shall not be connected to any irrigation components nor shall the water used for irrigation purposes until final approval of the abandonment has been granted by the county health department.~~
- ~~(l)~~ Upon final approval of the abandonment, use of the tank or the drainfield for sewage storage, treatment or disposal is prohibited and constitutes a nuisance injurious to health as defined by Section 386.041, F.S. [Water](#)
- ~~(m)~~ Upon final approval of the abandonment, the water collected in the tank shall be utilized for non-potable, irrigation purposes only.

*Rulemaking Authority 381.0065 FS. Law Implemented 381.0065, 381.0066, 386.002, 386.003, 386.041 FS. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.53, Amended 3-17-92, 1-3-95, Formerly 10D-6.053, Amended 6-18-03, 6-25-09, 7-16-13, \_\_\_\_.*

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

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

(1) Aerobic systems designed to treat up to 1500 gallons of sewage waste per day shall be listed by a third party certifying program approved by the ~~Bureau of Environmental Health~~ [State Health Office](#). Aerobic treatment units shall be in compliance with standards for Class I systems as defined by ANSI/NSF International Standard Number 40, revised July 2000, herein incorporated by reference. An approved third party certifying program shall comply with the following provisions in order for units which it has certified to be approved for use in Florida:

- (a) Be accredited by the American National Standards Institute.
  - (b) Have established procedures which send representatives to distributors in Florida on a recurring basis to conduct evaluations to assure that distributors of certified aerobic units are providing proper maintenance, have sufficient replacement parts available, and are maintaining service records.
  - (c) Notify the ~~Bureau of Environmental Health~~ [department](#) ~~State Health Office~~ of the results of monitoring visits to manufacturers and distributors within 60 days of the conclusion of the monitoring. Approved distributors must be reported by the manufacturer to the certifying agency.
  - (d) Submit completion reports on testing for review by the ~~Bureau of Environmental Health~~ [State Health Office](#).
  - (e) Provide a registered certification mark or seal which must be affixed in a conspicuous location on the units it has certified. This mark or seal will alert persons evaluating or maintaining the unit that the unit is in compliance with ANSI/NSF Standard 40.
- (2) The following additional requirements shall ~~also~~ apply to ~~the construction, design, and operation of~~ aerobic treatment units treating 1500 gallons per day or less:

(a) An appropriate mechanism shall be provided to make access ports vandal, tamper, and child resistant. Acceptable protection of openings shall consist of one or more of the following methods as specified by the tank manufacturer installed in a manner that requires more than 65 pounds of force to produce an opening allowing the passage of a 4-inch sphere:

1. A padlock.
2. An "O" ring with twist lock cover requiring special tools for removal.
3. Covers weighing 65 pounds or more, net weight.
4. Screws or other fasteners or devices that require a specific tool to remove~~A hinge and hasp mechanism which uses stainless steel or other corrosion-resistant fasteners to fasten the hinge and hasp to the lid and tank~~ for fiberglass, metal, or plastic lids.

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

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

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

(e) Minimum required treatment capacities ~~ies~~ for aerobic treatment units systems serving any structure, building or group of buildings shall be no less than the based-on estimated daily sewage flows for commercial establishments and no less than the estimated daily sewage flow plus 200 gallons per day for residential establishments, as determined from Table IV.

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
4	2251-3300	600

For each additional bedroom or each additional 750 square feet of building area, or fraction thereof, treatment capacity shall be increased by 100 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
701-800	800
801-900	900
901-1000	1000
1001-1200	1200
1201-1500	1500

Footnotes to Table IV:

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

(f) 2. These figures assume that the aerobic system will be treating domestic strength sewage with CBOD<sub>5</sub> and suspended solids values typically not exceeding 300 and 200 milligrams per liter, respectively. For wastewaters with higher CBOD<sub>5</sub>, higher than 300 mg/L and suspended solids higher than 200 mg/L, values, or for facilities that exhibit short-term hydraulic surge conditions, additional treatment or pre-treatment facilities shall be required when specified by design engineers, plant manufacturers, or by the DOH county health department.

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

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

(i) (h) Units meeting Class I Standards as specified by ANSI/NSF Standard 40 shall receive consideration, via the variance review process, for use where daily domestic sewage flow limitations of Rule 64E-6.005, F.A.C., are exceeded or where a high level



of sewage treatment is warranted. Also, for For Class I units where slightly limited soil textures exist on a site, the required drainfield size may be reduced by 25 percent from the requirements in subsection 64E-6.008(5) or paragraph 64E-6.009(3)(d), F.A.C.

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

(k) ~~(j)~~ Manufacturers shall provide a listing of approved maintenance entities they have authorized to provide service in the state and shall demonstrate that the entire state is covered by at least one maintenance entity. A system using a manufacturer's unit shall not be approved in the state if the manufacturer cannot demonstrate that there are maintenance entities to service it.

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

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

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

1. Initially ~~be~~ for a period of at least 2 years and ~~subsequent maintenance agreement~~ renewals shall be for at least 1 year periods for the ~~system~~ life of the system.
2. Provide that a maintenance entity which desires to discontinue the provision of maintenance services, notify in writing, the property owners and lessees and the ~~DOH county health~~ department at least 30 days prior to discontinuance of service.
3. Provide that, if a private maintenance entity discontinues business, property owners who have previously contracted with the discontinued maintenance service shall, within 30 days of the service termination date, contract with an approved maintenance service and provide the ~~DOH county health~~ department a copy of the newly signed maintenance agreement.
4. Provide that each aerobic unit is inspected by an approved maintenance entity at least two times each year. Aerobic treatment units serving commercial establishments shall be inspected four times per year. The maintenance entity shall furnish to the ~~DOH county health~~ department a listing of all aerobic units inspected or serviced during the respective reporting period. As a minimum, reports shall indicate the system owner or building lessee, the street address of the system, the date of system inspection or service and a statement as to the maintenance or service performed. The maintenance entity shall also include a list of the owners who have refused to renew their maintenance agreement.

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

(3) An aerobic treatment unit used for treating domestic or commercial sewage flows in excess of 1500 gallons per day shall be designed and certified by an engineer ~~licensed in the State of Florida~~. The design shall include an assessment of wastewater strength. The certification shall state that the unit is capable of consistently meeting, ~~at minimum~~, secondary treatment standards established by ~~Department of Environmental Protection~~ DEP in Rule 62-600.420, F.A.C. In addition, the following requirements shall ~~also~~ be met:

- (a) The drainfield system shall meet minimum setback and elevation requirements specified by this ~~chapter~~ rule.
- (b) The owner or lessee of a system shall comply with the applicable safety, maintenance and operational requirements of subsection 64E-6.012(2), F.A.C. Unless the system owner or lessee is a state licensed wastewater treatment plant operator, the owner or lessee shall be required to have a system maintenance agreement with a permitted aerobic unit maintenance entity which has at least a Class D state certified operator who has been certified under the provisions of Chapter 61E12-41, F.A.C.
- (c) A permitted aerobic unit maintenance entity with a minimum Class D certified operator, or a system owner or lessee holding at minimum a Class D certification under the provisions of Chapter 61E12-41, F.A.C., shall collect effluent quality samples and submit the sample analysis reports to the ~~DOH county health~~ department. Effluent quality samples for CBOD<sub>5</sub>, suspended solids and fecal coliform shall be collected at least semi-annually and ~~such samples shall be~~ analyzed by a department-approved laboratory.
- (d) Written sample analysis reports shall be submitted to the ~~DOH county health~~ department by no later than the 15th of the next month following the semi-annual sampling period. However, if the sample analysis for CBOD<sub>5</sub> or suspended solids exceeds secondary treatment standards by more than 100 percent, the maintenance entity or certified operator shall notify the ~~DOH county~~

health department by telephone or in person within 24 hours after receipt of sample analysis results.

~~(e) The DOH county health department shall monitor the maintenance and performance of aerobic treatment units as required by paragraph 64E-6.012(2)(m), F.A.C.~~

(4) No aerobic treatment unit shall be serviced or repaired by a person or entity engaged in an aerobic treatment unit maintenance service until the service entity has obtained an annual written permit ~~issued on Form DH 4013~~ from the ~~DOH county health department~~ in the county where the service company is located. Each service entity shall employ at least one plumbing contractor licensed under Section 489.105(3)(m), F.S., septic tank contractor registered under Part III of Chapter 489, F.S., or a state-licensed wastewater treatment plant operator, who is responsible for maintenance and repair of all systems under contract. Application for a Maintenance Service Permit, Form DH 4066, ~~###02/40~~, herein incorporated by reference, [available at https://flrules.org/gateway/reference.asp?No=Ref-####](https://flrules.org/gateway/reference.asp?No=Ref-####), shall be made to the ~~DOH county health department~~ ~~department with the required fee~~ and shall contain the following information:

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

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

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

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

~~(5) (6) All materials incorporated herein that are not available at flrules.org may be reviewed at the Bureau of Environmental Health, 4025 Esplanade Way, Tallahassee, Florida 32399-1710. All materials incorporated herein may be obtained from the Bureau of Onsite Sewage Programs at www.MyFloridaEH.com or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida 32399-1713.~~

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

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

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

(a) Onsite wastewater treatment receptacles include: septic tanks, graywater tanks, laundry tanks, grease interceptors, pump tanks, aerobic treatment unit tanks, tanks containing treatment media and stationary holding tanks ~~not described in paragraph 64E-6.0101(7)(p), F.A.C.~~ Treatment receptacles shall be constructed of concrete, fiberglass or polyethylene.

(b) Design and testing of concrete treatment receptacles:

1. Structural design of receptacles shall be by calculation or by performance.

2. Structural design shall be verified by actual vacuum load or hydrostatic test in accordance with the department's policy for Test Requirements for Structural Proofing, August 16, 2005, herein incorporated by reference, [available at https://flrules.org/gateway/reference.asp?No=Ref-####](https://flrules.org/gateway/reference.asp?No=Ref-####). The vacuum test shall be followed by a water tightness test.

3. Treatment receptacles shall be watertight as defined in ASTM C1227 98, Standard Specification for Precast Concrete Septic Tanks, paragraph 9.2., herein incorporated by reference. ASTM C1227 98, paragraph 9.2.2, herein incorporated by reference, shall be modified to read as follows: Water tightness testing – Fill the receptacle with water to the invert of the outlet and let stand for 24 hours. Refill the receptacle. The receptacle is approved as water tight if the water level is held for one hour.

4. Manufacturers may use calculations provided by the design engineer in lieu of proof testing for receptacles using reinforcement bars for structural strength and having a wall thickness of 5 inches or greater. Design by calculation shall be completed using the Strength Design Method (ultimate strength theory) or the Alternate Design Method (working stress theory) outlined in the American Concrete Institute (ACI) publication ACI 318-99, Building Code Requirements for Structural Concrete (318-99) and Commentary (318R-99), herein incorporated by reference. The Strength Design Method is outlined in Chapter 9 and the Alternate Design Method is in Appendix A. Equation (9-1), herein incorporated by reference, shall be modified to read as follows:  $U=1.4L + 1.4D$ . When the Strength Design Method is used to verify satisfaction of the required strength a strength reduction factor of 0.90 shall be applied per ACI 318-99 paragraph 9.3.2.1.

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

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

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

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

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

(d) Testing shall be conducted in the presence of an engineer ~~licensed in the state of Florida~~, or by an employee of the department that has been authorized by the ~~State Health Office~~ Bureau of Environmental Health to perform or witness receptacle testing. Test results shall be certified by the witnessing engineer or department employee.

(e) ~~Treatment receptacles shall have a one-piece lid or a lid with a maximum of three sections, unless the receptacle cover is monolithically integrated into the receptacle design.~~ Receptacle lids for non-traffic residential installations shall be either:

1. ~~Designed for a dead load of 12 inch earth cover with a dry soil density of 100 pounds per cubic foot or a live load of two concentrated loads of 1750 pounds at a 60 inch spacing or a concentrated load of 1750 pounds located at the center of the lid, whichever provides the greater shear and moment stresses to the lid. The required strength shall be per ACI 318-99, equation (9-1) as follows:  $U=1.4D + 1.7L$ . Structural integrity proof test or calculations for the 12 inch overburden earth load and the 1750 pound concentrated loading shall be provided. Designs sealed by an engineer ~~licensed in the state of Florida~~ and approved by the department shall be acceptable for design proof of receptacle lid designs.~~

2. ~~Built according to the following standards: Receptacles with capacities of 1200 gallons or less shall have lids of concrete with a minimum thickness of 3 inches when precast and 4 inches when poured in place. When capacities exceed 1200 gallons, the lids shall be precast with a minimum thickness of 4 inches. Lids shall be reinforced with 3/8 inch steel reinforcement rods on 6-inch centers in each direction.~~

(f) Receptacles and receptacle lids for traffic installations ~~or where a receptacle will be placed with greater than 48 inches of soil over the top of the receptacle shall be designed, signed and sealed by an engineer and approved by the department licensed in the state of Florida.~~ Whenever vehicular traffic is anticipated to cross over the receptacle, traffic lids shall be installed with manhole covers to finished grade. Traffic receptacles and lids shall be designed in accordance with ASTM C 890-91 (Reapproved 1999), Standard Practice for Minimum Structural Design Loading for Monolithic or Sectional Precast Concrete Water and Wastewater Structures, herein incorporated by reference, for the appropriate loading. ~~Application of paragraph 5.2.4 of ASTM C-890-91 (Reapproved 1999), shall be at the discretion of the design engineer.~~

(2) Onsite wastewater treatment receptacle design requirements. The following details shall be incorporated into the design:

(a) Septic tanks and graywater tanks shall have multiple compartments, or single compartment tanks shall be placed in series to achieve the required effective capacity. Grease interceptors, laundry tanks, pump tanks, aerobic treatment unit tanks and retention tanks shall be either multi-compartment or single compartment tanks. All receptacle stiffening members such as ribs shall be a homogeneous integral part of the structure. When slide-in type compartment walls are proposed, the structural testing for such tanks shall be conducted without the slide-in wall in place. There shall be a maximum of two horizontal seams between the topside of the bottom of the receptacle and the underside of the lid. There shall be no vertical seams. Except as noted in this paragraph, the first chamber of a dual compartment septic or graywater tank or the first tank of single compartment tanks in series shall have a minimum effective capacity of at least 2/3 of the total required effective capacity. The second single compartment tank or chamber of a multi-compartment tank shall have a minimum effective capacity of at least 1/5 of the total required effective capacity. The combined effective capacities of the first and second chambers or the first and second single-compartment tanks shall equal or exceed the total required effective capacity. Systems with daily flows in excess of 3500 gallons per day may utilize two tanks to achieve the total required effective capacity, provided that the first tank shall provide no less than 1/2 of the total required effective capacity. The second tank shall provide no less than 1/5 of the total required effective capacity and the total effective capacities of the two tanks combined shall be no less than the total required effective capacity.

(b) The liquid depth of compartments for septic tanks and grease interceptors shall be at least 40 inches. The liquid depth of compartments for graywater tanks, laundry interceptors and pump tanks shall be at least 30 inches. Liquid depths greater than 84 inches shall not be considered in determining the effective capacity.

(c) A minimum free board or airspace of 15 percent by volume of the effective capacity of all blackwater, graywater and

laundry tanks shall be provided. The volume of risers above the liquid level line cast as an integral part of the tank may be included as free-board or airspace.

(d) The inlet invert of septic tanks, graywater tanks and laundry tanks shall enter the tank 1 to 3 inches above the liquid level of the tank. A vented inlet tee, vented sweep or a baffle may be provided at the discretion of the manufacturer to divert the incoming sewage. The inlet device, if utilized, shall have a minimum diameter of 4 inches and shall not extend below the liquid surface more than 33 percent of the liquid depth.

(e) In septic tanks, graywater tanks and laundry tanks, a minimum 4 inch diameter vented outlet tee, sweep or baffle shall extend below the liquid level of the tank so that the invert level of the outlet device is a distance not less than 30 percent nor greater than 40 percent of the liquid depth. The outlet device shall extend at least 4 inches above the liquid level. The submerged intake orifice of any outlet fixture not incorporating an approved outlet filter device shall be provided with an approved solids deflection device to reduce, by a minimum of 90 percent, the intake area of the outlet fixture exposed to the vertical rise and fall of solid particles within the tank. Turning the intake orifice of an outlet tee or sweep 90 degrees from the vertical will satisfy the solids deflection device requirement.

(f) The inlet and outlet devices shall be located at opposite ends of the receptacle so as to be separated by the maximum distance practical and shall be in accordance with ASTM C 923-98, Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and Laterals, herein incorporated by reference. The head pressure noted in paragraph 7.1.1 of ASTM C 923-98 shall be reduced from 23 feet to 10 feet. Inlets and outlets on the sides of any treatment receptacle must be located no more than 12 inches from the end of the receptacle.

(g) Compartment walls shall be designed to withstand the stresses induced by pumping out either of the compartments. There shall be no relief holes. However, the compartment walls may be inserted in grooves without grouting, fiberglassing or otherwise permanently attaching in place, unless such attachment is required for proving structural integrity of either the receptacle or compartment wall.

(h) Sewage flow between the first and second chamber of a multi-chamber receptacle shall interconnect utilizing either a minimum 4 inch diameter hole or equivalent size slot in the wall or with a minimum 4 inch diameter vented and inverted U-fitting or a tee. Receptacles in series shall interconnect utilizing a minimum 4 inch diameter vented, inverted U-fitting or a tee. The outlet device or slot shall extend below the liquid level of the receptacle so that the invert level is located not less than 30 percent nor greater than 40 percent of the liquid depth.

(i) Joints of receptacles, including mid-seams, risers, and lids shall be sealed using a bonding compound that meets ASTM C 990-96, Standard Specification for Joints for Concrete Pipe, Manholes, and Precast Box Sections using Preformed Flexible Joint Sealants, herein incorporated by reference.

(j) The State Health Office Bureau of Environmental Health's designated approval number for the receptacle, and the effective capacity of the receptacle in gallons shall be cast or stamped into the wall or permanently stenciled or decaled onto the wall at the inlet end, to begin within 6 inches of the top of the wall. All identifying marks shall be inscribed or affixed at the point of manufacture only. All information supplied in the legend shall be provided with a minimum of two inch high lettering.

(k) Each compartment shall have access using manholes, with each manhole having a minimum area of 225 square inches. Manholes shall be located so as to allow access to the inlet and outlet devices. A minimum 6-inch diameter opening shall be placed at the inlet and outlet ends of the lid if a minimum 225 square inch access port is placed in the middle of the lid. The access manhole over the inlet and outlet shall extend to within 8 inches of finished grade. If a riser is used, and if the riser access lid opens directly to the receptacle interior, joints around the riser and receptacle shall be sealed and made watertight as specified in paragraph 64E-6.013(2)(i), F.A.C., to prohibit intrusion of ground water into the receptacle. For multi-compartment receptacles or receptacles in series, manholes shall extend to within 8 inches of finished grade over the first compartment inlet and the last compartment outlet. An appropriate mechanism shall be provided to make access manholes vandal, tamper, and child resistant. Acceptable protection of openings shall consist of one or more of the following methods as specified by the manufacturer and shall be installed in a manner that requires more than 58 pounds of force to produce an opening sufficient to allow the passage of a 4-inch diameter sphere:

1. A padlock.
2. A twist lock cover requiring special tools for removal.
3. Covers weighing 58 pounds or more, net weight.
4. For fiberglass, metal or plastic lids, screws or other fasteners or devices that require a specific tool to remove. A hinge and hasp mechanism which uses stainless steel or other corrosion-resistant fasteners to fasten the hinge and hasp to the lid and receptacle for fiberglass, metal or plastic lids.

(l) Receptacle designs that specify a monolithic compartment wall from the bottom of the receptacle up to the invert of the pass-through orifice and a drop-in section for the upper portion of the wall shall be approved for both single and multi-compartment use.

(m) Treatment receptacles shall have a one-piece lid or a lid with a maximum of three sections. All lids shall be designed by Licensed Engineers in accordance with paragraphs 64E-6.013(1)(c) and (f), F.A.C., and approved by the Department.

(3) Onsite wastewater treatment receptacle design approval. All onsite wastewater treatment receptacles distributed in the state shall be approved for use by the department prior to being offered for sale or installed. Such approval shall not be obtained until the

manufacturer of a specific receptacle model has submitted the following:

- (a) Detailed design drawings of the receptacle and lid showing:
  1. Design calculations or proof testing results in accordance with subsection 64E-6.013(1), F.A.C.
  2. Dimensions, including location and size of all inlets, outlets, access hatches, manholes and pass through orifices.
  3. Effective capacity in gallons.
  4. Freeboard or air space in gallons.
  5. Production materials. For concrete receptacles include 28 day compressive strength, in pounds per square inch (psi).
  6. Reinforcing materials. For concrete receptacles, include size and location of all rebar, if any; and fiber reinforcing material size and quantity (in pounds) per cubic yard, if any.
- (b) For concrete receptacles-see subsection 64E-6.013(4)(5), F.A.C.
- (c) For fiberglass and polyethylene receptacles-see subsection 64E-6.013(5)(6), F.A.C.
- (d) Certification that the receptacle has undergone flow testing to confirm the effective capacity, airspace, and water tightness. Flow testing shall be conducted by an engineer ~~licensed in the state of Florida~~, a third-party certified testing laboratory or a ~~Department~~ employee. Test results shall be certified by the engineer, laboratory or state employee.
- (e) Designs shall be submitted to the ~~State of Florida Department of Health, Bureau of Onsite Sewage Programs~~.
- (f) There shall be two receptacle design classifications. The following criteria shall be used for each category:
  1. Category 3 receptacles shall be designed for saturated soil with the saturation at finished grade. The design shall provide for a maximum of 18 inches of saturated soil cover over the top of the receptacle. Soil density shall be 100 pounds per cubic foot. The lateral earth pressure coefficient (K) shall be no less than 0.33.
  2. Category 4 receptacles shall be designed for saturated soil with the saturation at finished grade. The design shall provide for a maximum of 48 inches of saturated soil cover over the top of the receptacle. Soil density shall be 100 pounds per cubic foot. The lateral earth pressure coefficient (K) shall be no less than 0.33. ~~Receptacles designed in accordance with 64E-6.013(1)(f) shall be classified as category 4 receptacles unless the design engineer classifies them as category 3. Where a receptacle will be placed with greater than 48 inches of soil over the top of the receptacle, an engineer licensed in the state of Florida shall design the receptacle for the specific conditions anticipated at the site.~~
- (g) A series of receptacles may be approved by successful demonstration of the largest in a series of receptacles. Approval for inclusion of the receptacles to be considered in a series must be obtained from the ~~state health office~~ Bureau of Environmental Health prior to testing the receptacles. A series is either where only one dimension, this being height, length, or width, is changed or where two dimensions change in the same proportion to offer a different capacity of treatment receptacle.
- (h) The manufacturer shall notify the ~~state health office~~ Bureau of Environmental Health in writing, stipulating the date, time and location of the test, no less than ten working days prior to the receptacle proof testing. The notice shall include the receptacles to be tested. Approval shall not be granted until after successfully passing the required tests, and submitting the testing results.
- (i) The department will issue an approval number to the manufacturer. Form DH 4012, "Application for Septage Disposal Service Permit, Temporary System Service Permit, Septage Treatment and Disposal Facility, Septic Tank Manufacturing Approval", shall be used to apply for manufacturing approval. ~~The form can be obtained from the department.~~

~~(4) Onsite wastewater treatment manufacturer's yearly inspection — Yearly inspection of the manufacturer's facility shall consist of the following:~~

- ~~(a) Verify that the manufacturer has the design mix recorded and in a readily accessible location for the plant operators.~~
- ~~(b) Verify that the production process is recorded and that the operators are following the process.~~
- ~~(c) Verify that the necessary tests are being conducted by a certified testing lab or by a technician certified by the ACI. The preparation of the test specimens shall be performed by certified third party testing laboratory personnel; or manufacturers, or their employees, that have successfully passed the ACI certification program. Each manufacturer shall submit a minimum of three cylinders per year. The specimens shall be taken from a production mix.~~
- ~~(d) Verify that the manufacturer has the proper number of tests for the year and that the results are recorded. Review the results for compliance with the design.~~
- ~~(e) Examine the material stockpiles to ensure that the materials are free from deleterious materials.~~
- ~~(f) Examine the measuring equipment to ensure that the equipment has been calibrated within the last year.~~
- ~~(g) Examine conveyors to insure that material is transported as measured.~~
- ~~(h) Inspect a minimum of five receptacles in the manufacturers' inventory. For different series, a minimum of one receptacle shall be inspected from each series. Report the following unacceptable defects:~~
  - ~~1. Cracks in all interior and exterior surfaces of the receptacles.~~
  - ~~2. Cold joint lines. This is an indication of non-monolithic pours. Examine both the interior and exterior of the receptacle for confirmation of a cold joint that extends across the thickness of the wall.~~
  - ~~3. Evidence of improper steel cover. Rebar and wire mesh shall not be exposed.~~
  - ~~4. Watertight inlets and outlets shall be provided per rule.~~
  - ~~(i) Where cold joint lines that appear to extend through the wall, or cracks in any surface of the receptacle exist, conduct a~~



watertightness test on a maximum of two receptacles per ASTM C 1227-98, Standard Specification for Precast Concrete Septic Tanks, paragraph 9.2. The receptacles shall not be tested until they have cured for 28 days. If there are no indications of cold joint lines that appear to extend through the wall, or cracking of receptacle surfaces, two receptacles shall be tested at random. Record all data and submit results to the department.

(j) Verify that the manufacturer is not relocating the receptacles prior to the receptacle achieving 75% of the design compressive strength. Record how this is accomplished.

(k) Conduct impact hammer tests record data.

(l) Examination of the manufacturer's receipts for material used during the previous year. Receptacle manufacturers shall retain all receipts from the previous year for material used in the manufacture of treatment receptacles and make them available for inspection.

(4) ~~(5)~~ Concrete onsite wastewater receptacles shall be built of precast or poured in place concrete in accordance with ACI 318-99, Building Code Requirements for Structural Concrete (1999) or ASTM C 1227-98, Standard Specification for Precast Concrete Septic Tanks (1998), except as revised herein.

(a) For design and analysis of concrete septic tanks, the publication "Rectangular Concrete Tanks" revised 5th edition (1998), as published by the Portland Cement Association, herein incorporated by reference, may be used at the designer's discretion, ~~herein incorporated by reference~~. When computing length to height and width to height ratios the designer may interpolate between tables for intermediate ratios and values or may use the table and values for the higher ratios.

(b) Temperature and shrinkage crack control in concrete receptacles shall be accomplished by use of steel reinforcing in accordance with ACI 318-99 Chapter 16, or by use of fiber reinforcement. Minimum ratio of vertical and horizontal reinforcement area to gross concrete area shall be 0.0010 for deformed bars or welded wire fabric. Fiber reinforcing materials may be used by the manufacturer to achieve crack control equivalent to the use of deformed bars or welded wire fabric. To be considered equivalent, acceptable fibers shall at least meet or exceed ACI recommendations regarding materials, fiber sizing, and required fiber quantities. Any current or future revisions to the ACI recommendations may be used by the manufacturer, at their option. Materials other than materials recognized by ACI for crack control use will not be acceptable. Minimum reinforcement shall be as outlined in the document entitled Reinforcement Required ~~to Meet paragraph 64E-6.013(5)(b), F.A.C.~~, dated April 15, 2005, herein incorporated by reference, available at <https://flrules.org/gateway/reference.asp?No=Ref-####>.

(c) Concrete mixes shall be in accordance with the Portland Cement Association (PCA) publication entitled PCA Design and Control of Concrete Mixtures, Thirteenth Edition (1994), herein incorporated by reference.

(d) Terminology relating to concrete and concrete aggregates shall be in accordance with ASTM C 125-98, Standard Terminology Relating to Concrete and Concrete Aggregates (1998), herein incorporated by reference.

(e) Concrete aggregates used in the manufacturing of all precast or poured-in-place concrete receptacles for use in onsite sewage treatment and disposal systems shall conform to ASTM C 33-99, Standard Specification for Concrete Aggregates (1999), herein incorporated by reference.

(f) Minimum concrete cover over structural steel reinforcing shall be 3/4 inches. The minimum bend radius for structural reinforcing shall be three times the reinforcing bar diameter.

(g) Temperature and shrinkage crack control steel shall not be exposed. Exposure of fiber reinforcing is acceptable.

(h) Minimum 28-day compressive strength shall be 4000 psi.

(i) Three compressive test cylinders shall be prepared, cured, and tested in accordance with ASTM C 31-98, Standard Practice for Making and Curing Concrete Test Specimens in the Field (1998), herein incorporated by reference, and ASTM C 39-96, Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens (1996), herein incorporated by reference, at least one time every year, or whenever the manufacturer changes the design mix or the manufacturing process.

(j) The bottoms of concrete receptacles shall be monolithic and shall either be an integral part of the walls or shall be sealed to the walls using water-stops cast into the wall and bottom. Receptacle bottoms shall not contain openings for any purpose, for example, to facilitate the removal of rainwater.

(k) Approval of new designs shall not be granted until the following has been completed and submitted ~~as part of the application~~:

1. Establish a design mix and production process. Record the aggregate material, size and gradation; type and strength of cement; cement to aggregate ratios; water to cement ratio; and any other pertinent design data. Record the production process, for example; measuring equipment, batch sizes, mixing sequence, transportation techniques from mixer to mold, pouring techniques with consolidation of concrete methods detailed.

2. Construct three receptacles using the design mix.

3. Test two sets of cylinders from the design mix at 7 days and 28 days.

4. Structural proof test three receptacles to the design strength in accordance with paragraph 64E-6.013(1)(b), F.A.C., for receptacles having an effective capacity of 1350 gallons or less.

5. Structural proof test one receptacle to the design strength in accordance with paragraph 64E-6.013(1)(b), F.A.C., for receptacles having an effective capacity greater than 1350 gallons but not more than 1500 gallons.

6. Structural proof test one receptacle or provide receptacle strength calculations in accordance with paragraph 64E-6.013(1)(b), F.A.C., for receptacles having an effective capacity exceeding 1500 gallons.

7. Verify that the manufacturer is not removing receptacles from the producer's facility prior to the receptacle achieving 75% of the design compressive strength. Record how this is accomplished.

(5) ~~(6)~~ The following structural requirements are applicable to fiberglass and polyethylene receptacles:

(a) Materials and sealants used in the receptacle manufacturing process shall be capable of effectively resisting the corrosive influences of the liquid components of sewage, sewage gases and soil burial. Materials used shall be formulated to withstand shock, vibration, normal household chemicals, deterioration from sunlight and other environmental factors.

(b) Fiberglass receptacles shall be constructed so that all parts of the receptacle meet the following mechanical requirements. A test report from an independent testing laboratory is required to substantiate that individual receptacle designs and material formulations meet these requirements.

1. Ultimate tensile strength – minimum 12,000 psi when tested in accordance with ASTM D 638-98, Standard Test Method for Tensile Properties of Plastics (1998), herein incorporated by reference.

2. Flexural strength – minimum 19,000 psi when tested in accordance with ASTM D 790-98, Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials (1998), herein incorporated by reference.

3. Flexural modulus of elasticity – minimum 800,000 psi when tested in accordance with ASTM D 790-98 Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials (1998), herein incorporated by reference.

4. Not less than 30 percent of the total weight of the fiberglass receptacle shall be fiberglass reinforcement.

5. Internal surfaces shall be coated with an appropriate gel coating or resin to provide a smooth, pore-free, watertight surface.

(c) Polyethylene receptacles shall meet the requirements of International Association of Plumbing and Mechanical Officials (IAPMO) PS 1-93, Paragraph 5.4 "Polyethylene", herein incorporated by reference. Where the requirements of IAPMO PS 1-93 Paragraph 5.4 "Polyethylene" conflict with the standards in this section, the standards in this section shall apply. A test report from an independent testing laboratory is required to substantiate that individual receptacle designs and material formulations meet these requirements.

(d) Approval of new designs shall not be granted until the following has been completed and submitted ~~as part of the application~~:

1. Establish and record a design mix, material specifications, and the production process. ~~Record the material specifications and other pertinent design data. Record the production process, for example; measuring equipment, batch sizes, mixing sequence, transportation techniques from mixer to mold, and spraying techniques.~~

2. Construct three receptacles using the design mix.

3. Test two sets of test strips from the design mix.

4. Structural proof test three receptacles to the design strength per paragraph 64E-6.013(1)(c), F.A.C., for receptacles having an effective capacity of 1350 gallons or less.

5. Structural proof test one receptacle to the design strength in accordance with paragraph 64E-6.013(1)(c), F.A.C., for receptacles having an effective capacity greater than 1350 gallons.

6. Verify that the manufacturer is not planning to relocate the receptacles prior to the receptacle achieving 75% of the design compressive strength. Record how this is accomplished.

~~(6)~~ ~~(7)~~ Grease interceptors are not required for a residence. However, one or more grease interceptors are required where grease waste is produced in quantities that could otherwise cause line stoppage or hinder sewage disposal. The design of grease interceptors shall be based on standards found in this section paragraph (a) below. In addition, the following general requirements found in paragraphs (b), (c), and (d); apply when determining the proper use and installation of a grease interceptor used as a component of an onsite sewage treatment and disposal system.

(a) The inlet invert shall discharge a minimum of 1 2 1/2 inches above the liquid level line and the outlet pipe shall have a vented tee with a minimum diameter of 4 inches that extends to within 8 inches of the bottom of the tank.

(b) Flow from one compartment to the next shall be through a hole or slot similar to 64E-6.013(2)(h) or be through a minimum 4-inch diameter quarter bend fitting, or a combination of lower weir baffle and raised baffle separated by at least six inches horizontally, provided the bottom of the quarter bend, bottom of the raised baffle or top of the hole or slot extends on the inlet side to within 12 inches of the bottom of the receptacle.

~~(c)~~ ~~(b)~~ Interceptors must be located so as to provide easy access for routine inspection, cleaning and maintenance. Manholes shall be provided over the inlet and outlet of each interceptor and be brought to finished grade.

~~(d)~~ ~~(e)~~ Where a grease interceptor is required or used, only kitchen wastewater shall first pass through the interceptor and then be discharged into the first compartment of a septic tank or other approved system.

~~(e)~~ ~~(d)~~ Sizing of grease interceptors shall be based on the equations below. The minimum volume of any grease interceptor shall be 750 gallons ~~and the maximum volume of an individual single grease interceptor chamber shall be 1250 gallons~~. When the

required effective capacity of the grease interceptor is greater than 1250 gallons, installation of multi-chambered grease interceptors or grease interceptors in series is required.

1. Restaurants:  $(\text{number of seats in the dining area } S) \times (\text{gallons of wastewater per seat; use 25 gallons for ordinary restaurant, use 10 gallons for single service article restaurants } GS) \times (\text{number of hours establishment is open } HR/12) \times (\text{loading factor; use 2.0 interstate highways, 1.5 other freeways, 1.25 recreational areas, 1.0 main highways, and 0.75 other roads } LF) = \text{effective capacity of grease interceptor in gallons.}$

$S = \text{number of seats in the dining area.}$

$GS = \text{gallons of wastewater per seat; use 25 gallons for ordinary restaurant, use 10 gallons for single service article restaurants.}$

$HR = \text{number of hours establishment is open.}$

$LF = \text{loading factor; use 2.0 interstate highways, 1.5 other freeways, 1.25 recreational areas,}$

$1.0 \text{ main highways, and } 0.75 \text{ other roads.}$

2. Other type establishments with commercial kitchens:  $(\text{meals prepared per day } M) \times (GM/5) \times (\text{loading factor; use 1.00 with dishwashing and 0.75 without dishwashing } LF) = \text{effective capacity of grease interceptor in gallons.}$

$M = \text{meals prepared per day.}$

$GM = \text{gallons of wastewater per meal; use 5 gallons.}$

$LF = \text{loading factor; use 1.00 with dishwashing and 0.75 without dishwashing.}$

(7) (8) Laundry waste interceptor – when a separate system is installed to accept effluent from a single home washing machine only, the retention tank or interceptor for such system shall meet the following minimum standards:

(a) ~~The~~ have a minimum effective capacity shall be of 225 gallons for establishments with an estimated sewage flow of up to 300 gallons per day and shall be increased by 50 gallons for every 100 gallons of additional daily sewage flow.

(b) The interceptor shall be provided with a vented inlet tee, vented sweep, or a baffle.

(c) The interceptor shall not receive waste flow from kitchen fixtures or be used as a grease trap.

(8) (9) Pump tanks and pumps—when used as part of an onsite sewage treatment and disposal system, the following requirements shall apply to all pump tanks manufactured for use in Florida unless specifically exempted by other provisions of these rules:

(a) Pump tanks shall have a minimum ~~total effective~~ capacity measured from the bottom of the tank to the top of the tank in accordance with Table II. At least 80% of the required ~~total effective~~ capacity shall be contained below the invert of the inlet. Pump levels shall be set as low as practical to preserve as much reserve capacity as possible in the event of pump failure.

(b) ~~Construction standards for pump tanks shall be the same as for treatment receptacles, except that single~~ Single compartment tanks are allowed.

(c) The electrical conduit and effluent dosing pipe shall exit the dosing chamber:

1. Through the tank outlet using plumbing fittings and reducers to produce a watertight seal.

2. When risers are used, the electrical line and the effluent dosing pipe may penetrate the riser wall provided the penetration is above the wet season high water table elevation and there is a soil-tight seal around the penetrations. When the top of the dosing tank is placed more ~~then~~ than 8 inches below the finished grade, risers shall be used to provide access within 8 inches of the finished grade. Where risers are used, risers shall be attached to the tank in accordance with paragraph 64E-6.013(2)(i), F.A.C. The unused tank outlet shall be sealed with a length of capped PVC pipe installed in accordance with paragraph 64E-6.013(2)(f), F.A.C., or

3. Through a 2 to 4 inch access port installed in the tank lid by the manufacturer as approved by the ~~State Health Office~~ Bureau of Environmental Health. After installation the port must be sealed with a bonding compound per paragraph 64E-6.013(2)(i), F.A.C. Unused ports shall be sealed watertight with cement or bonding compound or with a length of capped PVC pipe.

(d) When a pump is used as part of a system, the following conditions shall apply.

1. Pumps used to distribute sewage effluent must be certified by the manufacturer to be suitable for such purpose. The use of a timer as a part of any pump system shall not be allowed unless it is part of a design submitted by an engineer, or master septic tank contractor, and is approved by the department. Pumps shall be designed in accordance with the May, 1985, Sump, Effluent and Sewage Pump Manufacturers Association standards for the purpose intended, herein incorporated by reference.

2. An audio and visual high water alarm shall be provided in a conspicuous location visible by system users to warn of pump failures. If the alarm is located outdoors, the alarm shall be waterproof and specified by the manufacturer for outdoor use.

3. A pump shall be placed in a separate compartment or tank, except when using a pump chamber insert. Except as noted below, any compartment or tank in which a pump is located shall not be considered ~~when determining for~~ total effective capacity of a septic tank.

4. A pump chamber insert may, at the applicant's discretion, be used to house a pump inside a septic tank. If a pump chamber insert is used, it must be approved for use by the ~~State Health Office~~ Bureau of Environmental Health. Approval shall be based on the ability of the pump chamber insert to effectively filter solids from the effluent prior to intake by the pump. The efficiency of solids removal by the pump chamber insert must be at least equal to a currently approved outlet filter device. Pump chamber inserts that do not meet these criteria shall not be approved and shall not be used. The filter device used as part of the pump chamber insert shall be considered to meet the requirement of using an outlet filter device ~~for purposes of subsection 64E-6.008(2), F.A.C.~~ The tank or



compartment used to house the pump chamber insert shall be included in calculating the minimum effective capacity of the tank, subject to the following conditions:

a. When placed in a compartmentalized tank or tanks in series, the pump chamber insert shall be placed in the last chamber or tank. When placed in a single compartment tank, the pump chamber insert shall be placed as close to the outlet side of the tank as possible, ~~but in~~. In no case shall the insert be placed farther than 1/2 the distance to the inlet as measured from the outlet of the tank. The pump chamber insert and filter shall be accessible for routine maintenance. The manufacturer shall provide instructions on how to maintain the filter unit and the insert device.

b. Pump levels shall be set so that the high water alarm is activated when the liquid level of the tank will exceed the height of the inlet invert of the tank. The pump-on switch shall be set to maintain the greatest possible effective capacity of the tank, ~~and in no case shall it be set~~ but no higher than 1 inch below the inlet invert. Floats used for operation of the pump shall be allowed outside the pump chamber insert.

c. The intake openings of the pump chamber insert shall not be located within 12 inches of the bottom of the tank, or within 12 inches of the tank liquid level line of the tank.

d. The volume discharged by the pump shall not exceed 1/4 of the average daily sewage flow in any dose.

e. A pump chamber insert may be used only for lift-dosing applications, ~~shall not be used when the total absorption area for the system is greater than 1000 square feet, or when automatic dosing is required.~~

f. For new system installations, in addition to the requirements above, the total septic tank capacity shall include the required minimum septic tank effective capacity, which shall be contained below the pump-off switch level, plus the pumping tank capacity per Table II, plus the required 15% airspace.

g. For repair installations, in addition to the requirements of subparagraphs a. through e. above, pump chamber inserts shall not be used in an existing septic tank of less than 750 gallons effective capacity. In addition, the minimum tank liquid depth shall be 36 inches below the pump-off switch level and the minimum effective capacity contained below the pump-off switch level shall be within two tank sizes of that required in Section Rule 64E-6.008, F.A.C., ~~Table II~~. The total septic tank capacity shall include the minimum effective capacity within two tank sizes of required tank size, plus dosing capacity, plus dosing reserve capacity equal to the dosing capacity, plus freeboard or air space capacity which is equal to 15% of the minimum effective capacity.

~~(9) (49)~~ Transportation and installation.

(a) Onsite wastewater receptacles shall not be removed from the manufacturer's facility until the compressive strength of the concrete has reached 75% of the design strength. Use of concrete industry published graphs or tables indicating compressive strength vs. concrete age for the design mix are satisfactory proof of strength.

(b) Tanks shall be installed level from end to end and side to side. As used in this context, level includes a slope from the inlet end to the outlet end or from side to side of the tank not exceeding one-half inch over the entire length or width of the tank. The tank shall not be approved with any pitch upward from the inlet end to the outlet end of the tank.

(c) If a pumping device has been placed in the building sewer, an inlet device shall be used.

(d) Cast in place tanks or tanks manufactured with water stops below the invert of the outlet, and tanks with seams below the invert of the outlet shall be watertightness tested in accordance with ASTM C 1227-98, Standard Specification for Precast Concrete Septic Tanks, paragraph 9.2.2, after installation in the field.

(e) The excavation for the installation of a wastewater receptacle shall be level and free of debris and rocks that could damage the receptacle or prevent proper leveling, backfilling or compaction. Backfill material shall be free of rocks and debris. ~~The installer shall refer to the receptacle manufacturer's installation instructions to prevent the receptacle from settling or floating or from being damaged or distorted.~~ Tanks shall be installed in accordance with the manufacturer's instructions.

~~(10) (44)~~ Repair of receptacles – Repairs shall be allowed for receptacles prior to shipment per ASTM, ACI, PCA and National Precast Concrete Association (NPCA), Septic Tank Manufacturing Best Practices Manual (1998), standards and publications. Tanks damaged after they leave the manufacturer's facility may be repaired for the following defects:

~~(a) C~~ chips and cracks that occur above the invert of the outlet and:

~~(b) C~~ chips that occur below the outlet invert of the outlet, provided that if such chips they do not penetrate more than 1/3 of the wall or bottom thickness.

~~(11) (42)~~ All materials incorporated herein that are not available at flrules.org may be reviewed at the Bureau of Environmental Health, 4025 Esplanade Way, Tallahassee, Florida 32399-1710. All materials incorporated herein may be obtained from the Bureau of Onsite Sewage Programs at www.MyFloridaEH.com or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida 32399-1713.

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#### 64E-6.014 Construction Standards for Drainfield Systems.

(1) ~~Distribution box—where distribution boxes are used for distributing sewage from the septic tank or other waste receptacle to~~

the drainfield lines, the following requirements shall be adhered to:

- (a) Distribution boxes shall be watertight, constructed of durable materials, have adequate structural strength, and be of sufficient size to accommodate the required number of drain pipe lines.
- (b) Each drainfield line shall be individually connected ~~individually~~ to the box.
- (c) The invert of the inlets to the box shall be at least 1 inch above the invert of the outlets. The invert of all outlets shall be level with respect to each other.
- (d) The distribution box shall be built as a separate unit from the septic tank and shall be set level on solid ground or in mineral aggregate.
- (2) ~~Header pipe—header pipe, when used, shall be installed in compliance with the following requirements:~~
- (a) ~~When using header pipes, Corrugated or smooth wall fittings (elbows, tees and crosses) shall be acceptable for gravity flow headers. Header pipe interiors shall be smooth. Header pipe shall have a minimum inside diameter of 4 inches for gravity flow applications. Header pipe shall not be perforated. The header pipe shall be laid level with direct connections to each drainfield line and the septic tank outlet pipe. When installed in a drainfield which uses mineral aggregate, the header pipe shall be encased in mineral aggregate, and shall be included as part of the drainfield area. Gravity flow header pipes, when installed within the mineral aggregate drainfield, may be non-watertight but shall be soil tight. Snap connections are acceptable. On non-mineral aggregate systems, header pipe must be supported by soil. All connections shall be such that all joints or fittings are firmly connected to pipes. When a drainfield system is a pumped system, the header pipe and fittings shall be smooth-walled and watertight. Where the header pipe is not within the absorption surface area it shall not be included in drainfield size calculations, but shall be considered part of the system. The header pipe shall be designed to distribute effluent as uniformly as practical to each individual drainline and shall be supported so that the header is laid level. Pipe which connects the septic tank outlet to the header pipe or a distribution box shall comply with the strength and material standards for header pipe as specified in this subsection. Header pipe shall meet one or more of the following requirements:~~
- (a) ~~1.~~ ASTM D 3034-98, Standard Specification for Type PSM Poly (Vinyl Chloride)(PVC) Sewer Pipe and Fittings (1998), herein incorporated by reference.
- (b) ~~2.~~ ASTM D 2729-96 Standard Specification for Poly (Vinyl Chloride)(PVC) Sewer Pipe and Fittings (1996), herein incorporated by reference.
- (c) ~~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.
- (d) ~~4.~~ ASTM 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.
- (e) ~~5.~~ ASTM F 810-99, Standard Specification for Smoothwall Polyethylene (PE) Pipe for Use in Drainage and Waste Disposal Absorption Fields (1999), 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.
- (b) ~~Corrugated or smooth wall fittings (elbows, tees and crosses) shall be acceptable for gravity flow headers. Header pipe interior shall be smooth. Header pipe shall have a minimum inside diameter of 4 inches for gravity flow applications. Header pipe shall not be perforated.~~
- (c) ~~The header pipe shall be laid level with direct connections to each drainfield line and the septic tank outlet pipe. When installed in a drainfield which uses mineral aggregate, the header pipe shall be encased in mineral aggregate, and shall be included as part of the drainfield area. Gravity flow header pipes, when installed within the mineral aggregate drainfield, may be non-watertight but shall be soil tight. Snap connections are acceptable. On non-mineral aggregate systems, header pipe must be supported by soil. All connections shall be such that all joints or fittings are firmly connected to pipes. When a drainfield system is a pumped system, the header pipe and fittings shall be smooth-walled and watertight. Where the header pipe is not within the absorption surface area it shall not be included in drainfield size calculations, but shall be considered part of the system. The header pipe shall be designed to distribute effluent as equally as practical to each individual drainline and shall be supported so that the header is laid level.~~
- (d) ~~Pipe which connects the septic tank outlet to the header pipe or a distribution box shall comply with the strength and material standards for header pipe as specified in this subsection.~~
- (3) ~~Low Pressure dosing—where~~ Where the total required area of drainfield is greater than 1000 square feet or where the applicant proposes to use low-pressure dosing, an automatic dosing device discharging into a low-pressure distribution network consisting of 2 inch or smaller diameter schedule 40 PVC or equivalent ~~equal~~ pipe with 1/2 inch or smaller diameter drilled holes shall be used. All piping shall use solvent welded connections or equivalent ~~equal~~ throughout to prevent dislocation of connections under pressure. The network shall be designed for equal distribution of effluent. For the purposes of this section, equal distribution shall mean that the flow from the least effective hole in the network shall deliver no less than 75% of the flow from the most effective hole. The selected pump capacity (as measured in Gallons Per Minute) versus total dynamic head shall be indicated on a

pump curve and shall be shown by calculation to achieve an effluent velocity through the network of at least 2 feet per second to the first exit hole on each lateral. Each line of the pressure network shall individually connect to a pressure manifold and be sealed on their distal ends and shall not be looped with other lines regardless of whether the drainfield is a bed or a trench or whether it is in a mound, filled subsurface installation. Plans and equipment specifications for low-pressure dosing systems shall be approved by the department prior to construction or installation.

(a) Where the total drainfield area is greater than 1000 square feet but not more than 2000 square feet, the applicant may, in lieu of low-pressure dosing, choose to split the drainfield into two drainfields, equal in size, each having no more than 1000 square feet, with each drainfield being lift-dosed.

(b) ~~Dosing systems with 2000 square feet of drainfield or less shall consist of a pump tank that receives the flow from a septic tank or other sewage waste receptacle.~~ Two pumps shall be required for commercial use where dosing is required due to drainfield size or where gravity flow into the drainfield is not possible, and estimated establishment sewage flows exceed 500 gallons per day. Where more than one pump is used, the pumps shall dose alternately. Where dosing is required for a commercial system for flows of 500 gallons or less per day, only one pump shall be required if the drainfield does not exceed 2000 square feet.

(c) Systems having more than 2000 square feet of drainfield shall have a minimum of two dosing pumps, with each pump serving a proportionate amount of the total required absorption area. The pumps shall dose alternately.

(d) ~~The volume dosed between the pump operating levels~~ volume shall ~~be adequate to assure that~~ fill the entire drain pipe network ~~is filled~~ at least four times each cycle.

(e) When a drainfield is installed in slightly limited soil, operating levels shall be adjusted to dose the drainfield a maximum of six times in a 24 hour period. For moderately limited soils the drainfield shall be dosed no more than four times in a 24 hour period. More frequent dosing may be allowed with systems designed by engineers ~~licensed in the state of Florida.~~

(f) The distribution network for drainfields having an absorption area less than 1500 square feet shall be designed by an ~~an~~ Florida ~~licensed professional~~ engineer or a master septic tank contractor. The network for drainfields having an absorption area of 1500 square feet or larger shall be designed by an ~~an~~ Florida ~~licensed professional~~ engineer.

(g) Drip emitter systems shall be designed ~~in accordance with~~ per paragraphs 64E-6.014(3)(b) and (c) and subsection 64E-6.009(5), F.A.C.

(4) ~~Lift dosing—Where~~ For drainfields of 1000 square feet or less where a septic tank or sewage waste receptacle is placed too low to permit gravity flow into a properly designed, constructed and located drainfield is not possible, a pump tank with a pump ~~or similar type device~~ shall be used to lift ~~dose~~ the effluent to a ~~properly constructed~~ header pipe or distribution box ~~for effluent distribution by gravity~~ to the drainfield. ~~This provision shall apply only to drainfields of 1000 square feet or less of total area.~~ Tank size and pumps with effluent level controls and alarms shall be specified and set in accordance with the requirements set forth in paragraphs 64E-6.014(3) (b) and (c) and subsection 64E-6.013(8)(9), F.A.C.

(5) ~~Drain trenches and absorption beds—drain~~ 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~~ Systems shall be constructed as specified below.

(a) When utilizing the standard drain trench method, the width of the trench at the bottom shall not exceed 36 inches. For trenches of 12 inches or less, there shall be a minimum separation distance of 12 inches between the sidewalls of adjacent trenches; trenches greater than 12 inches require a minimum 24 inch separation between the sidewalls of adjacent trenches.

(b) ~~The trench method shall be the preferred method. Absorption beds may be used in lieu of the standard drain trench method.~~ An absorption bed consists of an area in which the entire earth content of the required absorption area is removed and replaced with ~~aggregate and distribution pipe or other approved alternative~~ drainfield components. The distance between the centers of distribution lines in standard beds shall be a maximum of 36 inches. The distance between the sidewall of the bed and the center of the outside drain line shall be no more than 18 inches, but ~~shall not be~~ not less than six inches. Where header pipe is used in lieu of a distribution box, the header shall extend to within 18 inches of the bed sidewalls. In no case shall ~~the bottom surface of~~ an absorption bed exceed a total of 1500 square feet. Where two or more beds are used to obtain the necessary absorption area, there shall be a minimum 10 foot separation between the sidewalls of adjacent absorption beds. Absorption beds shall be designed to achieve the maximum length to width ratio practical.

(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 C-33-86 or lightweight aggregate conforming to ASTM C330-87 meeting State of Florida Department of Transportation (FDOT) specifications under Section 901, "Standard Specifications for Road and Bridge Construction, 1991." ~~and the following gradation requirements. Approved materials for drainfield mineral aggregate shall be limestone, slag, quartz rock, granite, river gravel, recycled crushed concrete, lightweight aggregate and other equally durable materials. The aggregate shall be labeled as drainfield aggregate on the invoice. A copy of the invoice shall be part of the documentation of aggregate size and quality and records shall be available for department review for a period of two years from the date of purchase. This invoice shall clearly certify that the material meets the requirements for drainfield use. Not more than 3.75% by weight of the aggregate material at the point of use shall pass a #200 sieve 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. Approved materials for drainfield mineral aggregate shall be limestone, slag, quartz rock, granite, river gravel, recycled crushed concrete, lightweight aggregate and other equally durable materials.

2. The aggregate shall be labeled as drainfield aggregate on the freight bill of lading. Effective March 1, 1995, a copy of the freight bill of lading shall be part of the documentation of aggregate size and quality and records shall be available for department review for a period of two years from the date of purchase. This bill of lading shall clearly certify that the material meets the requirements for drainfield use.

(d) Mineral aggregate material shall have a total depth of at least 12 inches extending throughout the width of the trench or absorption bed. The distribution pipe shall have a minimum of six inches of aggregate under the pipe, but shall not exceed 10 inches under the pipe when the total depth of aggregate is 12 inches.

(e) The drainfield in place shall be protected from infiltration of earth backfill by a barrier of polyester bonded filament. The barrier shall be placed on top of the drainfield only. For alternative drainfield systems any required earth backfill barrier shall be as specified by the alternative system manufacturer, which must be approved by the department at the time of the initial alternative drainfield approval and approved by the department.

(f) Providing the requirements of subsections 64E-6.006(1), (2) and (6), F.A.C., are met, the maximum depth from the bottom of the drainfield to the finished ground surface shall not exceed 30 inches after natural settling. The minimum earth cover over the top of the drainfield, distribution box or header pipe in standard subsurface drainfields shall be 6 inches after natural settling.

(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 distributed as equally as possible throughout the drainfield area. All plastic pipe shall conform to the standards of ASTM D 3034-98, Standard Specification for Type PSM Poly (Vinyl Chloride) (PVC) Sewer Pipe and Fittings (1998), herein incorporated by reference, ASTM F 405-97, Standard Specification for Corrugated Polyethylene (PE) Pipe and Fittings (1977), herein incorporated by reference, or ASTM F 810-99 (1999), herein incorporated by reference.

(h) Depending on the type of drainfield system being utilized, the drainfield-absorption surface shall be constructed level or with a downward slope not exceeding one inch per 10 feet. Drain lines shall be placed at the same slope as the drainfield-absorption surface.

(i) Except for pressure dosed systems, the maximum length of drain lines shall not exceed 100 feet for all gravity-fed and lift-dosed drainfields, and where two or more drain lines are used, the lengths of all of the drain lines shall vary by no more than the length of the drainfield product being used or 10 feet, whichever is less. They shall be, as near as practical, the same length. The ends of two or more drain lines in bed and mound systems shall be connected to produce a continuous circuit. A continuous circuit arrangement is required for bed and mound systems and also recommended but not required for standard drain trench systems. However, when a continuous circuit arrangement is not used, the distal ends of the drain lines shall be capped or sealed.

(j) No part of a drainfield shall be placed within 18 inches of the treatment or pump tank.

(k) If lots are encountered whereby a standard drainfield system cannot meet drainfield slope or soil cover requirements, a drop box configuration may be used at the installer's discretion, if it conforms with for sloping lots as per Section 7.2.8.1, Chapter 7, EPA 625/1-80-012, (NTIS PB83219907), 1980, Design Manual for Onsite Wastewater Treatment and Disposal Systems, Chapter 7, Section 7.2.8.1, such section hereby incorporated by reference, may be used at the installer's discretion for drainfield construction.

(6) All materials incorporated herein that are not available at flrules.org may be reviewed at the Bureau of Environmental Health, 4025 Esplanade Way, Tallahassee, Florida 32399-1710. All materials incorporated herein may be obtained from the Bureau of Onsite Sewage Programs at www.MyFloridaEH.com or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida 32399-1713.

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#### 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 system 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:

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 only after the submission of an application accompanied by the necessary exhibits and fees. Form DH 4015 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 any buildings, 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 within a distance of the current required setbacks plus 25 feet to the existing or proposed onsite sewage system which restricts replacement or relocation of the drainfield system. If spoil material will be buried on the site, the location of the proposed burial site shall be shown. The existing drainfield type shall be described. For example, mineral aggregate, non-mineral aggregate, chambers, or other;

(b) An Existing System and System Repair Evaluation completed on Form DH 4015. A signed tank certification from a registered or master septic tank contractor, state-licensed plumber, Certified Environmental Health Professional providing all tank information required on the form including the certification statement, may be substituted for that portion of the form. The existing drainfield type shall be described. The size of the septic tank or other treatment tank currently in use and the approximate square footage and elevation of the drainfield existing on the site;

(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. The quantity and type of waste being discharged to the system. Where water use records cannot be obtained, estimates shall be made from values found in Rule 64E-6.008, Table I, F.A.C.;

(d) When available, water use records for the previous 18 months. The soil textures encountered within the existing and proposed drainfield areas, and the estimated water table during the wettest season of the year;

(e) Any unusual site conditions which may influence the system design or function such as sloping property, drainage structures such as roof drains or curtain drains, and any obstructions such as patios, decks, swimming pools or parking areas;

(f) The person performing the site evaluation shall provide a brief description of the nature of the failure which is occurring;

(2) Site evaluations necessary to obtain the above referenced information shall be conducted at the expense of the owner or lessee by department personnel, by an engineer who is licensed in the State of Florida or by other qualified persons as per subsection 64E-6.004(3), F.A.C. Site specific information may be obtained by the applicant through examination of department records of permits previously issued for the site;

(3) When a repair is to be performed on a failing system in which the contractor will be using any method other than drainfield addition or replacement, the following additional permit application information shall be submitted to the county health department by the contractor in addition to the information required in subsections 64E-6.015(1) and (2), F.A.C.

(a) 1. The process to be used to repair the system. Examples include high-pressure water jetting of drainlines and high-pressure injection of air alongside the drainfield. Such information shall include the manner in which the proposed repair will take place. The manufacturers recommended method for product use, quantities and concentration of product, shall be included in this information.

(b) 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.

(c) 3. Any repair method proposed which intends to physically disrupt the absorption surface shall include a drawing diagram of the drainfield system that includes a diagram of the sites with the locations where the absorption surface will be disrupted and the depth of each disruption shall be recorded at each site noted at each location.

(2)(4) Where the absorption surface of the drainfield is within 126 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. A replacement drainfield shall not be installed over or within two feet of any remaining portion of the existing disconnected drainfield. An alternative repair method addressed in subsection 64E-6.015(3), F.A.C., shall not be used. The existing drainfield shall be removed and a Replacement drainfields shall be installed in accordance with all other repair criteria, including separation from seasonal high water table and drainfield sizing. Paragraph 64E-6.015(6)(f), F.A.C., shall be used to determine septic tank conformance.

(3)(5) The department shall make every effort to issue a permit within 2 working days after receiving the application for system repair. 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)(6) Construction materials used in system repairs shall be of the same quality as those required for new system construction. Aggregate and soil in spoil material from drainfield repairs shall not be used in system repair in any manner. Undamaged drainfield infiltration 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 and shall not impair groundwater or surface water. Mineral aggregate and soil in sSpoil 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 sufficiently 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. Depth of seasonal high water table to the spoil material must be at least twelve six inches. Setbacks for buried spoil material shall be no less than the setbacks required for the replacement drainfield the same as for onsite sewage treatment and disposal system drainfields. 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 Section Rule 64E-6.005, F.A.C.

1. When the setback of 75 feet between the system and a private potable well cannot be met, the greatest setback attainable, no less than 50 feet and no less than the existing setback shall be obtained.

2. When a 24-inch separation between the bottom of the drainfield and the wet season water table cannot be met, the greatest separation attainable, no less than 12 inches and no less than the existing separation shall be obtained.

3. When the 42-inch effective soil depth below the bottom of the drainfield cannot be obtained, the greatest effective soils depth attainable, no less than 24 inches and no less than the existing effective depth shall be obtained.

4. When the setback of 50 or 75 feet, as required in 64E-6.005, FAC, between the system and surface water cannot be met, the greatest setback attainable, no less than 50 feet and no less than the existing setback shall be obtained.

5. When the setback of 50 feet between the system and a non-potable well cannot be met, the greatest setback attainable, no less than 25 feet and no less than the existing setback shall be obtained.

6. When the setback of 4 feet between the drainfield sidewall and the start of the slope cannot be met, the greatest setback attainable, no less than 2 feet shall be obtained.

7. When the setback of 5 feet between the system and the property line or building foundation cannot be met, the greatest setback attainable, no less than 2 feet shall be obtained. 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.

(b) When site conditions exist which allow setbacks in Section 64E-6.005 to some features by reducing the setbacks from other features, the setback having the lesser impact on groundwater, surface water and public health shall be the one reduced, 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.

(c) 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
Prior to 1-1-72	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 (>6 inches) b) Original Separation (if >6 inches) c) 6 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

2456	Drainfield Sidewall	2	4 feet	Greatest of the
2457	to Start of Slope			Following:
2458				a) Maximum
2459				Separation (>2.5
2460				feet)
2461				b) 2.5 feet
2462				
2463	System to Property	1	5 feet	Greatest of the
2464	Line or Building			Following:
2465	Foundation			a) Maximum
2466				Setback
2467				(>2 feet)
2468				b) 2 feet
2469				
2470	1-1-72 System to a Private	6	75 feet	Greatest of the
2471	to Potable Well			Following:
2472	12-31-82			a) Maximum
2473				Setback (<75 feet
2474				and >50 feet)
2475				b) Original
2476				Setback (if >50
2477				feet)
2478				c) 50 feet
2479				
2480	Bottom of Drainfield	5	24 inches	Greatest of the
2481	Absorption Surface			Following:
2482	to Wet Season Water			a) Maximum
2483	Table			Separation (<24
2484				inches and >6
2485				inches)
2486				b) Original
2487				Separation (if >6
2488				inches)
2489				c) 6 inches
2490				
2491	Effective Soil Depth	5	42 inches	Greatest of the
2492				Following:
2493				a) 36 inches
2494				b) Maximum
2495				Separation
2496				(> 24 inches)
2497				c) 24 inches
2498				
2499	System to Surface	4	75 feet	Greatest of the
2500	Water			Following:
2501				a) Maximum
2502				Setback (<75 feet
2503				and >50 feet)
2504				b) Original
2505				Setback (if >50
2506				feet)
2507				c) 50 feet
2508				



2509	System to	3	50 feet	Greatest of the
2510	Non-Potable Well			Following:
2511				a) Maximum
2512				Setback (<50 feet
2513				and >25 feet)
2514				b) Original
2515				Setback (if >25
2516				feet)
2517				c) 25 feet
2518				
2519	Drainfield Sidewall	2	4 feet	Greatest of the
2520	to Start of Slope			Following:
2521				a) Maximum
2522				Separation
2523				(>3 feet)
2524				b) 23 feet
2525				
2526	System to Property	1	5 feet	Greatest of the
2527	Line or Building			Following:
2528	Foundation			a) Maximum
2529				Setback
2530				(>2 feet)
2531				b) 2 feet
2532				
2533	1-1-83 to	System to a Private	6	75 feet
2534	Present	Potable Well		
2535				
2536	Bottom of Drainfield	5	24 inches	Greatest of the
2537	Absorption Surface			Following:
2538	to Wet Season Water			a) Existing
2539	Table			elevation
2540				(>12 inches)
2541				b) 12 inches
2542				
2543	Effective Soil Depth	5	42 inches	Greatest of the
2544				Following:
2545				a) Maximum
2546				Separation (>36
2547				inches)
2548				b) 36 inches
2549				
2550	System to Surface	4	75 feet	Greatest of the
2551	Water			Following:
2552				a) Maximum
2553				Setback (if >50
2554				feet)
2555				b) 50 feet
2556				
2557	System to	3	50 feet	50 feet
2558	Non-Potable Well			
2559				
2560	Drainfield Sidewall	2	4 feet	4 feet
2561	To Start of Slope			
2562				

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

**Footnotes to Table V:**

(d) 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.

(e) Where severely limited soil underlies the drainfield, soil removal and replacement shall be ~~performed~~ as per Footnote 3. and 4. to Table III in Section 64E-6.008, F.A.C.

(f) ~~Where the cause of system failure is determined to be from root clogging or physical damage of the distribution box or drainfield, and where removal of the root mass and restoration of the damaged drainfield will restore the system to its original design, upon permitting and inspection of the repair, permit satisfaction will be considered 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.~~

(g) ~~For systems receiving domestic wastewater 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 provided that sewage flows shall be determined from values found in Table I of Section 64E-6.008, F.A.C., or, for non-residential applications, on the highest monthly flow for the previous 18 month period from documented water use records, whichever is higher.~~

1. If sufficient area is available, the existing drainfield can be left in place and used as part of the system. A new drainfield equal in size to, and separate from, the existing drainfield shall be added and flow directed to both the old and new drainfield.

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.

**TABLE VI**  
**Residential Sizing for Slightly Limited Soil Textures**

Number of Bedrooms	Square Feet of Trench Area	Square Feet of Absorption Bed
1	75	100
2	150	200
3	225	300
4	300	400
Add per bedroom	75	100

**TABLE VII**  
**Residential Sizing for Moderately Limited Soil Textures**

Number of Bedrooms	Square Feet of Trench Area	Square Feet of Absorption Bed
1	100	125
2	200	250
3	300	375
4	400	500
Add per bedroom	100	125

(h) ~~(d)~~ Repairs of ~~systems receiving commercial sewage waste commercial systems installed prior to 1983~~ 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.

1. Drainfield loading shall not exceed 0.0015 pounds combined CBOD<sub>5</sub> and TSS per square feet per day based on measured

concentrations of treatment receptacle effluent samples and estimated sewage flow.

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

3. 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.

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

2. Failed drainfields shall at a minimum, meet the sizing criteria specified below:

a. If sufficient room is available, the existing drainfield can be left in place and used as part of the system. A new drainfield equal in size to, and separate from, the existing failed drainfield shall be added.

b. Sewage loading rates to trench or absorption bed bottom areas shall be in accordance with the values in Table VIII which are applicable to subsurface and filled drainfield systems if the existing drainfield is replaced with a new drainfield. 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.

TABLE VIII  
Drainfield Sizing for Commercial Systems Installed

	Prior to 1983	
	in gallons/square foot/day	
	Trenches	Absorption Beds
Slightly limited textures	1.00	0.80
Moderately limited textures	0.65	0.50

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

(f) A tank need not be replaced as part of the repair if the health unit determines the tank to be structurally sound, constructed of approved materials, and if such tank has an effective capacity within two tank sizes of the capacities required by Table II. In addition, the tank shall be pumped and a solids deflection device shall be installed as a part of the outlet of the tank if one is not currently in place.

(g) Repairs to a system shall not be located within 2 feet of a sleeved and sealed potable water line or 2 feet from non-potable water lines.

(i)(h) 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.

(j)(i) 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 in 381.0065(4)(e), F.S. as per paragraphs 64E-6.005(1)(b) and (c), F.A.C.

(k) 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 Section 64E-6.008, F.A.C. The tank shall be pumped and a solids deflection device installed if one is not currently in place.

(6)(7) If a repair cannot be made utilizing the standards in subsection 64E-6.015(5)(6) above, F.A.C., 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 above 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 minimum setbacks in subsection 64E-6.015(5), F.A.C., and other pertinent features which are less than the setbacks in subsection (6) above shall not be reduced below existing setbacks. Nothing in this section shall be construed to allow a drainfield to remain in the wet season water table. The appropriate requirements for bottom of drainfield absorption surface to wet season water table separation in Table V shall be adhered to in all repairs. Engineer-designed retention walls may be used to enclose 100 percent of a mound perimeter to maximize the quantity of drainfield installed. If the resulting drainfield area is less than 75 percent of the drainfield required in subsection 64E-6.015(5), F.A.C., 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. 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, F.A.C.

(7)(8) If soil replacement is to be performed on any repair, the requirements of Footnotes 3 and 4 to, Table III in Section 64E-6.008, F.A.C., shall be adhered to.

(9) System repairs shall be performed by persons who are qualified to do so as set forth in Part III of this rule.

(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.

(8)(12) For inspection purposes when a drainfield is repaired using a physical disruption method, such as air injection, the contractor shall mark the location of each injection site in an easily identifiable manner.

The county health department shall inspect repairs to determine that the absorption surface of the repaired drainfield meets the separation requirements from 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.

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, \_\_\_\_.

#### 64E-6.0151 Product Composition.

(1) Any product sold or used in the state for use in an onsite sewage treatment and disposal system shall be in compliance with the requirements of Section 381.0065(4)(m), F.S. The following criteria shall be used in determining product compliance.

(a) Use of the product shall not result in violations of Surface Water Quality Rule 62-302.500, F.A.C., effective 5-15-2002, or Groundwater Quality Rules 62-520.400 and 62-520.420, F.A.C., effective 12-9-1996.

(b) The product's formula itself shall not exceed water quality contaminant concentrations in Rule 62-302.500, F.A.C., effective 5-15-2002, or Rules 62-520.400 and 62-520.420, F.A.C., effective 12-9-1996.

(c) The product shall contain no substance in concentrations or amounts that would interfere with or prevent the successful operation of an onsite sewage treatment and disposal system.

(2) If the department determines an onsite sewage treatment and disposal system product is not in compliance with the criteria in Section Rule 64E-6.0151, F.A.C., the department shall notify the product manufacturer of the items in non-compliance not in compliance. The product shall be allowed to be continued for sale and used in Florida for a maximum of 90 days from date of receipt of notification of violation non-compliance. To prove product compliance with Section 381.0065(4)(m), F.S. and this rule the manufacturer shall minimally provide the following: This is to allow the manufacturer an opportunity to exhibit to the department that the product satisfactorily complies with the conditions of Section 381.0065(4)(m), F.S., and this rule. In attempting to demonstrate compliance with Section 381.0065(4)(m), F.S., and this rule, the manufacturer shall provide at a minimum the following information:

(a) A listing of all physical, chemical, biological or other agents which make up the product and provide toxicity information for each component. This information shall include trade names, chemical names, and concentrations of all individual or complexed components and the product's Material Safety Data Sheet (MSDS) for the product. Any trade secret will be treated according to Section 381.83, F.S.

(b) A list of all known, expected, or possible reactions and by-products resulting from use of the product including the effect on bacteria, all standard contents of the tank, including sludge layer, scum layer, fats, oils and greases, and the effects on currently approved drainfield distribution systems.

(c) Test results from a State or EPA-certified laboratory demonstrating that use of the product will not result in violations of surface water or groundwater standards in this section Rule 64E-6.0151, F.A.C. Tests shall be conducted on the product as sold and the test results shall include:

1. Acute Definitive Toxicity test [96 hour LC<sub>50</sub>] according to EPA Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (EPA-821-R-02-012), October 2002, herein incorporated by reference, for *Pimephales promelas* (fathead minnow) or any of the following species: *Ceriodaphnia dubia* (daphnid), *Cyprinella leedsii* (bannerfin shiner), *Daphnia pulex* and *Daphnia magna* (daphnids). The 96-hour LC<sub>50</sub> shall be reported as a concentration in mg/L or ml/L, and;

2. Chemical analysis showing the concentrations of Volatile Organic Compounds [EPA 8260] to a minimum detection level for each compound sufficient to determine if a water quality violation will occur of 0.5 ug/L (ppb).

(d) A description of the anticipated use of the product in onsite sewage treatment and disposal systems. Where and how the product is to be applied, any exceptions to application guidelines, the frequency of applications, who is allowed to perform the applications, and the amount and concentration of product per application shall be included in the product description. When the product should not be used shall also be included in the description. The information provided shall include the manufacturer's recommended application rate of the product as it appears on the product label. Unless the product label provides other specifications, the department, for purposes of this evaluation, assumes that the application rate will be applied to a flow of 300

gallons per day into a 1000-gallon septic tank. For chemicals embedded in physical objects, the object, or fragments of the object, shall be submerged in water with the pH and temperature manipulated for a period of time to maximize the possible release of the chemicals into the water in worst-case real-world conditions. That water shall become the test material for the analysis.

(e) All available studies done on the use of the product which support or disputes the information required in this section ~~Rule 64E-6.0151, F.A.C.~~, and which demonstrates the product will not harm public health or the environment and will not impair system components and functioning. Monitoring reports and data from systems in use shall be provided, ~~if available.~~

(f) ~~A signed and dated certification by the manufacturer that states~~ Manufacturer's certification stating: "I certify under penalty of law that these documents and all attachments, to the best of my knowledge and belief, are true, accurate and complete, and represent all available data for [name of product or products]."

(g) Scientific documentation demonstrating claimed benefits occurring due to the use of the product.

(3) If the department determines that the product does not comply with the provisions of Section 381.0065(4)(m), F.S., the department shall stop the sale of the product or take other actions deemed necessary to preclude the sale and use ~~of the non-compliant product.~~

(4) Products shall not be used in a manner contrary to the product label instructions.

Rulemaking Authority ~~381.0011(4), (13), 381.0065(4)(m), (3)(a)~~ FS. Law Implemented 381.0065 (4)(m), ~~381.0065~~ FS. History—New 3-22-00, Amended 5-24-04, 6-25-09, \_\_\_\_.

#### **64E-6.016 U.S. Department of Agriculture Soil Textural Classification System (Repealed).**

(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:

	Diameter Limit in Millimeters
Separate	
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—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—Loamy sand feels extremely gritty and forms a weak ball that cannot be handled without breaking.

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

(d) Loam—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—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—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—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—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—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—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—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—25 percent or more very coarse and coarse sand and less than 50 percent any other single grade of sand.
2. Sand—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—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—50 percent or more very fine sand.

(b) Loamy sands—At the upper limit 85 to 90 percent sand and the percentage of silt plus 1 1/2 times the percentage of clay is 15 or more; at the lower limit 70 to 85 percent sand and the percentage of silt plus twice the percentage of clay is 30 or less.

1. Loamy coarse sand—25 percent or more very coarse and coarse sand and less than 50 percent any other single grade of sand.
2. Loamy sand—25 percent or more very coarse, coarse, and medium sand and less than 50 percent either fine sand or very fine sand.
3. Loamy fine sand—50 percent or more fine sand; or less than 50 percent very fine sand and less than 25 percent very coarse, coarse, and medium sand.
4. Loamy very fine sand—50 percent or more very fine sand.

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

1. Coarse sandy loam—25 percent or more very coarse and coarse sand and less than 50 percent any other single grade of sand.
2. Sandy loam—30 percent or more very coarse, coarse, and medium sand, but less than 25 percent very coarse and coarse sand, and less than 30 percent either fine sand or very fine sand.
3. Fine sandy loam—30 percent or more fine sand and less than 30 percent very fine sand; or between 15 and 30 percent very coarse, coarse, and medium sand; or more than 40 percent fine and very fine sand, at least half of which is fine sand, and less than 15 percent very coarse, coarse, and medium sand.
4. Very fine sandy loam—30 percent or more very fine sand; or more than 40 percent fine and very fine sand, at least half of which is very fine sand, and less than 15 percent very coarse, coarse, and medium sand.

(d) Loam—7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand.

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

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

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

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

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

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

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

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

Rulemaking Authority 154.06, 381.0011, 381.006, 381.0065, 489.553, 489.557 FS. Law Implemented 154.01, 381.001, 381.0011, 381.0012, 381.0025, 381.006, 381.0061, 381.0065, 381.00655, 381.0066, 381.0067, Part I 386 FS. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.58, Amended 3-17-92, 1-3-95, Formerly 10D-6.058, Repealed.

#### **64E-6.017 Definitions for Systems in the Florida Keys.**

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

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

(2) (4) Building Area—that enclosed area of a dwelling unit, excluding the garage, carport, exterior storage shed, or open or screened patios or decks. Calculations of building area shall be made by measurements of the outside building dimensions. Building area of each additional story of the structure shall be added to determine the total building area.

(3) (2) Cesspit – a pit, ~~with or without a cover,~~ that receives untreated sewage from a building and discharges the sewage, ~~either untreated or improperly treated,~~ directly to the surrounding soil or limestone. A septic tank that functions as a cesspit shall be considered a cesspit.

(4) (3) Injection well – an open vertical hole at least 90 feet in depth, fully cased and grouted to at least 60 feet in depth which is used to dispose of onsite sewage treatment and disposal system effluent.

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

(a) Biochemical Oxygen Demand (CBOD <sub>5</sub> )	10 mg/L <del>1</del>
(b) Suspended Solids	10 mg/L <del>1</del>
(c) Total Nitrogen, expressed as N	10 mg/L <del>1</del>
(d) Total Phosphorus, expressed as P	1 mg/L <del>1</del>

(6) (5) Salt Marsh and Buttonwood Associations – two plant associations that are ~~used in this Chapter, sometimes collectively or individually referred to as the “transitional zone.”~~

(a) The salt marsh community is a wetland area subject to tidal influence wherein the dominant vegetation includes ~~the following:~~

1. *Batis maritima* Saltwort;
2. *Distichlis spicata* Salt grass;
3. *Fimbristylis castanea* Chestnut sedge;
4. *Monanthochloe littoralis* Key grass;
5. *Salicornia* spp. Glasswort;
6. *Sesuvium portulacastrum* Sea purslane; and
7. *Spartina* spp. Cordgrass.

The woody vegetation ~~that may be present includes~~ include red, white and black mangroves, as well as buttonwood (*Conocarpus erectus*); the salt marsh community is distinguished by the dominance of non-woody plants, and the woody species have a coverage of less than 40 percent. ~~The salt marsh community~~ It may be associated and intermixed with areas of almost bare ground on which the vegetation may be limited to mats of algae.

(b) The buttonwood association is an association that is usually present in the more landward zone, and may intermix with more upland communities. The vegetation may include, but is not limited to, ~~the following species:~~

1. *Borrchia* spp. Sea oxeye daisy;
2. *Bumelia celastrina* Saffron plum;
3. *Coccoloba uvifera* Sea grape;
4. *Conocarpus erectus* Buttonwood;
5. *Erithalis fruticosa* Black torch;
6. *Fimbristylis castanea* Chestnut sedge;
7. *Jacquinia keyensis* Joewood;
8. *Lycium carolinianum* Christmas berry;
9. *Maytenus phyllanthoides* Mayten; and
10. *Spartina* spp. Cordgrass.

The buttonwood association is distinguished from the salt marsh association by the dominance of buttonwood trees, usually occurring as an open stand that permits the growth of an under-story of groundcovers and ~~shrubs~~ shrubs.

(7) (6) Nutrient reducing material – material which is used ~~in the final treatment stage of an onsite sewage treatment and disposal system~~ to reduce effluent nutrient levels ~~to the minimum level of waste treatment.~~

(8) (7) Undocumented system – ~~an onsite sewage treatment and disposal~~ system that does not have a record of ~~installation and department~~ approval.

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

#### 64E-6.018 System Location, Design and Maintenance Criteria ~~for Systems in the Florida Keys.~~

(1) Table III of ~~section~~ Chapter 64E-6.008, Part I, F.A.C., and other subsections of Part I pertaining to soil texture, soil depth, and



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

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

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

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

(2) Effluent loading rates for various system components installed under 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 CBOD <sub>5</sub> and TSS before the effluent passes through the filter.	8 gallons per day per square foot

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

(4) ~~(1) An onsite sewage treatment and disposal~~ system which meets the location, construction, maintenance and operational requirements of [this section paragraphs 64E-6.018\(1\)\(a\) or \(b\), F.A.C.](#), shall be approved, provided that if an aerobic treatment unit is a component of the system design, the certification, construction, operational and maintenance requirements of [Section Rule 64E-6.012, F.A.C.](#), shall also be met. The design engineer may specify an aerobic treatment unit with a minimum treatment capacity equal to the estimated sewage flow in Table I in section 64E-6.008, F.A.C., in lieu of using ~~the values in~~ Table IV in section 64E-6.012, F.A.C., when the aerobic treatment unit is part of a performance-based treatment system.

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

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

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

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

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

requirements of this subsection:

2. No part of the system shall be within 25 feet of the boundaries of surface water bodies or salt marsh and Buttonwood Association habitat areas where the dominant vegetation species are those typical of salt marsh communities.
4. 3. The bottom of the drainfield shall be at least 24 inches above the wet season water table. The bottom surface of the nutrient reducing material layer shall be at least 12 inches above the wet season water table. The bottom surface of the sand layer, if required, shall be at or above the elevation of the wet season water table, ~~mean high water~~.
4. Appropriate shallow root vegetative cover shall be established over drainfield systems to maximize the beneficial effects of evapotranspiration.
5. Nutrient reducing material has a finite life span. The nutrient reducing material shall be replaced as necessary to ensure that the system continues to meet the minimum level of waste treatment.
5. Even distribution over the nutrient reducing material layer shall be assured by utilizing low-pressure dosing or drip irrigation.
6. If drip emitter lines are used, the nutrient-reducing material shall extend at least 12 inches horizontally from the lines.
- (b) When final disposal is into a sand-lined drainfield, the following general requirements apply:
  1. For a sand-lined drainfield, a minimum 12 inch thick layer of quartz sand shall be placed beneath the bottom of the drainfield adsorption surface and a minimum 12 inch wide and minimum 24 inch thick layer of quartz sand shall be placed contiguous to the drainfield sidewall adsorption surfaces in order to provide an additional level of effluent treatment prior to effluent passing into the surrounding natural limestone rock. Sand material shall have either an effective grain size in the range of 0.25 millimeter to 1.00 millimeter and shall have a uniformity coefficient of less than 3.5, or the material shall be of such size whereby at least 90 percent of the sand particles pass a U.S. Standard Number 18 sieve and less than 10 percent pass a number 60 sieve. These materials are in the USDA soil texture classes known as medium sand and coarse sand. The installer of a sand-lined drainfield system shall provide to the department certification from the sand supplier that the sand meets the requirements of this subsection.
  2. The system shall meet the setback requirements of 64E-6.018(4)(a)3.
  3. The bottom of the drainfield shall be at least 24 inches above the wet season water table.
  - (c) (b) An injection well shall be approved for final effluent disposal provided setbacks from salt marsh/buttonwood habitats and other surface water bodies cannot be met by another approved effluent disposal system described in this section noted above, and provided the installation is in compliance with the following:
    1. An injection well shall not be permitted or installed under the provisions of this part in any area designated by the United States Environmental Protection Agency or the Florida Department of Environmental Protection as having a single or sole source aquifer. Single source aquifer is defined in subsection 62-520.200(14), F.A.C.
    2. In areas where injection wells are approved for use, the ~~DOH Monroe County Health~~ department shall be the permitting authority for the engineer designed onsite sewage treatment unit and the injection well, where the estimated daily domestic sewage flow will not exceed 2000 gallons per day. For establishments having a total daily domestic sewage flow greater than 2000 gallons per day but not greater than 10,000 gallons per day or establishments having a daily commercial sewage flow not greater than 5000 gallons per day, the ~~department Monroe County Health Department~~ shall be the permitting authority for the engineer designed treatment unit and ~~Department of Environmental Protection DEP~~ shall be is the permitting authority for the injection well and any additional associated effluent treatment device.
    3. The ground surface within a distance of at least 10 feet in all directions around the injection well and any portion of the ~~onsite sewage treatment and disposal~~ system shall not be subject to frequent surface or ground water flooding. In addition, the invert of the effluent inlet pipe to the injection well shall be a minimum 18 inches above the estimated ~~mean seasonal~~ high water level.
    4. If there is adequate vertical and horizontal clearance to allow for proper maintenance, repair or replacement of the treatment unit and injection well, such components of the ~~onsite sewage treatment and disposal~~ system shall be allowed to be placed beneath an elevated building.
    5. Prior to discharge into an injection well, effluent shall pass through an unsaturated mineral aggregate filter unit as described in sub-sub paragraphs 64E-6.018(4)(c)5.a. through c., FAC, below or through a filter unit that has been determined by the Bureau of Environmental Health to allow the discharge of no more than 5 mg/L of CBOD<sub>5</sub> and TSS from the filter and at a minimum shall provide a 50% reduction in CBOD<sub>5</sub> and TSS. The unsaturated mineral aggregate filter shall be designed in accordance with the following:
      - a. Effluent application to the unsaturated mineral aggregate filter unit shall be by gravity or pressure distribution to a perforated pipe distribution system as specified in Section 64E-6.014, F.A.C.. Such distribution system shall be placed within the walls of the mineral aggregate filter and shall be placed above a minimum 24-inch thick mineral aggregate filter layer. Mineral aggregate filter material shall have either an effective size in the range of 1.18 millimeters to 4.75 millimeters and a uniformity coefficient of less than 3.5 or the material shall meet aggregate size number eight or nine pursuant to specifications of the Florida Department of Transportation's Standard Specification for Road and Bridge Construction, Section 901, 1991. The system designer may specify additional layers of filter material above or below the required 24-inch layer of filter material. The installer of mineral aggregate filter systems shall provide certification from the aggregate supplier that the aggregate meets requirements of this sub-paragraph. If the filter is not sealed with a lid meeting the requirements for septic tank lids in 64E-6.013, F.A.C., the top of the filter shall be at

least 18 inches above the elevation of the wet season water table and the filter shall be capped with a layer of slightly limited soil no less than 6 nor more than 12 inches thick. The design engineer may choose to use 24 inches of phosphorous adsorbing material in lieu of the 24-inch layer of filter material provided the effective size of the phosphorous adsorbing material meets the particle size specifications of this sub-paragraph.

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

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

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

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

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

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

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

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

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

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

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

the following requirements shall be met:

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

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

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

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

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

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

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

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

(a) The maintenance entity shall inspect pAll performance-based and aerobic treatment unit new on-site sewage treatment and disposal systems shall be inspected by an approved maintenance entity at least two times each year.

(b) The maintenance entity shall furnish to the department a listing of all performance based treatment systems inspected or serviced during the respective reporting period. At a minimum, reports shall indicate the system owner or building lessee, the street address of the system, the date of system inspection or service and a statement as to the maintenance or service performed.

(c) The maintenance entity shall furnish to the department a listing of the owners who have refused to renew their maintenance contract during the respective reporting period. A maintenance report shall be kept by the maintenance entity. A copy of all maintenance reports shall be provided to the county health department. The report shall include the following information:

1. The address of the system;

2. Date and time of inspection;

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

4. Results of all sampling;

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

6. Maintenance performed;

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

(6) All systems shall be designed and constructed with sampling ports that permit access for collecting samples to assess compliance with the minimum level of treatment specified in section 64E-6.017(4), FAC.

(7) At the end of the calculated lifetime of the phosphorous-reducing material, the owner shall either cause the phosphorous-reducing material to be replaced as a system repair, or shall cause the system to be tested annually for phosphorous removal.

Provided the annual test results show that the system is meeting the phosphorous removal requirement, the phosphorous reducing material may be allowed to remain in use until an annual test result shows that the system fails to meet the phosphorous-removal standard.

(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 in the Florida Keys.

(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 [section Rule 64E-6.018, F.A.C.](#)

(2) In areas that are scheduled to be served by a central sewer by December 31, 2015, where there is documentation from the sewer utility that the property is scheduled to be served by December 31, 2015 and there is documentation from the sewer utility or from the county tax collector's office that the property owner has paid or has signed an agreement to pay for connection to the central sewer system, an onsite sewage treatment and disposal system requiring repair shall be repaired to the standards in [this section 64E-6.018\(3\), F.A.C.](#)

(a) (3) Systems shall be repaired to the following standards provided no system shall be repaired to meet a lower standard of treatment than the treatment standard permitted or required to be met prior to the repair.

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

1. (a) A Class I aerobic treatment unit shall meet which meets the location, construction, maintenance and operational requirements of subparagraph 64E-6.018(3)(a)1. or 2., F.A.C., and the certification, construction, operational and maintenance requirements of Rule 64E-6.012, F.A.C.

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

2. Effluent from an aerobic treatment unit shall discharge to a drainfield over a sand liner meeting the standards in paragraph 64E-6.018(4)(b), F.A.C.

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

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

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

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

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

(c) The following general requirements apply for the use of an aerobic treatment unit and an injection well as stated in section 64E-6.17, F.A.C.

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

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

2. Provided a Class I aerobic treatment unit is utilized and provided effluent from the treatment unit, prior to discharge into an injection well, is passed through a mineral aggregate filter unit as described in subparagraph 64E-6.018(3)(a)2., F.A.C., or where effluent is passed through a filter unit of another design which has been determined by the State Health Office to be at least equal to the mineral aggregate filter unit with regard to sewage treatment capability, an injection well shall be approved in compliance with the following:

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

b. In areas where injection wells are approved for use, the DOH Monroe County Health Department shall be the permitting agent for the aerobic treatment unit, the filter unit and the injection well, where the estimated daily domestic sewage flow will not exceed 2000 gallons per day. For establishments having a total daily sewage flow greater than 2000 gallons per day but not greater than 10,000 gallons per day, the Monroe County Health Department shall be the permitting authority for the aerobic treatment unit and the filter unit and DEP is the permitting agent for the injection well and any additional associated effluent treatment device. The effluent from the treatment unit permitted by the DOH Monroe County Health Department shall not exceed 20 mg/l CBOD<sub>5</sub> or 20 mg/l suspended solids on a permitted annual average basis and shall have disinfection in accordance with sub-subparagraph 64E-6.018(3)(a)2.h., F.A.C., prior to discharge into any injection well.

c. The interior of the aerobic treatment unit, the top surface of the mineral aggregate filter soil cover, and the ground surface

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

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

e. If a mineral aggregate filter as referred to in subparagraph 64E-6.018(3)(a)2., F.A.C., is utilized, effluent discharge from the aerobic unit shall be by gravity or pressure distribution to a perforated pipe distribution system as specified in Part I, Rule 64E-6.014, F.A.C. Such distribution system shall be placed within the walls of the mineral aggregate filter and shall be placed above a mineral aggregate filter layer which shall be at least 24 inches thick. Mineral aggregate filter material shall have either an effective size in the range of 2.36 millimeters to 4.75 millimeters and shall have a uniformity coefficient of less than 3.5 or the material shall be equivalent in size to Florida Department of Transportation aggregate classification number eight or nine. The system designer may specify additional layers of filter material above or below the required 24-inch layer of filter material. The DOH Monroe County Health Department shall require the installer of mineral aggregate filter systems to provide certification from the installer's mineral aggregate supplier that the aggregate supplied meets requirements of this sub-paragraph. If the filter is not sealed with a lid meeting the requirements of paragraph 64E-6.013(1)(e), F.A.C., the filter shall be capped with a layer of slightly limited soil no less than 6 nor more than 12 inches thick.

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

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

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

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

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

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

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

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

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

(d)(b) The following general requirements apply for the repair of a septic tank system:

1. The existing tanks shall meet the requirements of 64E-6.015(6)(f), F.A.C., or, if the tanks need to be replaced as part of the repair, they shall be replaced with tanks meeting the requirements of Table II and 64E-6.013, F.A.C.

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

3. No part of a septic tank and sand-lined drainfield system shall be located within 50 feet of the mean high water line of tidally



influenced surface water bodies or within 50 feet of the mean annual flood line of permanent non-tidal surface water bodies.  
4. The drainfield component of the system must be located a minimum distance of 50 feet from salt marsh and buttonwood association habitat areas where the dominant vegetation species are those typical of salt marsh communities.  
5. The maximum sewage loading rate to the drainfield shall be 0.9 gallons per square foot per day.  
(e)(e) A performance-based treatment system designed and certified by a professional engineer, licensed in the state, as producing an effluent meeting at a minimum the treatment standards for a system designed in accordance with 64E-6.017(4), F.A.C., and permitted, constructed and monitored in accordance with Part IV.

Rulemaking Authority 381.0065(3)(a), 381.0065(4)(l) FS. Law Implemented 381.0065 FS. History--New 3-3-98, Amended 3-22-00, 4-21-02, 5-24-04, 11-26-06, 7-16-13.

#### **64E-6.0182 Coordinated Permitting (Repealed).**

~~Chapter 28-20, F.A.C., and the Memorandum Of Understanding (MOU) between Monroe County, the Department of Community Affairs, the Department of Environmental Protection, and the Department of Health, including the Monroe County Health Department, dated July 25, 1997, are herein incorporated by reference, and is available by contacting the department. Chapter 28-20, F.A.C., and the MOU establish a permit allocation system for development and a coordinated permit review process. Chapter 28-20, F.A.C., and the MOU prohibit new system construction permits to serve new residential development that would allow development in excess of the number of permits that Monroe County may issue under its policy.~~

Rulemaking Authority 381.0011(4), (13), 381.006, 381.0065(3)(a), (4)(k) FS., Ch. 99-395, LOF. Law Implemented 154.01, 381.0011(4), 381.006(7), 381.0065, 381.00655, 386.01, 386.03, 386.041 FS., Ch. 99-395, LOF. History--New 3-3-98, Amended 3-22-00, Repealed.

#### **64E-6.019 Requirements for Registration of Septic Tank Contractors.**

(1) Persons subject to registration – ~~Excluding persons who only provide portable toilet or temporary holding tank services, a~~ person shall be subject to the requirements of this rule if ~~he or she~~ they contracts or advertises to provide septic tank contracting services to the public or holds ~~himself or herself~~ themselves out as being capable of performing such services ~~related to any of the following activities in the onsite sewage treatment and disposal industry regulated by the department:~~

- (a) ~~Installation of onsite sewage treatment and disposal systems;~~
- (b) ~~Repair of onsite sewage treatment and disposal systems;~~
- (c) ~~Modification of onsite sewage treatment and disposal systems;~~
- (d) ~~Maintenance of onsite sewage treatment and disposal systems;~~
- (e) ~~Septic tank pumping and septage disposal services, excluding companies which only provide portable toilet or temporary holding tank services;~~
- (f) ~~Abandonment of an onsite sewage treatment and disposal system.~~

(2) Any person seeking registration shall apply to the department to take the registration examination on Form DH 4075, ~~###197~~. Application for Septic Tank Contractor Registration, herein incorporated by reference, available at <https://flrules.org/gateway/reference.asp?No=Ref-####>. ~~The form is available from the department.~~

(3) A person shall be eligible to take the registration examination if they submit necessary exhibits and fees and meet the requirements of Section 489.553(4), F.S.

(a) Under the supervision and control of a registered or master septic tank contractor or a plumbing contractor in Section 489.553(4)(d), F.S., is defined as an employment relationship where compensation can be documented by the regular deduction of FICA and federal withholding tax as required by law. Principal officers of a corporation or partners of a partnership providing onsite sewage contracting services shall be recognized as being under the supervision and control of the corporation's or partnership's qualifying registered or master septic tank contractor or plumbing contractor.

(b) Related work experience includes but is not limited to ~~onsite sewage treatment and disposal~~ system design, inspection, installation, regulation, environmental health professional certification, site evaluation, underground utility contracting and wastewater treatment plant maintenance and operation. Related work experience does not include clerical, purchasing or estimating.

(c) Out-of-state work experience on a year for year basis shall be accepted for any applicant who demonstrates that they hold a current statewide license for septic tank contracting which was issued upon satisfactory completion of an equivalent examination and required continuing education courses for renewal. For purposes of this section, an equivalent examination means that at a minimum, the following topics were tested and passed: system location and installation; site evaluation criteria; system size determinations; disposal of septage; construction standards for drainfield systems and U.S. Department of Agriculture soil textural classification system. A person employed by and under the supervision and control of such a licensed contractor shall be granted up to two years of related work experience.

(4) Completed applications for registration must be received by the department's Onsite Sewage Program at least 21 days prior



to examination. ~~In order to be complete, the~~The completed and signed application must ~~have all appropriate spaces filled, be signed by the applicant,~~ be reviewed by the ~~county health department~~ office in the county where the applicant provides service, include a ~~money order or sufficiently funded check in the correct amount~~the required fee and contain ~~all necessary~~the following support documentation. ~~Support documentation shall include:~~

(a) A list of the 25 most recent contracts by the applicant or business ~~organization~~ completed immediately preceding the date of filing.

(b) Signed statements from two persons not related to the applicant for whom the applicant has provided services in the onsite sewage industry, stating what services were provided.

(c) Certification from a registered ~~or master~~ septic tank contractor or plumbing contractor of the applicant's employment dates and work responsibilities.

(d) Documentation of payment of federal withholding tax and social security as required by law. For principal corporate officers of a corporation or partners in a partnership, legal documentation of their position in the corporation or partnership may be substituted for withholding tax and social security documentation.

(e) Two ~~1 1/2 x 1 1/2 inch recent~~ color passport style photographs ~~taken within the last~~not older than 12 months, ~~and 1 1/2 x 1 1/2 inches in size.~~

(5) Eligible applicants must successfully complete an examination administered by the department. Minimum passing score for the examination shall be a 75 percent, ~~correct response to all questions comprising the exam.~~

Rulemaking Authority 489.553(3), 489.557(1) F.S. Law Implemented 489.552, 489.553 F.S. History—New 10-25-88, Amended 3-17-92, 1-3-95, 5-14-96, 2-13-97, Formerly 10D-6.072, Amended 2-3-98, 4-21-02, 6-18-03, 11-26-06, 4-28-10, \_\_\_\_.

#### 64E-6.020 Master Septic Tank Contractors.

(1) A septic tank contractor or a plumbing contractor ~~as defined in~~ certified under Section 489.105(3)(m), F.S., who is eligible under Section 489.553(5)(a) and (b), F.S., may apply to the department on Form DH 4105, ~~###/###10-96~~, Application for Master Septic Tank Contractor Registration, hereby incorporated by reference, ~~available at~~

~~https://flrules.org/gateway/reference.asp?No=Ref-#####~~, to take the master contractor examination provided ~~by the contractor.~~

(a) Has been in "active" status for the three years immediately preceding the date of application. This time period may not be interrupted by more than 60 accumulated days as "inactive" or include any registration probation or suspension imposed by the department through administrative action.

(b) Has not been assessed more than \$500 in administrative penalties by the department in the three years immediately preceding the date of application.

(c) Does not have an outstanding fine ~~assessed~~ pursuant to this chapter ~~which is~~ in final order status and judicial reviews are exhausted.

(d) Has successfully resolved any disciplinary action involving septic tank contracting where an administrative action was commenced by the department prior to the filing of the application.

(e) Has not been convicted of, found guilty of, or entered a plea of nolo contendere to, regardless of adjudication, a crime in any jurisdiction which is related to the practice of contracting for the three years immediately preceding the date of application.

(f) Has successfully completed 30 hours of master contractor course work approved by the department. ~~At a minimum, this course work shall to~~ include training and testing ~~of on~~ soil classification, system design ~~and theory~~, system material and construction standards, and regulations ~~ory requirements~~.

(2) Completed ~~and signed~~ applications for registration must be received by the department ~~Bureau of Environmental Health Onsite Sewage Program~~ office at least 21 days prior to examination. In order to be complete, the application must ~~have all appropriate spaces filled, be signed and dated by the applicant,~~ be reviewed by the ~~county health department~~ office in the county where the applicant's primary place of business is located, and include ~~the required fee, a money order or sufficiently funded check in the correct amount.~~

(3) Eligible applicants must successfully complete a comprehensive examination administered by the department. Minimum passing score for the examination shall be ~~a~~70 percent, ~~correct response to the examination questions.~~

(4) Successful applicants shall be issued a master septic tank contractor certificate after they have paid the registration fee.

(5) Master septic tank contractor certificates shall be renewed only after the contractor has completed 18 classroom hours of approved instruction for each renewal cycle. At least 6 classroom hours must be successfully completed in an approved master contractor course. Instructional time spent by a master septic tank contractor ~~in~~ providing department approved continuing education training shall receive credit as master contractor course hours. Application for renewal shall be made on Form DH 4076, ~~###/###01-03~~, Application for Septic Tank Contractor Registration Renewal, herein incorporated by reference, ~~available at~~ ~~https://flrules.org/gateway/reference.asp?No=Ref-#####~~, accompanied by the required supporting documentation and fees.

(a) A master septic tank contractor who only completes 12 classroom hours of approved instruction during the renewal cycle

shall revert to registered septic tank contractor status and shall apply for renewal under SectionRule 64E-6.021, F.A.C.

(b) Applications for renewal not submitted in a timely and complete manner shall revert to inactive status. Each application for renewal shall be considered filed in a timely manner if it is postmarked prior to close of business on the date of expiration of the certificate. If that date falls on a weekend or legal holiday, the date of expiration shall be the first working day after the expiration date of the certificate. Application for renewal of an inactive certificate shall be made on Form DH 4076, Application for Septic Tank Contractor Registration Renewal, accompanied by the required supporting documentation and fees.

~~(e) The department shall deny an application for renewal for an outstanding administrative penalty with the department where the penalty is final agency action and all judicial reviews are exhausted.~~

~~(c)(d)~~ Master contractors with "inactive" certificates shall be reinstated to "active" upon completion of the following:

1. ~~Take~~taking sufficient continuing education courses and ~~paying~~ing registration fees to cover the inactive period, or

2. ~~Retake~~retaking and passing the ~~comprehensive~~ing examination.

~~(d)(e)~~ Master contractor certificates not renewed within five renewal cycles of the expiration date shall comply with subsections 64E-6.020(1) through (4), F.A.C., to be reinstated as active.

(6) ~~All materials incorporated herein that are not available at flrules.org may be reviewed at the Bureau of Environmental Health, 4025 Esplanade Way, Tallahassee, Florida 32399-1710. All materials incorporated herein may be obtained from the Bureau of Onsite Sewage Programs at www.MyFloridaEH.com or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida 32399-1713.~~

Rulemaking Authority 489.553(3), 489.557(1) FS. Law Implemented 489.552, 489.553, 489.554 FS. History—New 2-13-97, Formerly 10D-6.0725, Amended 2-3-98, 4-21-02, 6-18-03, 11-26-06.

#### **64E-6.021 Issuance of Registration Certificates and Annual Renewal of Septic Tank Contractors.**

(1) Certificates of registration shall be renewed only after information has been provided to the department that the contractor has successfully completed 12 classroom hours of department-approved instruction within the previous 12-month period. However, if a registered contractor successfully completes more hours of approved instruction than are required for registration renewal within a 12-month period, a maximum of 6 unused hours can be rolled over to renew their next year's certificate of registration. ~~Such information~~Proof of continuing education shall be accompanied by ~~neecessary~~neecessary renewal fees and a completed renewal application on Form DH 4076, Application for Septic Tank Contractor Registration Renewal.

~~(2) Any registration renewal application which for any reason is not submitted in a timely and complete manner shall revert to inactive status.~~ Each application for renewal shall be considered filed in a timely manner if the application has been postmarked prior to the close of business on the date of expiration of the registration. If that date falls on a weekend or legal holiday, the date of expiration shall be the first working day after the expiration date on the certificate of registration.

(3) A registered contractor may request inactive status. Persons wishing to renew an inactive registration must make application on Form DH 4076 and substantiate 12 classroom hours of approved instruction for each year the registration was considered inactive. Application must be accompanied by necessary exhibits and renewal fees. Persons holding inactive registrations for more than five renewal cycles from the date of inactivation who wish to become active may not renew the inactive registration but shall seek new registration under SectionRule 64E-6.019, F.A.C.

~~(4) The department shall deny an application for renewal if there is any outstanding administrative penalty with the department where the penalty is final agency action and all judicial reviews are exhausted.~~

~~(5)~~ Approval of continuing education courses and course providers will be in accordance with the department Policy on Requirements for Continuing Education Courses and Course Providers, September 2006, herein incorporated by reference, available at https://flrules.org/gateway/reference.asp?No=Ref-####.

(6) ~~Beginning in 2004 and Every 5 years thereafter,~~ registration renewal applications shall include a 1 1/2 x 1 1/2- inch recent color passport style photograph ~~1 1/2 x 1 1/2 inches in size and not older taken within than the previous 12 months.~~ The applicant may provide the required photograph as a photographic print or in digital JPEG or TIFF format.

(7) ~~All materials incorporated herein that are not available at flrules.org may be reviewed at the Bureau of Environmental Health, 4025 Esplanade Way, Tallahassee, Florida 32399-1710. All materials incorporated herein may be obtained from the Bureau of Onsite Sewage Programs at www.MyFloridaEH.com or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida 32399-1713.~~

Rulemaking Authority 489.553(3), 489.557(1) FS. Law Implemented 489.552, 489.553, 489.554 FS. History—New 10-25-88, Amended 3-17-92, 1-3-95, 5-14-96, 2-13-97, Formerly 10D-6.073, Amended 3-22-00, 4-21-02, 6-18-03, 5-24-04, 11-26-06.

#### **64E-6.022 Standards of Practice and Disciplinary Guidelines for Septic Tank Contractors.**

(1) ~~It shall be the responsibility of P~~persons registered under this rule ~~to see~~shall ensure that work for which they have contracted and which has been performed by them or under their supervision is carried out in conformance with the requirements of all applicable Florida Statutes and Chapter 64E-6, F.A.C. The following actions by a person ~~included-registered~~included-registered under this rule shall

be ~~deemed unethical and~~ subject to penalties as set forth in this section. The penalties listed shall be used as guidelines in disciplinary cases, absent aggravating or mitigating circumstances and subject to other provisions of this section.

(a) Providing contracted services without obtaining registration from the department, failure to obtain a certificate of authorization for a firm which provides contracted services, acting under a name not registered or authorized by the department. First violation, letter of warning or fine up to \$500; repeat violation, \$500 fine; or revocation.

(b) Permit violations: ~~1-~~

~~1-~~ Contractor initiates work to install, modify, or repair a system when no permit has been issued by the department. A permit is issued after construction is started but prior to completion of the contracted work. No inspections are missed. First violation, letter of warning or fine up to \$500; repeat violation, \$500 fine and 90 day suspension or revocation.

~~2-~~ Contracted work is completed without a permit having been issued, or no ~~permit~~ application is received until after ~~contracted~~ work was completed, resulting in missed ~~inspection or~~ inspections. First violation, letter of warning or fine up to \$1000; repeat violation, revocation.

(c) Contracting with a delinquent registration. First violation, letter of warning or fine up to \$500; repeat violation, \$500 fine or revocation.

(d) Failure to call for required inspections. First violation, letter of warning or fine up to \$500; repeat violation, letter of warning or fine up to \$500 and 90 day suspension or revocation.

(e) False payment statements which are the result of assessing charges to a customer for work not performed. First violation, letter of warning or fine up to \$500; repeat violation, \$500 fine and one year suspension or revocation.

(f) Failure to reasonably honor a written warranty. First violation, letter of warning or fine up to \$500; repeat violations, \$500 fine and one year suspension or revocation.

(g) Abandoning for 30 consecutive days, without good cause, a project in which the contractor is engaged or under contractual obligation to perform. First violation, letter of warning or fine up to \$500; repeat violation, revocation.

(h) Aiding or abetting evasion of Chapter 489, F.S. First violation, letter of warning or fine up to \$500; repeat violation, \$500 fine and one year suspension or revocation.

(i) Obtaining registration through fraud or misrepresentation. Revocation and \$500 fine.

(j) Convicted or found guilty of a crime relating to contracting. Use penalty for violation most closely resembling the act underlying the conviction; repeat violation, revocation.

(k) Practicing fraud or deceit, making misleading or untrue representations. First violation, letter of warning or fine up to \$500; repeat violation, revocation.

(l) Gross negligence, incompetence, or misconduct which: ~~1-~~

~~1-~~ ~~E~~ causes no monetary or other harm to a customer, or physical harm to any person. First violation, letter of warning or fine up to \$500; repeat violation, \$500 fine and 90 day suspension or revocation.

~~2-~~ Causes monetary or other harm to a customer, or physical harm to any person. First violation, letter of warning or fine up to \$500 and 90 day suspension; repeat violation, \$500 fine and revocation.

(m) Operating a septage disposal service without a valid department operating permit. First violation, letter of warning or fine up to \$500; repeat violation, revocation.

(n) Failure to properly treat or properly dispose of septage, holding tank waste, portable restroom waste, or food service sludge. First violation, letter of warning or fine up to \$500 per violation of [SectionRule 64E-6.010, F.A.C.](#); repeat violation, revocation.

(o) Failure to maintain completed records of septage treatment and disposal activities. First violation, letter of warning or fine up to \$500; repeat violation, \$500 fine and 90 day suspension or revocation.

(p) Installation, modification, or repair of an ~~onsite sewage treatment and disposal~~ system in violation of the standards of Section 381.0065 or 381.00655, F.S., or Chapter 64E-6, F.A.C. First violation, letter of warning or fine up to \$500 per specific standard violated; repeat violation, 90 day suspension or revocation.

(q) Creation or maintenance of a sanitary nuisance as defined by Section 386.041, F.S. First violation, letter of warning or fine up to \$500; repeat violation, 90 day suspension or revocation.

(r) Falsifying an inspection report or covering a system in violation of the standards of [SectionRule 64E-6.003, F.A.C.](#) First violation, letter of warning or fine up to \$500; repeat violation, 90 day suspension ~~of master-septic-tank-contractor-privileges~~ or revocation of registration.

(s) Performing service on an onsite sewage disposal system that is clearly not necessary to improve the function or design of the system without notifying the property owner that such work is optional. First violation, letter of warning or fine up to \$500; repeat violation, \$500 fine and one year suspension or revocation.

(t) The absence of any violation from this section shall be viewed as an oversight, and shall not be construed as an indication that no penalty is to be assessed.

~~(2) Circumstances which shall be considered for the purposes of mitigation or aggravation of penalty shall include the following:~~

~~(a) Monetary or other damage to the registrant's customer, in any way associated with the violation, which damage the~~

registrant has not relieved, as of the time the penalty is to be assessed.

(b) Actual job-site violations of this rule or conditions exhibiting gross negligence, incompetence or misconduct by the contractor, which have not been corrected as of the time the penalty is being assessed.

(c) The severity of the offense.

(d) The danger to the public.

(e) The number of repetitions of the offense.

(f) The number of complaints filed against the contractor.

(g) The length of time the contractor has practiced and registration category.

(h) The actual damage, physical or otherwise, to the customer.

(i) The effect of the penalty upon the contractor's livelihood.

(j) Any efforts at rehabilitation.

(k) Any other mitigating or aggravating circumstances.

(2)(3) As used in this rule, a repeat violation is any violation on which disciplinary action is being taken where the same licensee had previously had disciplinary action taken against him or received a letter of warning in a prior case. This definition applies regardless of the chronological relationship of the violations and regardless of whether the violations are of the same or different subsections of this rule. The penalty given in the above list for repeat violations is intended to apply only to situations where the repeat violation is of a different subsection of this rule than the first violation. Where the repeat violation is the very same type of violation as the first violation, the penalty set out above will generally be increased over what is shown for repeat violations.

(4) Where several of the above violations shall occur in one or several cases being considered together, the penalties shall normally be cumulative and consecutive.

(5) The provisions of this section shall not be construed so as to prohibit civil action or criminal prosecution as provided in Part III of Chapter 489, F.S., and Section 381.0065, F.S., or for a violation of any provision of Part I of Chapter 386, F.S. No provision of this section shall be construed as to limit the ability of the department to enter into a binding stipulation with the accused party per subsection 120.57(4), F.S.

Rulemaking Authority 381.0011(4), (13), 381.0065(3)(a), 489.553(2), (3), 489.556, 489.557 FS. Law Implemented Part III 489 FS. History--New 3-17-92, Amended 1-3-95, 2-13-97, Formerly 10D-6.0751, Amended 2-3-98, 5-24-04.

#### 64E-6.023 Certification of Partnerships and Corporations Offering and Providing Septic Tank Contracting Services.

(1) (4) Authorization of a corporation is only effective as to that corporation; subsidiaries or parents of authorized corporations must be separately authorized.

(a) Application for a certificate of authorization shall be made to the department on Form DH 4077, ###/###/403, Application for Certificate of Authorization, herein incorporated by reference, available at <https://flrules.org/gateway/reference.asp?No=Ref-####>, and shall be accompanied by all required necessary exhibits and fees. A business that applies for a certificate of authorization after the midpoint mid-point of the biennial authorization cycle shall pay one-half the fee required in Section Rule 64E-6.030, F.A.C.

(b) Any certificate of authorization not renewed in a timely manner shall expire. Applications for renewal shall be considered timely filed if the application has been post marked prior to the close of business on the date of expiration of the certificate. If that date falls on a weekend or legal holiday, the day of expiration shall be the first working day after the expiration date of the certificate.

(2) A registered contractor may not be the sole qualifying contractor for more than one business required to have a certificate of authorization.

(3) A business organization which loses its qualifying contractor shall have sixty (60) days from the date the qualifier terminated his affiliation within which to obtain another qualifying person. This period shall be extended by the department for a period of 30 days pending the outcome of the examination if the applicant has provided a completed application and all required exhibits and fees. During this period, the business organization may complete any existing contracts or continuing contracts, but may not undertake new contracts.

(4) A business organization shall provide written notification to the department within 30 days of any change in the ownership of the business.

(5) A business organization that changes its name shall apply for a new certificate of authorization within 30 days of the name change.

(2)(6) All materials incorporated herein that are not available at [flrules.org](http://flrules.org) may be reviewed at the Bureau of Environmental Health, 4025 Esplanade Way, Tallahassee, Florida 32399-1710. All materials incorporated herein may be obtained from the Bureau of Onsite Sewage Programs at [www.MyFloridaEH.com](http://www.MyFloridaEH.com) or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida 32399-1713.

Rulemaking Authority 381.0065, 489.553, 489.557 FS. Law Implemented 381.0065, Part III 489 FS. History--New 10-25-88, Amended 3-17-92, 1-3-95, 5-14-96, 2-13-97, Formerly 10D-6.076, Amended 4-21-02, 5-24-04, 6-25-09, 4-28-10.

**64E-6.025 Definitions for Performance-Based Treatment System Standards.**

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

(1) Bottom infiltrative surface - the vertical projection of the drainfield's bottom surface no lower than 30 inches below grade.

(2) Composite sample - a defined mixture of grab samples of wastewater or effluent taken in proportion to either time or flow, to minimize the effect of the variability of the individual sample.

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

(4) Effluent - treated sewage at the point of discharge to the drainfield or disposal system. Where the site specific application proposes to use soil as component of the treatment system, effluent refers to the mixture of soil water, effluent and shallow groundwater recovered from the monitoring points and treatment concentration standards shall be decreased by 50% for CBOD<sub>5</sub>, TSS, TN, and TP, and by 90% for fecal coliform, and percent removal standards of Table IV shall be correspondingly adjusted. For systems designed to meet the standards of 64E-6.017(4), effluent refers to the recovered water product from a sampling point following the final design treatment step.

(5) Failure - in addition to conditions meeting the definition in Section 64E-6.002, F.A.C., an individual sample exceeding the applicable performance standards, unless the maintenance entity performs and documents maintenance, and a second individual sample is taken within 30 days of the first individual sample and meets the applicable individual performance standard.

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

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

(8) Innovative System - as defined by Section 381.0065(2), F.S.

(9) Performance-based treatment system - a specialized onsite sewage treatment and disposal system designed by a professional engineer with a background in wastewater engineering, licensed in the state of Florida, using appropriate application of sound engineering principles to achieve specified levels of CBOD<sub>5</sub> (carbonaceous biochemical oxygen demand), TSS (total suspended solids), TN (total nitrogen), TP (total phosphorus), and fecal coliform found in domestic sewage waste, to a specific and measurable established performance standard. This term also includes innovative systems.

(10) Performance-based treatment system maintenance entity - any person or business entity which has obtained an annual written permit issued on form DH4013 from the department in the county where the maintenance entity is located.

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

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

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

(14) Treatment performance standards -

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

1. Annual average concentration is the arithmetic mean of the results of all effluent samples taken within the previous 365 days.

2. Individual sample concentration - result of analysis of one effluent sample, whether grab sample or composite sample.

3. Percent removal - annual average removal of a pollutant from the discharge of the treatment system compared to the influent from the establishment. The influent stems from a septic tank or similar treatment compartment; percent removal =  $(1 - \text{effluent concentration} \div \text{influent concentration}) \times 100$ .

(b) Treatment performance standards are established for five pollutants:

1. Carbonaceous biochemical oxygen demand after five days (CBOD<sub>5</sub>), measured in mg oxygen per liter

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

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

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

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

(c) Numerical values for several levels of common treatment performance standards for the five pollutants are defined in Table

IV. Compliance during monitoring shall consist of meeting at least one of the three criteria. To achieve compliance the values determined from samples of the system shall be equal to or better than the treatment standards listed. For concentrations, better means lower, for percent removal, better means higher.

(15) Wastewater strength - the sum of the CBOD<sub>5</sub> and TSS concentrations.

TABLE IV  
PERFORMANCE STANDARDS

Domestic Sewage	Baseline Septic Tank	Baseline Treatment	Aerobic Treatment	Secondary Treatment	Advanced Secondary	Florida Keys	Advanced Wastewater
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POLLUTANT	Waste Range	Effluent Standards	Standard 24" below bottom infiltrative surface	Unit Effluent Standards	Effluent Standards	Treatment Effluent Standards	Nutrient Reduction Effluent Standards	Treatment Effluent Standards
CBOD <sub>5</sub> (mg/L)								
-annual average	300	150	10	20	20	10	10	5
-individual sample	500	300	20	60	60	30	30	10
-removal	NA*	NA	95%	90%	90%	95%	95%	97%
TSS (mg/L)								
-annual average	200	100	30	20	20	10	10	5
-individual sample	500	200	100	60	60	30	30	10
-removal	NA*	NA	85%	90%	90%	95%	95%	97%
TN (mg/L)								
-annual average	100	100	70	NR**	NR	20	10	3
-individual sample	150	150	100			50	40	6
-removal	NA*	NA	30%			50%	62%	90%
TP (mg/L)								
-annual average	18	18	12	NR	NR	10	1	1
-individual sample	25	25	18			20	4	2
-removal	NA	NA	30%			25%	50%	90%
Fecal coliform (cfu/100ml)								
-annual average	2.0E+6	2.0E+6	20	NR	200	200	NR	1
-individual sample	2.0E+7	2.0E+7	200		800	800		25
-percent reduction	NA	NA	99.999%		99.99%	99.99%	NR	99.9999%

\* NA = Not applicable

\*\* NR = No requirement

Footnote to Table IV: Where chlorine is used for disinfection in a system the design shall include provisions for rapid and uniform mixing and the minimum contact time shall be 15 minutes at the peak hourly flow or no less than 20% of the estimated daily sewage flow. For a system designed to meet advanced wastewater treatment standard for fecal coliform, a total chlorine residual of at least 1.0 mg/L shall be maintained at all times and no individual sample shall exceed 5 mg/L TSS after the last treatment step before application of the disinfectant. For a system designed to meet either the secondary or advanced secondary treatment standard for fecal coliform, a total chlorine residual of at least 0.5 mg/L shall be maintained at all times.

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

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

(a) CBOD<sub>5</sub> and TSS:

1. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for the effluent samples collected (whether grab or composite technique is used) during an annual period shall not exceed 10 mg/L.

2. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day during a period of 90 consecutive days (quarterly) shall not exceed 12.5 mg/L.

3. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day of seven consecutive days shall not exceed 15 mg/L.

4. Maximum permissible concentrations of CBOD<sub>5</sub> 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) shall be 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) CBOD<sub>5</sub> and TSS.

1. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for the effluent samples collected (whether grab or composite technique is used) during an annual period shall not exceed 5 mg/L.

2. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day during a period of 90 consecutive days (quarterly) shall not exceed 6.25 mg/L.

3. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day of seven consecutive days shall not exceed 7.5 mg/L.

4. Maximum permissible concentrations of CBOD<sub>5</sub> or TSS values in any effluent grab sample at any time shall not exceed 10 mg/L.

(b) TN.

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

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

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

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

(c) TP.

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

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

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

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

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

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

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

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

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

(a) Effluent concentrations from the treatment tank:

1. CBOD<sub>5</sub> <240 mg/L.

2. TSS <176 mg/L.

3. TN <45 mg/L.

4. TP <10 mg/L.

(b) Percolate concentrations from the baseline system prior to discharge to groundwater:



1. CBOD<sub>5</sub>—<5 mg/L;  
 2. TSS—<5 mg/L;  
 3. TN—<25 mg/L;  
 4. TP—<5 mg/L.  
 (4) Bottom infiltrative surface—the vertical projection of the bottom surface of the drainfield that is no lower in elevation than 30 inches below grade.  
 (5) Composite sample—means a combination of individual samples of wastewater or effluent taken at selected intervals, generally hourly or less for some specified period, to minimize the effect of the variability of the individual sample.  
 (6) Grab sample—a sample which is taken from a waste stream without regard to the flow in the waste stream and over a period of time not to exceed fifteen minutes.  
 (7) Effective drainfield depth—the vertical distance from the bottom of the drainfield to the invert of the distribution pipe.  
 (8) Florida Keys nutrient reduction treatment—a treatment which will provide a recovered water product that contains not more, on a permitted annual average basis, than the following concentrations from a sampling point located following the final design treatment step of the onsite sewage treatment and disposal system:  
     (a) Biochemical Oxygen Demand (CBOD<sub>5</sub>) 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  
 (9) Innovative System—as defined by Section 381.0065(2)(g), F.S.  
 (10) Performance-based treatment system—a specialized onsite sewage treatment and disposal system designed by a professional engineer with a background in wastewater engineering, licensed in the state of Florida, using appropriate application of sound engineering principles to achieve specified levels of CBOD<sub>5</sub> (carbonaceous biochemical oxygen demand), TSS (total suspended solids), TN (total nitrogen), TP (total phosphorus), and fecal coliform found in domestic sewage waste, to a specific and measurable established performance standard. This term also includes innovative systems.  
 (11) Performance System Maintenance Entity—any person or business entity which has been issued a written permit by the county health department and has been authorized by the design engineer or manufacturer of all treatment components used in the performance-based treatment system and provides operation and maintenance services associated with performance-based treatment system.  
 (12) Secondary Treatment Standards: A wastewater system with the following operational criteria:  
     (a) CBOD<sub>5</sub> and TSS:  
         1. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for the effluent samples collected (whether grab or composite technique is used) during an annual period shall not exceed 20 mg/L.  
         2. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day during a period of 30 consecutive days (monthly) shall not exceed 30 mg/L.  
         3. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day of seven consecutive days shall not exceed 45 mg/L.  
         4. Maximum permissible concentrations of CBOD<sub>5</sub> or TSS values in any effluent grab sample at any time shall not exceed 60 mg/L.  
     (b) Fecal coliform—system operation shall result in not more than 200 fecal coliform colonies per 100 ml of effluent sample. Where chlorine is used for disinfection, the design shall include provisions for rapid and uniform mixing and a total chlorine residual of at least 0.5 mg/L shall be maintained after at least 15 minutes contact time at the peak hourly flow. To determine compliance of a system, the following operational criteria (using either MP or equivalent MPN methods) are applicable:  
         1. The arithmetic mean of the fecal coliform colonies collected during the annual period shall not exceed 200 per 100 ml of effluent.  
         2. The geometric mean of the fecal coliform colonies for a minimum of 10 samples of effluent, each collected on a separate day, shall not exceed 200 per 100 ml of sample.  
         3. No more than 10% of the samples collected during a period of 30 consecutive days shall exceed 400 fecal coliform colonies per 100 ml of sample.  
         4. Any one sample shall not exceed 800 fecal coliform colonies per 100 ml of sample.  
 (13) Sidewall infiltrative surfaces—the horizontal projection of the drainfield measured from the invert of the drainfield distribution pipe to the bottom infiltrative surface, or to 30 inches below finished grade, whichever is less.  
 (14) Total drainfield depth—the vertical distance from the bottom of the drainfield to the top of the drainfield  
 (15) Wastewater strength—the sum of the CBOD<sub>5</sub> and TSS concentrations in the effluent.

Rulemaking Authority 381.0011(4), (13), 381.0065(3)(a) FS. Law Implemented 381.0065, 381.0067, 386.041 FS. History—New 2-3-98, Amended 3-22-00, 6-18-03, 11-26-06.

3639 **64E-6.026 Applications for Innovative System Temporary Permits and Performance-Based Treatment System**  
3640 **Construction Permits.**

3641 (1) ~~Applications for innovative system permits—Before applying for any construction permits for an innovative system, the~~  
3642 ~~innovative system design shall receive an innovative system temporary permit from the Department’s Bureau of Environmental~~  
3643 ~~Health in Tallahassee.~~ Applications for innovative system temporary permits shall be made using form DH 3143. The application  
3644 and all supporting information shall be signed, dated and sealed by an engineer, ~~licensed in the State of Florida~~. Except as provided  
3645 for in ~~subsection 64E-6.028(3)~~, F.A.C., alternative drainfield materials and designs shall not be approved which would result in a  
3646 reduction in drainfield size using the mineral aggregate drainfield system as described in Section Rule 64E-6.014, F.A.C., and the  
3647 total surface area of soil at the bottom of the drainfield as the criteria for drainfield sizing comparisons. Applications shall include:

3648 (a) A monitoring protocol designed to validate that the system will perform to the engineer’s design specifications.  
3649 (b) Compelling evidence that the system will function properly and reliably to meet the requirements of this chapter and Section  
3650 381.0065, F.S. Such compelling evidence shall include one or more of ~~the following from a third-party testing organization~~  
3651 ~~approved through the NSF Environmental Technology Verification Program:~~

- 3652 1. ~~S~~ side stream testing, where effluent is discharged into a system regulated pursuant to Chapter 403, F.S.;
- 3653 2. ~~T~~ testing of systems in other states with similar soils and climates;
- 3654 3. ~~or~~ L laboratory testing.

3655 (2) Applications for performance-based treatment system, including individual innovative system, construction permits – All  
3656 information required in Part I for an application for system construction permit shall be included as part of the application for a  
3657 performance-based treatment system. All Two copies of all information shall be dated, signed and sealed by the ~~registered~~ engineer  
3658 who designed the system, and provided to the department. ~~Upon any change to the design, two copies of any revisions shall be~~  
3659 ~~provided to the department.~~ Additional information shall include the following:

3660 (a) System design criteria, to include performance levels for the performance-based system and monitoring requirements and  
3661 ~~monitoring~~ locations, and method of monitoring flow through the system. Performance levels shall be indicated in the design as  
3662 secondary treatment standards, advanced secondary treatment standards, or advanced wastewater treatment standards, or baseline  
3663 treatment.

3664 (b) System design calculations for the performance-based system.

3665 (c) System design plans and drawings for the performance-based treatment system, to include all components and method of  
3666 installation to be used in construction. A detailed to-scale installation drawing shall be included. ~~The site plan required in paragraph~~  
3667 ~~64E-6.004(3)(a), F.A.C., shall be drawn to scale.~~

3668 (d) Where soil is used as part of the treatment system, a site plan showing the direction of groundwater movement, the locations  
3669 of all effluent plume monitoring wells or devices, and the anticipated extent of the effluent plume.

3670 (e) Contingency plan for effluent to be collected and disposed of, or treated, in the event of system failure.

3671 (f) Certification of design. The design engineer shall certify the design of the system to meet all applicable performance  
3672 standards. The certification shall be as follows: “I certify that the engineering features of this performance-based treatment system  
3673 have been designed or specified by me and conform to engineering principles applicable to such projects. In my professional  
3674 judgment, this system, when properly constructed, operated and maintained, will achieve the established performance standard and  
3675 comply with all applicable statutes of the State of Florida and rules of the Department”.

3676 (g) An operation and maintenance manual shall be prepared by the design engineer and provided as part of the original design.  
3677 All changes to the operation and maintenance manual shall be approved and certified by the design engineer. A copy of any changes  
3678 shall be provided to the department office in the county for review and approval or disapproval.

3679 (h) If the design is changed, the changes must be documented, dated, signed, sealed, approved and certified by the engineer, and  
3680 provided to the department. ~~All changes to the engineering specifications shall be approved and certified by the design engineer. A~~  
3681 ~~copy of any changes shall be provided to the county health department for review for compliance with performance-based system~~  
3682 ~~standards and approval or disapproval.~~

3683 (i) ~~All changes to the operation and maintenance manual shall be approved and certified by the design engineer. A copy of any~~  
3684 ~~changes shall be provided to the county health department for review and approval or disapproval.~~

3685 (i)(j) A cover letter ~~addressed to the county health department~~ stating that the applicant wishes to apply for a performance-based  
3686 treatment system.

3687 (3) All materials incorporated herein that are not available at [flrules.org](http://flrules.org) may be reviewed at the Bureau of Environmental  
3688 Health, 4025 Esplanade Way, Tallahassee, Florida 32399-1710. All materials incorporated herein may be obtained from the Bureau  
3689 of Onsite Sewage Programs at [www.MyFloridaEH.com](http://www.MyFloridaEH.com) or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida 32399-1713.

3690 Rulemaking Authority 381.0011(4), (13), 381.0065(3)(a) FS. Law Implemented 381.0065, 381.0067, Part I 386 FS. History—New 2-3-98, Amended  
3691 6-18-03, 11-26-06, 4-28-10, \_\_\_\_.

3692 **64E-6.027 Performance-Based Treatment System Permits.**

3693 (1) **Innovative System Permit**—An application for system construction permit for an innovative system cannot be reviewed by  
3694 the Department's county health department until the ~~innovative~~ Innovative system-System permit-Temporary Permit has been  
3695 approved specifying the number of systems and time limits and issued from the Department's Bureau of Environmental Health in  
3696 Tallahassee. The department's decision to grant or deny the innovative system permit shall be based on the presence or absence of  
3697 compelling evidence that the innovative systems will function properly and reliably to meet the requirements of this chapter and  
3698 Section 381.0065, F.S.

3699 (2) **System Construction Permit**—No portion of a performance-based treatment system shall be installed, repaired, altered,  
3700 modified, abandoned or replaced until a system construction permit has been issued ~~on Form DH 4016~~. If building construction has  
3701 commenced, the system construction permit shall be valid for an additional 90 days beyond the eighteen month expiration date. A  
3702 fee shall be charged for a repair permit issued within 12 months from the date of final authorization of the performance-based  
3703 treatment system. If a construction or repair permit for a performance-based treatment system is transferred to another person, the  
3704 date of the construction or repair permit shall not be amended, but shall run from the date of original issuance prior to the transfer.  
3705 Servicing or replacing with like kind mechanical or electrical parts of a performance-based treatment system; pumping of septage  
3706 from a system; or making minor structural corrections to a tank, or distribution box, does not constitute a repair, however, all  
3707 services must be performed by the performance system maintenance entity. Any proposed change from the original design,  
3708 including increasing or decreasing changes in flow rate, shall require that the system be re-engineered to achieve the desired  
3709 performance standard under the altered conditions.

3710 (3) ~~Within 15 working days after the department receives a completed application for a performance-based treatment system,~~  
3711 ~~the county health department must either issue a permit for the system or shall notify the applicant that the system does not comply~~  
3712 ~~with the performance criteria, and refer the application to the Bureau of Onsite Sewage Programs, who shall review the application~~  
3713 ~~for a determination whether the system should be approved, disapproved, or approved with modifications. The determination of the~~  
3714 ~~engineer for the Bureau of Onsite Sewage Programs shall prevail over the action of the local county health department. All~~  
3715 ~~applications for a construction permit for an innovative system shall be reviewed for completeness by the county health department~~  
3716 ~~and referred to the Bureau of Onsite Sewage Programs for review and approval, disapproval or approval with modifications.~~

3717 (4) ~~The applicant shall be notified of the department's determination. If the permit is denied, the applicant shall be notified of~~  
3718 ~~their right to pursue a variance or seek review under the provisions of Chapter 120, F.S.~~

3719 (5) **System inspection**—Before covering with earth and ~~before~~ placing the performance-based treatment system into service, a  
3720 person installing ~~or constructing~~ any portion of the ~~performance-based treatment~~ system shall notify the ~~county health~~ department of  
3721 the completion of the construction activities and shall have the system inspected by the department for compliance with the  
3722 requirements of this chapter.

3723 (a) ~~The~~ **Prior to or concurrent with a final installation inspection by the department, the professional** engineer who designed the  
3724 system, or the design engineer's designee, shall observe the entire installation and shall certify in writing that the installed system  
3725 complies with the approved design and installation requirements. This certification shall read as follows: "I certify that the  
3726 engineering features of this performance-based treatment system have been examined by me and found to substantially comply with  
3727 all specifications contained in the engineering design that was the basis for issuance of the system construction permit. I certify that  
3728 the operation and maintenance manual for this performance-based treatment system has been prepared or examined by me or by an  
3729 individual(s) under my direct supervision and that there is reasonable assurance, in my professional judgment, that the system, when  
3730 properly operated and maintained in accordance with this manual, will achieve the established performance standard and comply  
3731 with all applicable statutory requirements and rules of the department". The certification shall be received by the department prior  
3732 to or concurrent with the departments inspection of the system.

3733 (b) ~~If the installation varies from the permitted design, the certification shall be accompanied by a drawing to depict the~~  
3734 ~~installation as built. If the installation does not vary from the permitted design, that fact shall be noted on the certification. If the~~  
3735 ~~system construction is approved after an inspection by the county health department, the department shall issue a "Construction~~  
3736 ~~Approval" notice to the installer. A drawing to depict the installation as built shall be provided to the department prior to final~~  
3737 ~~system approval.~~

3738 (c) If the system is found to not comply with the system construction permit during the construction inspection on any type of  
3739 system installation, the ~~county health~~ department shall notify the engineer. The installer shall make all required corrections and  
3740 notify the ~~county health~~ department office in the county of the completion of the work prior to reinspection of the system. A  
3741 reinspection fee shall be charged for each additional inspection leading up to construction approval.

3742 (d) Final installation approval shall not be granted until the ~~county health~~ department has confirmed that all requirements of this  
3743 chapter, including building construction and lot grading are in compliance with plans and specifications provided with the permit  
3744 application, the system maintenance entity has been identified to the ~~county health~~ department, and the property owner has executed  
3745 and recorded in the public property records at the county courthouse, a written notice that informs all subsequent property owners of  
3746 the use of the performance-based treatment system, and of the requirement for the system to be maintained, in perpetuity, in

compliance with all lawful requirements. "Approved" installation does not imply that a system will perform satisfactorily for a specific period of time.

(6) Operating permits – No residence or establishment served by a performance-based treatment system shall be occupied until Form DH 4081, "Application for Onsite Sewage Treatment and Disposal System Operating Permit" has been received and approved by the department. Where a performance-based treatment system is used, only one operating permit shall be required for the system.

(a) ~~Maintenance entities contracting to service performance-based treatment systems shall obtain a biennial operating permit from the county health department for the system. Persons operating a performance-based treatment system shall permit department personnel right of entry to the property during normal working hours to allow for effluent sampling or evaluating the general state of repair or function of the system.~~

(b) ~~The permit shall designate the performance system maintenance entity responsible for the operation and maintenance of the system. At a minimum, the performance system maintenance entity responsible for maintenance of the system shall test, or cause to be tested, the performance-based treatment system in accordance with Part IV of this rule. The operating permit shall specify the frequency of testing shall be specified on the biennial operating permit. The operating permit shall also specify and~~ the observation interval to assess the operation of the system without taking ~~monitoring~~ samples.

(c) Systems and the structures which they serve shall be inspected by the department at least once annually during the term of the biennial operating permit to determine compliance with the terms of the operating permit.

(d) A copy of the signed maintenance agreement ~~between the property owner or property lessee and an engineer-designed performance-based system maintenance entity~~ shall be provided to the ~~county health~~ department by the maintenance entity. The maintenance agreement shall:

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

2. Provide that a maintenance entity which desires to discontinue the provision of maintenance services, notify in writing, the property owners and lessees and the ~~county health~~ department at least 60 days prior to discontinuance of service.

3. Provide that, if a private maintenance entity discontinues business, property owners who have previously contracted with the discontinued maintenance service shall, within 60 days of the service termination date, contract with an approved maintenance service and provide the ~~county health~~ department a copy of the newly signed maintenance agreement.

4. Provide that each performance-based treatment system is inspected by an engineer-designed performance-based system maintenance entity at least two times each year. The maintenance entity shall furnish to the ~~county health~~ department a listing of all performance-based treatment systems inspected or serviced during the respective reporting period. As a minimum, reports shall indicate the system owner or building lessee, the street address of the system, the date of system inspection or service, ~~and a statement as to the maintenance or service performed, and~~ ~~The maintenance entity shall also include~~ a list of the owners who have refused to renew their maintenance agreement.

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

1. Evidence that the maintenance entity possesses a manufacturer's maintenance and operations manual and has received training from the manufacturer in proper installation and service of the performance-based treatment system components and has received written approval from the components' manufacturers to perform service on their components. The manual shall contain detailed instructions on proper operation and maintenance procedures, a replacement parts list for all components ~~being installed and maintained~~, a statement ~~giving of the system's capabilities of each system~~, instructions on how to detect a malfunctioning system and what to expect from a properly functioning system.

2. Documentation showing that the maintenance entity possesses a current business organization registration w/ Florida Department of State as an LLC, Inc. or as a registered fictitious name if sole proprietor.

~~3.2.~~ A signed statement from the applicant attesting that the applicant has adequate staff, possesses proper equipment and has sufficient spare structural and mechanical parts and components to perform routine system monitoring and servicing and is able to make a service response within 36 hours after notification of the need for emergency repairs.

~~4.3.~~ Payment of \$25.00 to the ~~DOH county health~~ department per annum for the ~~performance-based treatment system~~ maintenance service permit.

(7) The maintenance entity shall provide the department with documentation of any change in the current business organization registration or registered fictitious name within 30 days of the change.

~~(8)(7)~~ All materials incorporated herein that are not available at flrules.org may be reviewed at the Bureau of Environmental Health, 4025 Esplanade Way, Tallahassee, Florida 32399-1710. All materials incorporated herein may be obtained from the Bureau

of Onsite Sewage Programs at [www.MyFloridaEH.com](http://www.MyFloridaEH.com) or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida 32399-1713.

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

#### **64E-6.028 Location and Installation of Performance-Based Treatment Systems.**

Performance-based treatment systems shall be installed in compliance with the following:

(1) Systems shall receive the following setbacks to the listed feature. If no setback is specified for a specific feature, Part I requirements shall apply unless the performance-based treatment system is located in the Florida Keys. If located in the Florida Keys, Part II shall be used for all setbacks.

(a) ~~For Secondary Treatment Standards, the~~ system shall be a minimum of 65 feet from any surface water bodies or wet retention or detention area if the lot was platted on or after January 1, 1972.

(b) ~~For Advanced Secondary Treatment Standards, the~~

~~1. Surface water bodies: The~~ system shall be a minimum of 50 feet from any surface water bodies or wet retention or detention area if the lot was platted on or after January 1, 1972:

~~2. and 10 feet from a groundwater interceptor drain; 10 feet.~~

~~3. Dry-dry retention area and/or swales; 10 feet.~~

4. Where a performance-based treatment system is placed adjacent to Class II waters, setbacks that are applied to secondary treatment levels shall be applicable. Alternatively, where the fecal coliform complies with the following levels, reduced setbacks in subparagraphs 64E-6.028(1)(b)1. through 3., F.A.C., above shall be allowed.

a. System operation shall result in not more than 14 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 1.0 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.

b. The annual arithmetic mean of the fecal coliform colonies collected ~~during the annual period~~ shall not exceed 14 per 100 ml of effluent.

c. 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 14 per 100 ml ~~of sample~~.

d. No more than 10% of ~~the~~ samples collected during ~~the period of~~ 30 consecutive days shall exceed 43 fecal coliform colonies per 100 ml ~~of sample~~.

e. Any one sample shall not exceed 86 fecal coliform colonies per 100 ml ~~of sample~~.

(c) Advanced Wastewater Treatment Standards.

1. Surface water bodies: The drainfield shall be a minimum of 25 feet from any surface water bodies or wet retention or detention area. The treatment unit or process containers shall be a minimum of 50 feet from any surface water bodies or wet retention or detention area.

2. Groundwater interceptor drain: 10 feet.

3. Dry retention area and swales: 10 feet.

4. Seasonal high water table to bottom of drainfield: 12 inches.

(2) Systems designed to meet secondary treatment standards shall be allowed to exceed their authorized lot sewage flow allowances by up to 25%. Systems designed to meet advanced secondary treatment standards shall be allowed to exceed their authorized lot sewage flow allowances by up to 50%. Systems designed to meet advanced wastewater treatment standards shall be allowed to exceed their authorized lot sewage flow allowance by up to 100%. For example, if authorized lot flow is 200 gallons per day, a total of 300 gallons per day lot flow will be allowed for systems designed to meet advanced secondary treatment standards.

(3) Hydraulic surge storage – the design shall protect the residence from backflow into the treatment tank. For gravity and pumped systems, the following shall apply:

(a) For aggregate systems, the porosity shall be calculated at 33%.

(b) The effective storage volume of the drainfield shall be equal to or greater than 1.5 times the design daily flow.

(c) The total storage volume of the drainfield shall be equal to or greater than 1.8 times the design daily flow.

(4) Infiltrative surface area reductions shall be allowed for systems designed to reduce the wastewater strength of the effluent where the drainfield is sized based on slightly limited soils. ~~The baseline system shall be used for comparison with a typical average CBOD<sub>5</sub> of 140 mg/L and TSS of 105 mg/L.~~ The maximum reduction ~~in infiltrative surface area~~ shall not exceed the following standards.

(a) ~~Where CBOD<sub>5</sub> and TSS meet s~~Secondary treatment standards: 25% reduction.

(b) ~~Where CBOD<sub>5</sub> and TSS meet a~~Advanced secondary treatment standards: 40%.

~~(c) Advanced wastewater treatment standards: 40%.~~

Rulemaking Authority 381.0065(3)(a) FS. Law Implemented 381.0065, 386.041 FS. History—New 2-3-98, Amended 3-22-00, 6-25-09, \_\_\_\_.

**64E-6.029 Monitoring of Performance-Based Treatment Systems.**

Monitoring requirements – All performance-based treatment systems shall be monitored in compliance with the requirements in this section. If soil is considered part of the treatment system ~~in any performance-based standard~~, monitoring points in the effluent plume within the boundaries of the property must be in compliance with the minimum criteria for total nitrogen, total phosphorous and fecal coliform.

(1) Advanced wastewater treatment systems.

(a) A maintenance report shall be kept by the performance system maintenance entity. A copy of all maintenance reports shall be provided to the ~~county health~~ department office in the county on monthly intervals, to begin one month after system operation has started. After the first six reports are provided to the ~~county health~~ department, reports shall be provided once every three months. All reports must be legible. The report shall include the following information:

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

8. During the first six months of system operation, or after the system has failed, systems shall be monitored a minimum of once every two weeks. Monitoring shall include sampling for CBOD<sub>5</sub>, TSS, TN, TP and fecal coliform. Monitoring shall occur at the time the system is expected to be at capacity, or as close to capacity as possible. Re-sampling within 48 hours of receipt of laboratory results shall be allowed on all samples that exceed design parameters in order to evaluate the validity of the original sample results. If the re-sample is in compliance with the appropriate performance-based standard, the original result shall be disregarded.

Laboratories must be approved by the department or the Department of Environmental Protection for all analyses performed. All results shall be certified by the laboratory.

a. If any two consecutive samples exceed design treatment standards by more than 100%, the system design and operation shall be inspected by the design engineer for conformance with permitting requirements, and shall be adjusted to bring the effluent quality into compliance with permitting requirements. Monitoring shall be increased to once per week, or more if the design engineer specifies such, until such time the violation is corrected. When two consecutive samples are within 100% of the design parameters, monitoring shall be reduced to once every two weeks. For example, if the design parameter is 10 mg/L CBOD<sub>5</sub>, a reading of 20 mg/L CBOD<sub>5</sub> exceeds the standard by 100%.

b. After a six month period of compliance with all applicable performance standards, sampling shall be performed quarterly.

c. When an applicant installs a system designed to meet advanced wastewater treatment standards, the monitoring frequency shall be reduced by 50% if only one of the following three location and installation requirements is used and the other two remain at the standards required of prescriptive systems. The three requirements are:

- (I) Setbacks required in paragraphs 64E-6.028(1)(a) and (b)-(e), F.A.C.
- (II) Seasonal high water table subparagraph 64E-6.028(1)(c)4., F.A.C.
- (III) Authorized lot flow subsection 64E-6.028(2), F.A.C.

(b) When four consecutive biweekly ~~once every two week~~ samples from a system are at or below the applicable standard, sampling frequency shall be reduced to quarterly.

(c) When eight consecutive quarterly samples from a system are below the applicable standard, sampling frequency shall be reduced to once every six months.

(d) All reports of operating permit violations shall be reported to the department within five working days.

(e) If the system cannot be brought into compliance with design parameters, the contingency plan required in 64E-6.026(2)(e), F.A.C., shall be implemented~~must be enforced~~.

(f) All failures of the performance-based treatment system shall be reported to the ~~county health~~ department by the maintenance entity within one working day from discovery of failure. The testing laboratory shall mail copies of all results to the ~~county health~~ department.

(g) Testing performed during periods of system non-use that exceed one week, shall not qualify as legitimate samples for purposes of compliance with any provisions of this rule.

(2) Secondary treatment systems and advanced secondary treatment systems.

(a) A maintenance report shall be kept by the performance system maintenance entity. A copy of all maintenance reports shall be provided to the ~~county health~~ department on quarterly intervals. All reports must be legible. The report shall include the items required in subparagraphs 64E-6.029(1)(a)1., 2., 5., 6. and 7., F.A.C., in addition to the following information:



1. Ponding depth observed through drainfield observation ports or, when the drainfield design prevents direct measurement of ponding depth, CBOD<sub>5</sub> and TSS results for samples collected at a point prior to the discharge to the drainfield.
2. If system performance is necessitated by setback reductions or lot flow allowances provided in 64E-6.028(1) or (2), F.A.C.:
- Sampling results for Fecal Coliform from Secondary Treatment Systems.
  - Sampling results for Nitrogen, Phosphorous and Fecal Coliform from Advanced Secondary Treatment Systems.
  - Collection time and date of all samples.
  - Name of the person who collected samples.
- (b) All reports of operating permit violations shall be reported to the department within five working days.
- (c) If the system cannot be brought into compliance with design parameters, the owner must implement the contingency plan ~~must be implemented by the system owner.~~
- (d) All failures of the performance-based treatment system shall be reported to the ~~county health~~ department by the maintenance entity within one working day from discovery of failure. The testing laboratory shall mail copies of all results to the ~~county health~~ department.
- (3) Florida Keys nutrient reduction treatment systems shall be monitored and sampled in accordance with Part II of this chapter.
- (4) All systems with drainfields designed under subsection 64E-6.028(3) and (4)-(5), F.A.C., shall be monitored via placing a minimum of two observation ports in the drainfield. Monitoring will consist of recording depth of effluent ponding in the drainfield in at least two places on a quarterly basis.
- (5) If soil is considered part of the treatment system in any performance-based standard, two monitoring points in the effluent plume within the boundaries of the property must be in compliance with the performance level specified by the design engineer.
- (6) Any performance-based treatment system that is out of compliance with the terms of the operating permit shall be re-engineered ~~by an engineer registered in the State of Florida.~~ The system shall be brought into compliance with treatment standards required at the time of system permitting.
- (7) Innovative systems shall be monitored in accordance with the ~~design~~ engineer's protocol submitted with the application as approved by the department. All monitoring and sampling shall be ~~performed at the applicant's expense of the applicant. At a minimum,~~ the monitoring protocol shall:
- Determine if baseline standards are being met.
  - Address the monitoring for any contaminant being reduced.
  - Address the monitoring of any site condition being modified.
- (8) The following shall be considered as violations of the performance-based treatment system operating permit:
- ~~The failure to maintain equipment in a condition which will enable the intended function.~~
  - The submission by neglect or knowingly, by the owner, manager or maintenance entity of a performance-based treatment system, or agent or employee thereof, of misleading, false, or inaccurate information or ~~operational~~ reports to the department, ~~either knowingly or through neglect.~~
  - The submission of fraudulent data produced with an intention to deceive including the following:
    - ~~Apparent measurement or test results where no measurement or testing was actually performed, for which no measurement or test results were actually made as determined by.~~ The department will consider the absence of the credible supporting documentation as an indicator that data is fraudulent records which are usually made.
    - Measurements or test results obtained by deliberately and knowingly making measurements or collecting samples at places and times other than as specified in this chapter.
    - Test results obtained through use of unapproved and erroneous sampling, preservation, storage, or analysis procedures.
    - Computational errors, misunderstandings of required procedures and other common errors are excluded.

Rulemaking Authority 381.0011(13), 381.006, 381.0065(3)(a) FS. Law Implemented 381.0065, 381.0067, 386.041 FS. History—New 2-3-98, Amended 3-22-00, 6-18-03.

#### **64E-6.0295 Innovative System Reclassification.**

- (1) Following the installation and monitoring of the number of systems allowed by the innovative system permit, the applicant may request reclassification of their innovative system by the Bureau of Environmental Health Onsite Sewage Programs. Requests for reclassification as an alternative system component and design shall be made in accordance with subsection 64E-6.009(7), F.A.C. Requests for reclassification as a performance-based treatment system shall include the following:
- Results and analysis of monitoring of the systems installed.
  - Observations of system performance.
  - Maintenance, repairs or modifications performed on any systems.
  - Comments from the system operators or users.
  - Comments from the design engineers who designed the individual system designs.



(f) Comments from the ~~county health~~ departments offices in the counties where the systems were installed.  
 (g) Specification of the proposed classification as performance-based.  
 (h) Rationale for the proposed ~~type of~~ classification desired.  
 (i) Proposed monitoring protocol.  
 (j) A sample manual addressing the siting, design, installation, inspection, operation, maintenance and abandonment procedures.  
 (2) The ~~Bureau of Onsite Sewage Programs~~ department shall process the request in accordance with Chapter 120, F.S. The department shall approve the request only if the department is satisfied that the system will reliably perform to the standards desired under normal operating conditions as demonstrated by the information provided.

Rulemaking Authority 381.0011(13), 381.006, 381.0065(3)(a) FS. Law Implemented 381.0065, 381.0067, 386.041 FS. History--New 6-18-03, \_\_\_\_\_.

#### 64E-6.030 Fees.

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

(a) Application and plan review for construction permit for new system.	\$100
(b) Application and approval for existing system, if system inspection is not required.	\$35
(c) Application and Existing System Evaluation.	\$50
(d) Application for permitting of a new performance-based treatment system.	\$125
(e) Site evaluation.	\$115
(f) Site re-evaluation.	\$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 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 <del>for</del> 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.	<del>\$115</del> <del>\$200</del>
(u) Aerobic treatment unit maintenance entity permit per annum.	\$25
(v) Variance Application for a single family residence per <del>each lot or</del> lot or building site.	\$200
<del>(w) Variance Application for a multi-family or commercial building per</del> building site.	\$300
<del>(x) Application for innovative product approval.</del>	\$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) <del>Annual</del> Renewal of registration.	\$100
(d) Certificate of authorization each two-year period.	\$250

Rulemaking Authority 154.06(1), 381.0066, 489.557(1) FS. Law Implemented 381.0065, 381.0066, 489.557 FS. History--New 2-3-98, Amended 3-22-00, 4-21-02, 5-24-04, 11-26-06, 9-24-07, \_\_\_\_\_.

14-02--Issue Status--Documentation to Homeowners.txt

Issue Number: 14-02

Subject: Documentation to Homeowners

Date New: 11/6/2014

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:

Ready for Inclusion in Rule: NO

Issue Development Notes:

None

Related to discussion on issue 12-02:

Ms. Tucker would like a statement in an appropriate place in the rule to clarify to homeowners that permitting and approval documents are available from the department.

Additionally, she would like for contractors to provide homeowners with copies of certifications or other approval-type documents made by them related to the homeowner's system.

64E-6.001(6) Applications, permits, inspections, and related documents are public records and may be obtained by contacting the Department through its local health departments. Contractors shall provide system owners with copies of evaluations and certifications made by them related to system permitting and maintenance activities.

15-03--Issue Status--Collection and Hauling Logs for Septage Disposal Services Trucks.txt

Issue Number: 15-03

Subject: Collection and Hauling Logs for Septage Disposal Services Trucks

Date New: 8/19/2015

Date Initially Heard by TRAP: 10/22/2016

Date Tabled by TRAP: 10/22/2016

Date Initially Approved by TRAP:

Date Heard by Variance Committee:

Date of TRAP Final Recommendation:

TRAP Final Recommendation:

Ready for Inclusion in Rule: NO

Issue Development Notes:

10/22/2016 - Tabled for more info from FOWA

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

(1) through (6) No change

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

(e) All septage and food establishment sludge haulers regulated by Chapter 64E-6, F.A.C., are to maintain and carry with them at all times within each septage disposal services (SDS or pump-out) truck licensed by the Department a collection and hauling log or log book, at the treatment site or at the main business location

1. The log shall~~which~~ provides the information listed below: ~~Records shall be retained for five (5) years.~~

a.1. Date of septage or waste collection;

b.2. Address of collection;

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

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

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

e.6. Location of the approved treatment facility;

f.7. Date and time of discharge to the treatment facility; and

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

2. Log entries shall be recorded chronologically and contemporaneously with each waste collection or discharge service. A separate collection and hauling log or ledger shall be maintained at the treatment site or main business location and updated on a daily basis and entered in chronological order.

3. Receipts shall be provided to all home, business, or property owners for all septic tank contractor services provided. Receipts shall include the company name, date, amount and form of payment, a list of the services provided, and the employee name and signature.

4. All log records and receipts shall be retained for five (5) years.

(f) to (v) No change.

(8) to (10) No Change.

*Rulemaking Authority 381.0065(3)(a), 489.553(3) FS. Law Implemented 381.0065, 386.041, 373.4595 FS. History--New 12-22-82, Amended 2-5-85, Formerly 10D-6.52, Amended 3-17-92, 1-3-95, 5-14-96, Formerly 10D-6.052, Amended 3-22-00, 5-24-04, 11-26-06, 6-25-09, 4-28-10, \_\_\_\_\_.*

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15-04--Issue Status--Non Employment of Septic Tank Contractors with Suspended Revoked Licenses.txt

Issue Number: 15-04

Subject: Non-Employment of Septic Tank Contractors with Suspended/Revoked Licenses

Date New: 10/2/2015

Date Initially Heard by TRAP: 11/22/2016

Date Tabled by TRAP: 11/22/2016

Date Initially Approved by TRAP:

Date Heard by Variance Committee:

Date of TRAP Final Recommendation:

TRAP Final Recommendation:

Ready for Inclusion in Rule: NO

Issue Development Notes:

11/22/2016 Tabled for rewording regarding employer's responsibility to not hire and employee's responsibility to disclose. DWH

**64E-6.022 Standards of Practice and Disciplinary Guidelines.**

(1) It shall be the responsibility of persons registered under this rule to see that work for which they have contracted and which has been performed by them or under their supervision is carried out in conformance with the requirements of all applicable Florida Statutes and Chapter 64E-6, F.A.C. The following actions by a person included under this rule shall be deemed unethical and subject to penalties as set forth in this section. The penalties listed shall be used as guidelines in disciplinary cases, absent aggravating or mitigating circumstances and subject to other provisions of this section.

(a) through (s) No change

(t) Hiring, employing, contracting or subcontracting with a septic tank contractor or septic tank company whose registration or business authorization has been suspended or revoked. First violation, letter of warning or fine up to \$500; repeat violation, 90 day suspension or revocation.

(u) Providing septic tank contracting services with a suspended or revoked registration or business authorization. First violation, court injunction and fine up to \$5,000 (with continued revocation); repeat violations, injunctions and fines up to \$10,000 (with continued revocation).

(v) The absence of any violation from this section shall be viewed as an oversight, and shall not be construed as an indication that no penalty is to be assessed.

(2) Circumstances which shall be considered for the purposes of mitigation or aggravation of penalty shall include the following:

(a) Monetary or other damage to the registrant's customer, in any way associated with the violation, which damage the registrant has not relieved, as of the time the penalty is to be assessed.

(b) Actual job-site violations of this rule or conditions exhibiting gross negligence, incompetence or misconduct by the contractor, which have not been corrected as of the time the penalty is being assessed.

(c) The severity of the offense.

(d) The danger to the public.

(e) The number of repetitions of the offense.

(f) The number of complaints filed against the contractor.

(g) The length of time the contractor has practiced and registration category.

(h) The actual damage, physical or otherwise, to the customer.

(i) The effect of the penalty upon the contractor's livelihood.

(j) Any efforts at rehabilitation.

(k) Any other mitigating or aggravating circumstances.

(3) As used in this rule, a repeat violation is any violation on which disciplinary action is being taken where the same licensee had previously had disciplinary action taken against him or received a letter of warning in a prior case. This definition applies regardless of the chronological relationship of the violations and regardless of whether the violations are of the same or different subsections of this rule. The penalty given in the above list for repeat violations is intended to apply only to situations where the repeat violation is of a different subsection of this rule than the first violation. Where the repeat violation is the very same type of violation as the first violation, the penalty set out above will generally be increased over what is shown for repeat violations.

(4) Where several of the above violations shall occur in one or several cases being considered together, the penalties shall normally be cumulative and consecutive.

(5) Any person whose septic tank contractor registration or business authorization has been suspended or revoked is prohibited from providing septic tank contracting services as described under Chapter 64E-6, F.A.C., or from working or contracting with a registered septic tank contractor, authorized septic tank business, licensed plumber, or licensed general contractor to provide septic tank contracting services as described under Chapter 64E-6, F.A.C.

(6) The provisions of this section shall not be construed so as to prohibit civil action or criminal prosecution as provided in Part III of Chapter 489, F.S., and Section 381.0065, F.S., or for a violation of any provision of Part I of Chapter 386, F.S. No provision of this section shall be construed as to limit the ability of the department to enter into binding stipulation with the accused party per subsection 120.57(4), F.S.

*Rulemaking Authority 381.0011(4), (13), 381.0065(3)(a), 489.553(2), (3), 489.556, 489.557 FS. Law Implemented Part III 489 FS. History--New 3-17-92, Amended 1-3-95, 2-13-97, Formerly 10D-6.0751, Amended 2-3-98, 5-24-04.*

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15-05--Issue Status--Disciplinary Standards for Voluntary Inspections.txt

Issue Number: 15-05

Subject: Disciplinary Standards for Voluntary Inspections

Date New: 9/18/2015

Date Initially Heard by TRAP: 10/22/2015

Date Tabled by TRAP: 10/22/2015

Date Initially Approved by TRAP:

Date Heard by Variance Committee:

Date of TRAP Final Recommendation:

TRAP Final Recommendation:

Ready for Inclusion in Rule: NO

Issue Development Notes:

10/22/2015 Tabled for more clarity. DWH

**64E-6.022 Standards of Practice and Disciplinary Guidelines.**

(1) It shall be the responsibility of persons registered under this rule to see that work for which they have contracted and which has been performed by them or under their supervision is carried out in conformance with the requirements of all applicable Florida Statutes and Chapter 64E-6, F.A.C. The following actions by a person included under this rule shall be deemed unethical and subject to penalties as set forth in this section. The penalties listed shall be used as guidelines in disciplinary cases, absent aggravating or mitigating circumstances and subject to other provisions of this section.

(a) through (o) No change

(p) Installation, modification, inspection, evaluation, assessment, or repair of an onsite sewage treatment and disposal system in violation of the standards of Section 381.0065 or 381.00655, F.S., or Chapter 64E-6, F.A.C. First violation, letter of warning or fine up to \$500 per specific standard violated; repeat violation, 90 day suspension or revocation.

(q) through (t) No change

(2) through (5) No change

*Rulemaking Authority 381.0011(4), (13), 381.0065(3)(a), 489.553(2), (3), 489.556, 489.557 FS. Law Implemented Part III 489 FS. History—New 3-17-92, Amended 1-3-95, 2-13-97, Formerly 10D-6.0751, Amended 2-3-98, 5-24-04, \_\_\_\_\_.*

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15-06--Issue Status--Personal Misconduct of Septic Tank Contractors.txt

Issue Number: 15-06

Subject: Personal Misconduct of Septic Tank Contractors

Date New: 10/13/2015

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:

Ready for Inclusion in Rule: NO

Issue Development Notes:

None

1       **64E-6.022 Standards of Practice and Disciplinary Guidelines.**  
2       (1) It shall be the responsibility of persons registered under this rule to see that work for which they have contracted and  
3 which has been performed by them or under their supervision is carried out in conformance with the requirements of all  
4 applicable Florida Statutes and Chapter 64E-6, F.A.C. The following actions by a person included under this rule shall be  
5 deemed unethical and subject to penalties as set forth in this section. The penalties listed shall be used as guidelines in  
6 disciplinary cases, absent aggravating or mitigating circumstances and subject to other provisions of this section.  
7       (a) through (s) No change  
8       (t) Behaving in a verbally, written, or physically abusive manner that has the purpose or effect of unreasonably interfering  
9 with the performance of a Department employee or that creates an intimidating, hostile, or offensive environment. First  
10 violation, letter of warning or fine up to \$500 per specific standard violated; repeat violation, 90 day suspension or revocation.  
11       (u)(+) The absence of any violation from this section shall be viewed as an oversight, and shall not be construed as an  
12 indication that no penalty is to be assessed.  
13       (2) through (5) No change  
14       *Rulemaking Authority 381.0011(4), (13), 381.0065(3)(a), 489.553(2), (3), 489.556, 489.557 FS. Law Implemented Part III 489*  
15 *FS. History—New 3-17-92, Amended 1-3-95, 2-13-97, Formerly 10D-6.0751, Amended 2-3-98, 5-24-04, \_\_\_\_\_.*

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16-01--Issue Status--Drip Emitter System Slope.txt

Issue Number: 16-01

Subject: Drip Emitter System Slope

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

**64E-6.009 Alternative Systems.**

(1) through (4) No change

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

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

1. through 19. No change

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

21. through 25. No change

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

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

(b) No change

(6) through (10) No change

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

16-02--Issue Status--Contractors providing receipts for OSTDS Services.txt

Issue Number: 16-02

Subject: Contractors providing receipts for OSTDS Services

Date New: 2/16/2016

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:

Ready for Inclusion in Rule: NO

Issue Development Notes:

None



1       **64E-6.022 Standards of Practice and Disciplinary Guidelines.**

2       (1) It shall be the responsibility of persons registered under this rule to see that work for which they have contracted and  
3 which has been performed by them or under their supervision is carried out in conformance with the requirements of all  
4 applicable Florida Statutes and Chapter 64E-6, F.A.C. Receipts shall be provided at the time of payment to all permit  
5 applicants or agents for all septic contractor contractor services provided. Receipts shall be legible and include the company  
6 name, date, amount and form of payment, a list of services provided or contract reference that includes the required  
7 information, and the printed name and signature of the employee providing the services or receipt. Where a contractor or their  
8 employee provides a bid or proposal for any job, it shall be provided in writing, shall be legible and include the company name,  
9 date, proposed beginning and ending dates for all work to be performed, an itemized accounting of the services to be provided  
10 and a cost for each service. Contractors shall be bound by any bid or proposal given by their employee. The following actions  
11 by a person included under this rule shall be deemed unethical and subject to penalties as set forth in this section. The penalties  
12 listed shall be used as guidelines in disciplinary cases, absent aggravating or mitigating circumstances and subject to other  
13 provisions of this section.

14       (a) through (t) No change

15       (u) Failure to provide proper receipts, bids or proposals. First violation, letter of warning or fine up to \$500; repeat  
16 violation, letter of warning or fine up to \$500 and a 90 day suspension or revocation.

17       (2) through (5) No change

18       *Rulemaking Authority 381.0011(4), (13), 381.0065(3)(a), 489.553(2), (3), 489.556, 489.557 FS. Law Implemented Part III 489*  
19 *FS. History—New 3-17-92, Amended 1-3-95, 2-13-97, Formerly 10D-6.0751, Amended 2-3-98, 5-24-04,\_\_\_\_\_.*

16-03--Issue Status--NSF 245 Nitrogen reducing ATU s.txt

Issue Number: 16-03

Subject: NSF 245 Nitrogen reducing ATU's

Date New: 11/10/2016

Date Initially Heard by TRAP: 12/9/2016

Date Tabled by TRAP:

Date Initially Approved by TRAP: 12/9/2016

Date Heard by Variance Committee: 3/2/2017

Date of TRAP Final Recommendation:

TRAP Final Recommendation:

Ready for Inclusion in Rule: NO

Issue Development Notes:

12/9/2016 Approved to go to Variance Committee. TRAP wants to see more information on sizing issue when it returns.

3/2/2017 Presented issue to Variance committee and received comments: REI, DOH - OK; STI - Agree; CHD- Support with no comments; ENG, DEP - No comment

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

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

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

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

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

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

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

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

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

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

1. A padlock.

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

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

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

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

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

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

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

TABLE 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	<del>500</del> 400
4	2251-3300	<del>600</del> 500

For each additional bedroom or each additional 750 square feet of building area, or fraction thereof, treatment capacity shall be increased by ~~60~~400 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

Footnotes to Table IV

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

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

(f) There shall be no bypass capability designed into the system which will allow waste to be discharged to the drainfield without undergoing all the treatment processes necessary to achieve the desired effluent quality. Bypassing, removing, or excluding any component or components of a system after the system has received final installation approval is prohibited. For units discharging into alternative systems according to 64E-6.009(5), the designing engineer may specify recirculation up 50% of the disposal rate.

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

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

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

(j) Manufacturers shall provide a listing of approved maintenance entities they have authorized to

provide service in the state and shall demonstrate that the entire state is covered by at least one maintenance entity. A system using a manufacturer's unit shall not be approved in the state if the manufacturer cannot demonstrate that there are maintenance entities to service it.

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

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

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

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

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

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

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

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

(3) An aerobic treatment unit used for treating domestic or commercial sewage flows in excess of 1500 gallons per day, or a combination of aerobic treatment units treating flows according to 64E-6.004(4)(a) or (b), F.A.C. shall be designed and certified by an engineer licensed in the State of Florida. The design shall include an assessment of wastewater strength. The certification shall state that the unit is capable of consistently meeting, at minimum, secondary treatment standards for CBOD<sub>5</sub> and TSS established by DEP in Rule 64E-6.025(12)(a) 62-600.420, F.A.C. In addition, the following requirements shall also be met:

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

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

~~(b)(c)~~ A permitted aerobic unit maintenance entity ~~with a minimum Class D certified operator, or a system owner or lessee holding at minimum a Class D certification under the provisions of Chapter 61E12-41, F.A.C.,~~ shall collect effluent quality samples and submit the sample analysis reports to the DOH county health department. Effluent quality samples for CBOD<sub>5</sub>, and suspended solids ~~and fecal coliform~~ shall be collected at least semi-annually and such samples shall be analyzed by a department-approved laboratory.

~~(c)(d)~~ Written sample analysis reports shall be submitted to the DOH county health department by no later than the 15th of the next month following the semi-annual sampling period. However, if the sample analysis for CBOD<sub>5</sub> or suspended solids exceeds secondary treatment standards by more than 100 percent, the maintenance entity or certified operator shall notify the DOH county health department by telephone or

in person within 24 hours after receipt of sample analysis results.

~~(d)(e)~~ The DOH county health department shall monitor the maintenance and performance of aerobic treatments units as required by paragraph 64E-6.012(2)(m), F.A.C.

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

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

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

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

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

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

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

**# 19-08      ISSUE FOR TECHNICAL REVIEW AND ADVISORY PANEL CONSIDERATION**

Printed 12/5/2019 9:03:22 AM

Next Trap Meeting: 12/10/2019

**Subject: Innovative System Permit Process**

**Rule Sections: 64E-6.001; 6.002; 6.004;6.009; 6.0152 6.012; 6.025; 6.026; 6.027; 6.028;  
6.029; 6.0295**

Issue: The current issue addresses the need for a standardized streamlined process to more expeditiously issue permits for innovative systems. The application process according to Chapter 120, of the Florida Statutes, can be lengthy and the Department would like to have a process identified in rule, which would provide a more timely process. Formerly TRAP Issues 08-09 and 10-11.

Issue Originated By: Ed Barranco

Purpose and Effect The proposed changes will Reduce Common Roadblocks to Permitting, Address Common Rule Violations in Code, Provide Clearer Expectations, as well as, Standardize Monitoring Protocols and Evaluation Criteria.

Proposed Rule Change: (See Attached)

Summary: Reduce Common Roadblocks to Permitting  
Address Common Rule Violations in Code  
Provide Clearer Expectations  
Standardize Monitoring Protocols and Evaluation Criteria

Possible Financial Impacts: None.

Date New: 5/3/2019

Initially Reviewed by Trap: 8/27/2019

Tabled by Trap: 8/27/2019

Trap Review Finished: 8/27/2019

Variance Committee Reviewed: 11/7/2019

Trap Review Variance Comments: 11/7/2019

Trap Final Decision: 12/10/2019

Final Outcome:

Comments: Discussed by TRAP 5/28/19  
Proposed language being presented at 8/27/19 meeting.  
On 8/27/19 the very rough draft language was presented. They made many great comments and had many good discussions. The decision was made to have DOH take the language back and make some edits and then represent the changes at the next TRAP meeting in September. RE 8/29/19  
Must be ratified at 9/30/19 meeting due to issue with FAR advertisement. RE 9/30/19 meeting ratified. Issue 19-08 presented a second time at 9/30/19



meeting. Passed TRAP with clarification edits. Issue ready for variance committee.RE

11/7/19 received two comments from the Variance Board, one suggesting a change. Edit made. RE12/2/19

Ready for Rule

☐

In Rule

☐

Rule Date:

## TRAP Issue 19-08

### Innovative System Permit Process

- 1 64E-6.001 General
- 2 64E-6.004 Application for System Construction Permit
- 3 64E-6.009 Alternative Systems
- 4 64E-6.0152 Innovative Systems
- 5 64E-6.025 Definitions
- 6 64E-6.026 Applications for Innovative System Permits and System Construction Permits
- 7 64E-6.027 Permits
- 8 ~~64E-6.0295 Innovative System Reclassification~~

#### 9 **64E-6.001 General.**

10 (1) The provisions of Part I (rules 64E-6.001-6.016, F.A.C.) of this chapter apply to all areas of the  
11 state except where specific provisions in part II (rules 64E-6.017-6.0182, F.A.C.), addressing the Florida  
12 Keys, or specific provisions in part IV (rules 64E-6.025-6.029~~5~~, F.A.C.), addressing performance-based  
13 treatment systems, exempt or modify compliance with part I. Part III (rules 64E-6.019-6.023, F.A.C.)  
14 addresses the registration of septic tank contractors and authorization of partnerships and corporations.  
15 Part V (rule 64E-6.030, F.A.C.) addresses fees for services throughout the chapter. The provisions of this  
16 chapter must be used in conjunction with chapter 381 and part III of chapter 489, F.S.

17 (2) though (7) No change.

18 *Rulemaking Authority 381.0065(3)(a), 489.553(3), 489.557(1) FS. Law Implemented 381.0065, 381.0067,*  
19 *386.041, 489.553 FS. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.41, Amended 3-17-92, 1-*  
20 *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-*  
21 *26-06, 6-25-09, 4-28-10, 7-16-13, XX-XX-XX.*

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

(1) through (7) No change.

(8) Innovative Systems must be permitted per rule 64E-6.0152, or new product approval for onsite sewage treatment and disposal systems shall be initiated by submittal of an application for permit using Form DH 3143, Jan. 94, hereby incorporated by reference. DOH county health departments are authorized to issue installation permits upon receipt of the temporary permit. Form DH 3144, Jan 94, and Form DH 3145, Jan 94, hereby incorporated by reference, shall be used to record information that describes notification requirements between the temporary permit applicant, the DOH county health department, and the State Health Office. These forms are to be processed by the DOH county health departments.

(9) No change.

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

**64E-6.009 Alternative Systems.**

(1) through (7) No change.

(8) Alternative system component and design approval – ~~After innovative system testing is completed, R~~requests for approval of system components and designs which are not specifically addressed in this chapter and not required to comply with rule 64E-6.0152 must be in writing and shall be submitted to the department's Bureau of Onsite Sewage Programs Office.

(a) Requests for non-innovative alternative system component material and design approval ~~must~~ shall include:

1.-Detailed drawings and design and material specifications for the component; Detailed system design and construction plans by an engineer licensed in the State of Florida;

2.-Proposed monitoring procedures; and Certification of the performance capabilities of the product submitted by an engineer licensed in the state of Florida;

48 3. An owner's manual, an installation manual, an operation and maintenance manual, and inspection  
49 procedures. Research supporting the proposed system materials;

50 4. Empirical data showing results of innovative system testing in the State of Florida; and;

51 5. A design, installation and maintenance manual showing how to design and install the system in  
52 accordance with this chapter for standard, filled, mounded, gravity-fed, dosed, bed and trench  
53 configurations.

54 (b) through (c) No change.

55 (d) For disposal components, the proposed comparability rating must not exceed 2.5. The  
56 comparability rating is the ratio of the design value of an absorption surface of mineral aggregate to the  
57 actual absorption surface of the disposal component. Except as provided for in Part IV of this chapter,  
58 alternative drainfield materials and designs shall not be approved which would result in a reduction in  
59 drainfield size using the mineral aggregate drainfield system as described in rule 64E-6.014, F.A.C., and  
60 the total surface area of soil at the bottom of the drainfield as the criteria for drainfield sizing comparisons.  
61 For disposal alternative components where treatment and disposal coexist, additional reductions per Rule  
62 64E-6.028(4), F.A.C., are not permitted. Alternative system component and design approvals shall not be  
63 granted for the following items:

64 1. Those which, in whole or in part, are used to achieve a more advanced level of treatment than the  
65 baseline treatment level specified in part IV of this chapter,

66 2. Aerobic treatment units,

67 3. Septic tank designs, filters, seals, and sealants,

68 4. Additives,

69 5. Header and drainfield pipe, including their layout; and,

70 6. Water table separation and setback requirements.

71 (e) No change.

(f) Prior to the installation of the first **alternative** system component in each county, the manufacturer of an alternative system component, or their agent that has been authorized in writing, must provide training on the system component to the Onsite Sewage Program Office and at least one certified inspection staff of the county health department. **Training must include installation procedures**, and be provided free of charge.

**Commented [ERL1]:** Variance (Alt) Member Roxanne Groover commented: Approved. Still believe this will cause a challenge. Especially with DOH staff.

(9) through (11) No change.

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

#### **64E-6.0152 Innovative Systems**

(1) Prior to an innovative system being used in any manner with an onsite sewage treatment and disposal system, the applicant **proposing** to have the innovative system approved for use in Florida must make application to the Onsite Sewage Program Office (OSP) using Form DH 3143, 08/19, herein incorporated by reference. If all applicable requirements are met, an Innovative System Permit (ISP) will be issued by the OSP. The ISP will be for a specified testing period and contain requirements for the innovative system to be installed. The department's Protocol on Innovative Systems, October 2019, is hereby incorporated by reference, and is referred to as "Protocol" in this section.

(2) Innovative system applications require a demonstration of the innovative product's efficacy prior to the testing in paragraph (2)(a), below. Where data from previous testing only meets the criteria in 4.B. of the Protocol, the applicant must install and monitor one system to demonstrate the innovative product's efficacy; or the applicant may provide sufficient data as defined by Protocol. Once the innovative product's efficacy has been determined, additional system testing is required as stated in this section.

(a) No less than three innovative systems for treatment components and fifteen innovative systems for disposal components **will be tested** for a specified time period to be determined based on the individual application, to demonstrate the system will function properly and reliably to meet the requirements of this chapter and section 381.0065, FS. The maximum number of systems allowed under

100 the ISP will be twelve for treatment components and seventy for disposal components. Modifications to  
101 innovative system design is not allowed during testing required by this subsection.

102 (b) During innovative system testing, the innovative product must be tested as constructed by, and in  
103 the manner intended for use by the manufacturer. When installed, the entire system, including the  
104 innovative product itself, must comply with all required setbacks, separation to seasonal high water table,  
105 effective soil depth and loading rates. For disposal components, the proposed comparability rating must  
106 not exceed 2.5. The comparability rating is the ratio of the design value of an absorption surface of  
107 mineral aggregate to the actual absorption surface of the innovative disposal component. Any other  
108 regulatory requirement that is not part of the innovative product or does not have direct bearing on the  
109 innovative product being tested must be installed in compliance with all applicable regulations.

110 (c) Treatment components, which have already been approved and will be installed as meeting the  
111 requirements of rule 64E-6.012(1), are not required to obtain an ISP, provided the treatment component's  
112 proposed performance, as a performance-based treatment system, is not better than the certified  
113 treatment component's average performance reported for CBOD<sub>5</sub>, TSS, and total nitrogen reduction in  
114 the applicable NSF standard completion reports.

115 (3) The applicant for the ISP will be the permit holder and will be held responsible for all information  
116 supplied to the department. The signed application and submission of all required information serve as  
117 the basis by which the department determines the issuance of the ISP. Applications for an ISP must be  
118 made to the OSP on Form DH 3143 08/19 and must be accompanied by all required exhibits and fees,  
119 including all information required in the Protocol. Once the ISP has been issued, no modifications are  
120 allowed to the ISP application. While the permit is entitled an ISP, and the entire system can be  
121 innovative, it is recognized that where the innovative part is an individual item placed within and intended  
122 to be used as part of or in conjunction with the system, and not the entire system, that individual item is  
123 that part which is termed innovative.

124 (a) The applicant must respond in writing to requests for additional information within 45 calendar  
125 days after receipt of the request. If the applicant fails to comply with this requirement, the application will

**Commented [ERL2]:** Variance Member Maurice Barker  
Commented: Suggest 45 or even 90 days for applicant  
to respond. 30 days seems a little short.

**Commented [ERL3R2]:** Ok, changed to 45 calendar  
days.

124 be deemed complete and the department will complete processing of the application based on the  
125 information it has received.

126 (b) Modifications to the innovative system application after testing has begun will require an applicant  
127 to provide a new application, along with necessary exhibits and fees.

128 (c) An ISP issued by the OSP on or after the effective date of this rule is valid for five years from the  
129 date of issue.

130 (d) ISPs issued more than five years prior to the effective date of this rule expire 180 days after the  
131 effective date of this rule. An applicant having a previously issued ISP that will expire per this paragraph  
132 can apply for a new ISP prior to the expiration of their current permit, and must include a new application,  
133 including all required exhibits and fees.

134 (e) The applicant receiving an ISP per paragraph (c) may request a one-time extension for a second  
135 five-year period, at no cost. The extension request must be received by the OSP at least 90 days prior to  
136 the ISP expiration date and must include a statement from the applicant that the conditions under which  
137 the original ISP was issued have not changed. If conditions have changed, or if the extension request has  
138 not been received per this paragraph, extensions will not be allowed, and a new application and fee will  
139 be required.

140 (4) Innovative System Permitting - Innovative system permit issuance is the responsibility of the OSP.  
141 Where the innovative system applicant requires any form of maintenance on the innovative system, a  
142 template of a maintenance contract to be used with each system tested must be included in the  
143 application. The applicant must provide in the maintenance contract template how and when the  
144 maintenance is to be performed, any determining factors which influence the decision to perform required  
145 maintenance, and must allow any septic tank contractor or state-licensed plumber to provide  
146 maintenance, as long as the ISP applicant has provided training and written authorization to the septic  
147 tank contractor or state-licensed plumber. ISPs that intend to be classified as a performance-based  
148 treatment system require an approved maintenance entity that will perform all required maintenance on  
149 the system.

150 (a) For innovative systems requiring a maintenance contract, the applicant must train and certify in  
151 writing a maintenance entity. During ISP testing, the maintenance entity is not considered a maintenance  
152 entity as used in s. 381.0065(3)(n) F.S. The applicant may have more than one certified maintenance  
153 entity. Any change in certification status must be reported by the applicant to the OSP.

154 (b) An innovative system cannot be used as a component to any performance-based treatment  
155 system where any benefit is to be received per rule 64E-6.028, F.A.C. However, where an innovative  
156 treatment component is used to enhance what would otherwise be a permissible PBTS, the treatment  
157 component may be used to further treat the sewage, but no additional treatment level will be recognized.  
158 The component being tested does not receive benefits per 64E-6.028, F.A.C.

159 (5) ISP incorporation into construction permits issued by county health departments - After the OSP  
160 has approved the ISP, DOH county health departments are authorized to issue system construction  
161 permits for individual onsite sewage treatment and disposal systems that include the innovative systems.  
162 The ISP applicant must comply with the training requirement in rule 64E-6.009(8)(f). The county health  
163 department must receive a complete application in accordance with Parts I or IV, of Chapter 64E-6, F.A.C  
164 and review the application in accordance with all appropriate requirements. All innovative system permit  
165 requirements must be incorporated into the construction permit. The innovative system applicant must  
166 concurrently notify the OSP when an application is submitted to the county health department.

167 (a) The design and installation must comply with the conditions of the ISP and the following additional  
168 criteria:

169 1. Innovative systems are allowed in repair, existing-modification and new construction permits,  
170 however all application and construction standards for new systems must be met. All flow must be  
171 directed into the innovative system and split flow systems are not allowed.

172 2. Construction permit applications which include innovative systems or components, require a  
173 separate plan for a system that does not include the innovative system being used, which can include  
174 removal of the innovative system and installation of the non-innovative system. This will include a site  
175 plan that shows both systems and how they will be installed in relationship to each other, and how the



176 other system will replace the innovative system should it not perform in compliance with the design. This  
177 can be done using the same application, but as a different proposal, which is required to be used if, or  
178 when, the innovative system does not perform in compliance with the design. Where the innovative  
179 system will be replaced by the non-innovative system, it will be permitted and inspected as a new system.

180 (b) As part of the construction permit application, the system owner must complete form DH 3144,  
181 10/19, herein incorporated by reference, and provide it to the CHD.

182 (6) Innovative System Testing-

183 After ISP issuance, the applicant must provide quarterly reports to the OSP which includes a tabular  
184 summary of installations and testing, and information on the progress of the innovative system evaluation.  
185 Reports are due by the 21st day of the month following the completion of a standard calendar quarter. A  
186 standard calendar quarter includes the months January through March; April through June; July through  
187 September; and October through December. If the 21st day of the month falls on a weekend or holiday,  
188 the deadline will be the close of the following business day. Failure to submit quarterly reports within 31  
189 days of the end of the quarter will be considered in violation and subject to fines per s.381.0061, FS.  
190 Where any failure or malfunction of the innovative system itself, or the septic tank system to which it is  
191 attached is found, the applicant is required to report the incident to the OSP within five working days.

192 (7) Following the installation and testing of the number of systems required by the innovative system  
193 permit, and the submission of all required information or results, the applicant may request classification  
194 of their innovative system by the OSP. Only systems that received final approval from the county health  
195 department and were occupied during the entire testing can be used in the department's evaluation for  
196 classification. The department will approve the classification request only if the department is satisfied  
197 that the system will reliably perform to the standards for which it is being approved. Evaluation criteria will  
198 be per the department's Protocol. Requests for classification must include the following:

199 (a) Specification of the proposed classification (treatment, disposal, both):

200 (b) Complete results and analysis of testing of all systems installed. Results must be in a spreadsheet  
201 compatible with department software:

202 (c) Complete observations of system performance;

203 (d) Complete records regarding maintenance, repairs or modifications performed on any systems;

204 (e) All comments from the maintenance entities, system users, and design engineers (if applicable).

205 The innovative system applicant must contact these parties and all users by email and specifically

206 request their comments regarding their experience in the use and operation of the system, to include any

207 issues or problems that were noted;

208 (f) Comments from the county health departments in the counties where the systems were installed.

209 CHDs will provide comments to the OSP using the criteria in paragraph (e), above;

210 (g) Monitoring procedures; and

211 (h) An owner's manual, an installation manual, operation and maintenance manual, and inspection

212 procedures updated based on testing experience and level applied for classification and that comply with

213 requirements of 3.D. of the department's Protocol.

214 Rulemaking Authority 381.0011(13), 381.006, 381.0065(3)(a) FS. Law Implemented 381.0065, 381.0067,

215 386.041 FS. History—New XX-XX-XX.

216 **64E-6.025 Definitions.**

217 (1) through (8) No change.

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

219 ~~(9) Performance-based treatment system — a specialized onsite sewage treatment and disposal~~

220 ~~system designed by a professional engineer with a background in wastewater engineering, licensed in the~~

221 ~~state of Florida, using appropriate application of sound engineering principles to achieve specified levels~~

222 ~~of CBOD<sub>5</sub> (carbonaceous biochemical oxygen demand), TSS (total suspended solids), TN (total nitrogen),~~

223 ~~TP (total phosphorus), and fecal coliform found in domestic sewage waste, to a specific and measurable~~

224 ~~established performance standard. This term also includes innovative systems.~~

225 (11) through (15) change to (10) through (14).

226 **64E-6.026 Applications for Performance-Based Treatment Innovative System Permits and**

227 **System Construction Permits.**

228 ~~(1) Applications for innovative system permits—Applications for innovative system permits shall be~~  
229 ~~made using form DH 3143. The application and all supporting information shall be signed, dated and~~  
230 ~~sealed by an engineer, licensed in the State of Florida. Except as provided for in subsection 64E-~~  
231 ~~6.028(3), F.A.C., alternative drainfield materials and designs shall not be approved which would result in~~  
232 ~~a reduction in drainfield size using the mineral aggregate drainfield system as described in rule 64E-~~  
233 ~~6.014, F.A.C., and the total surface area of soil at the bottom of the drainfield as the criteria for drainfield~~  
234 ~~sizing comparisons. Applications shall include:~~

235 ~~(a) A monitoring protocol designed to validate that the system will perform to the engineer's design~~  
236 ~~specifications.~~

237 ~~(b) Compelling evidence that the system will function properly and reliably to meet the requirements~~  
238 ~~of this chapter and section 381.0065, F.S. Such compelling evidence shall include one or more of the~~  
239 ~~following from a third-party testing organization approved through the NSF Environmental Technology~~  
240 ~~Verification Program:~~

241 ~~1. Side stream testing, where effluent is discharged into a system regulated pursuant to chapter 403,~~  
242 ~~F.S.~~

243 ~~2. Testing of systems in other states with similar soils and climates.~~

244 ~~3. Laboratory testing.~~

245 ~~(2) and (3) renumbered to (1) and (2) No change.~~

246 *Rulemaking Authority 381.0011(4), (13), 381.0065(3)(a) FS. Law Implemented 381.0065, 381.0067, Part*  
247 *I 386 FS. History—New 2-3-98, Amended 6-18-03, 11-26-06, 4-28-10, XX-XX-XX.*

248 **64E-6.027 Permits.**

249 ~~(1) Innovative System Permit — An application for system construction permit for an innovative system~~  
250 ~~cannot be reviewed until the innovative system permit has been approved specifying the number of~~  
251 ~~systems and time limits. The department's decision to grant or deny the innovative system permit shall be~~

252 based on the presence or absence of compelling evidence that the innovative systems will function  
253 properly and reliably to meet the requirements of this chapter and section 381.0065, F.S.

254 (2) Renumbered to (1) No change.

255 (23) Within 15 working days after the department receives a completed application for a performance-  
256 based treatment system, the county health department must either issue a permit for the system or  
257 ~~must~~shall notify the applicant that the system does not comply with the performance criteria, and refer the  
258 application to the ~~Bureau of Onsite Sewage Programs~~ Office, who ~~must~~shall review the application for a  
259 determination whether the system should be approved, disapproved, or approved with modifications. The  
260 determination of the engineer for the ~~Bureau of Onsite Sewage Programs~~ Office ~~must~~shall prevail over  
261 the action of the local county health department. All applications for a construction permit for an  
262 innovative system shall be reviewed for completeness by the county health department and referred to  
263 the ~~Bureau of Onsite Sewage Programs~~ for review and approval, disapproval or approval with  
264 modifications.

265 (4) through (7) Renumbered to (3) to (6) No change.

266 *Rulemaking Authority 381.0065(3)(a) FS. Law Implemented 381.0065, Part I 386 FS. History--New 2-3-*  
267 *98, Amended 4-21-02, 6-18-03, 6-25-09, 4-28-10, XX-XX-XX.*

268 **64E-6.0295 Innovative System Reclassification.**

269 (1) ~~Following the installation and monitoring of the number of systems allowed by the innovative~~  
270 ~~system permit, the applicant may request reclassification of their innovative system by the Bureau of~~  
271 ~~Onsite Sewage Programs. Requests for reclassification as an alternative system component and design~~  
272 ~~shall be made in accordance with subsection 64E-6.009(7), F.A.C. Requests for reclassification as a~~  
273 ~~performance-based treatment system shall include the following:~~

274 (a) ~~Results and analysis of monitoring of the systems installed.~~

275 (b) ~~Observations of system performance.~~

276 (c) ~~Maintenance, repairs or modifications performed on any systems.~~

277 (d) Comments from the system operators or users.

278 (e) Comments from the design engineers who designed the individual system designs.

279 (f) Comments from the county health departments in the counties where the systems were installed.

280 (g) Specification of the proposed classification as performance-based.

281 (h) Rationale for the proposed type of classification desired.

282 (i) Proposed monitoring protocol.

283 (j) A sample manual addressing the siting, design, installation, inspection, operation, maintenance

284 and abandonment procedures.

285 ~~(2) The Bureau of Onsite Sewage Programs shall process the request in accordance with chapter~~

286 ~~120, F.S. The department shall approve the request only if the department is satisfied that the system will~~

287 ~~reliably perform to the standards desired under normal operating conditions as demonstrated by the~~

288 ~~information provided.~~

289 ~~Rulemaking Authority 381.0011(13), 381.006, 381.0065(3)(a) FS. Law Implemented 381.0065, 381.0067,~~

290 ~~386.041 FS. History New 6-18-03, Renumbered to 64E-6.0152 XX-XX-XX.~~

**Department of Health Protocol on Innovative System Permits  
October 2019**

**1. INTRODUCTION**

This Protocol establishes the requirements for innovative system permits (ISPs) in accordance with Rule 64E-6.0152 Florida Administrative Code (FAC) and DH Form 3143.

**2. DEFINITIONS**

As used in the protocol, the words or terms have the following meanings:

- (1) **Disposal component:** arrangement of equipment and/or materials that distributes effluent within a drainfield.
- (2) **Independent:** no employee/employer or subsidiary relationships or other relationships that represent a conflict of interest between the entity collecting data and the innovative system permit applicant.
- (3) **Proposed performance level:** the specific performance measure identified in the test plan that the applicant claims the proposed technology can meet and that is being evaluated during innovative system testing.
- (4) **Proposed technology:** materials, devices or techniques proposed by the applicant to be installed and tested and that serve as whole or as part of an onsite sewage treatment and disposal system. The technology is characterized as a system treatment component, system disposal component, or both.
- (5) **Proprietary technology:** a proposed technology protected by patent or trademark.
- (6) **Public domain technology:** a proposed technology not protected by patent or trademark.
- (7) **Reliability target:** the frequency of test system observations required to show that the proposed technology meets the proposed performance level reliably as described in Section 5 of this document.
- (8) **Testing organization:** the entity that implements testing of the proposed technology.
- (9) **Test plan:** a written document that describes the procedures for innovative system testing as described in Section 3.G of this document.
- (10) **Test system:** an installation of the proposed technology for the purposes of innovative system testing.
- (11) **Tested parameter:** an observation of interest required to evaluate whether a test system can meet the proposed performance level in accordance with the reliability target, such as effluent concentration, sewage disposal, or other applicable measurable and specific measure of functioning.
- (12) **Treatment component:** any part of an innovative system that is intended by the applicant to provide sewage treatment. A treatment component may coexist within or after a disposal component.

**3. INNOVATIVE SYSTEM APPLICATION REQUIREMENTS**

Application for an ISP must include all items required by rule 64E-6.0152 FAC and Form DH 3143, 08/19. Requirements for items on Form DH 3143 are listed below.

**A. DATA FROM PREVIOUS TESTING**

Data from previous testing must include all known results from testing on performance and reliability of the proposed technology, including observations of failure as defined by Rule 64E-

6.002, FAC. For treatment components, reported results must include all individual sampling data, average, median, concentrations and flows. For disposal components, reported results must include all measurements of water levels within the disposal component, estimated or measured hydraulic and biological loading rates, and surfacing observations. The data must meet minimum requirements in section 4.

B. AN AFFIDAVIT BY THE APPLICANT CERTIFYING THAT THE TECHNOLOGY SUBMITTED FOR APPROVAL IS THE SAME AS THE TECHNOLOGY FOR WHICH TESTING DATA ARE PROVIDED.

If there are differences between the technology as it was tested and the technology as it is submitted for approval, the applicant must identify this to the department.

C. DESIGN CRITERIA

Design criteria must include a description of the proposed technology and its function mechanism, detailed design drawings, structure, material specifications, drawings of the configuration or configurations of the proposed technology to be tested, the design treatment capacity, and the proposed performance level. Configuration describes variations in the geometry, elevation and influent supply, such as installations in subsurface, filled or mound systems, trench or bed geometry, and gravity, lift-dosing or low-pressure dosing influent supply. The design criteria must address sizing the technology to estimated sewage flows ranging from 200 to 5000 gallons per day and to differing domestic and commercial wastewater strengths and characteristics. For disposal components, the design criteria must also include a comparability rating. The comparability rating is the ratio of the design value of an absorption surface of mineral aggregate to the actual absorption surface of the innovative disposal component.

D. PRODUCT LITERATURE

Product literature must include the following:

1. An owner's manual including the system's model designation; a functional description of system operation; a list of household substances that could adversely affect the system or the environment; operating instructions, methods to be used to identify system malfunction; electrical schematics (if applicable); instructions for extended periods of non-use; and a description of service policies.
2. An installation manual, including a process overview; a list of components, electrical wiring schematics (if applicable); installation requirements and procedures, repair or replacement instructions; and detailed start-up procedures.
3. An operation and maintenance manual, including a maintenance schedule (if required), detailed procedures for evaluation of system components and system effluent, and methods for collecting effluent samples for treatment components. When maintenance is required by subsection 64E-6.0152(4), F.A.C., the manual must include a trouble shooting guide, a guide for repairing and replacing all system components, and a template of a maintenance contract.
4. Inspection procedures previously used by the applicant to inspect the test system installation to ensure it is properly installed.

The applicant must provide product literature that complies with departmental regulations.

86 E. WARRANTY.

87 A warranty by the applicant to the owner of an installed test system must provide and pay all  
88 costs for system permitting, engineering services, contractor equipment, and material and labor  
89 necessary to secure permits and install a department-approved non-innovative system meeting  
90 new system requirements in Chapter 64E-6, FAC. The duration of the warranty must be for five  
91 years from the date of final approval of the installed test system or for the duration of testing,  
92 whichever happens first.

93 F. CONSUMABLES MEETING REQUIREMENTS OF 64E-6.0151, AND ESTIMATED  
94 REPLACEMENT INTERVALS AND METHODS, IF APPLICABLE

95 G. TEST PLAN

96 All test plans must identify the testing organization and provide testing protocols. The testing  
97 organization must be independent and have knowledge and experience in conducting such  
98 testing.

99 Test plans must include the proposed performance level and tested parameter(s) of the  
100 technology to be tested. The proposed performance level for treatment components must  
101 include at least one annual average/individual sample level for at least one of the parameters  
102 specified in Rule 64E-6.025(10), FAC, and no failure of the system as defined in section 64E-  
103 6.002, FAC. The proposed performance level for disposal components, at a minimum, will be  
104 that water levels measured within the disposal component will not exceed 6" above the  
105 absorption surface and no failure of the system as defined in section 64E-6.002, FAC. Some  
106 technologies may require additional other test parameters and performance levels depending on  
107 their design and treatment levels.

108 Procedures to address system malfunction and replacement, premature termination of the  
109 testing protocol and innovative system evaluation, and criteria for removal of the system at the  
110 end of the evaluation or warranty period must also be provided.

111 Test plans must address the following: method of water use monitoring, sampling/monitoring  
112 points for all measurements to obtain complete and representative observations,  
113 sampling/monitoring procedures, testing schedule and duration, and field observations including  
114 indicators of failure. Where a single component is intended to provide both treatment and  
115 disposal functions, the applicant must adhere to the disposal component criterion for the  
116 number of tested systems.

117 Test plans will vary depending on data from previous testing provided under 3.A of this  
118 document. Where data from previous testing meet requirements of 4.A of this document, the  
119 following sections 3.G.I and 3.G.II apply to the test plan. Where data from previous testing only  
120 meet requirements of 4.B. of this document, one system must be tested in Florida first to  
121 generate data meeting the requirements of 4.A. In this situation, the test plan must include  
122 testing procedures to collect the data meeting requirements of 4.A. The one system tested in  
123 Florida must achieve the proposed performance level before testing can continued as required  
124 by Rule 64E.0152 (2), F.A.C. The one system tested must be included as one of the required  
125 number of systems to be subsequently innovatively tested and sampled.

126 I. TESTING FOR TREATMENT COMPONENT EFFECTIVENESS

127 Testing for treatment component performance effectiveness must provide valid influent and  
128 effluent sampling data from a minimum of four quarterly testing events gathered from each of at  
129 least three test systems. If influent sampling is demonstrated by the applicant not to be feasible,  
130 nutrient removal effectiveness may be assessed assuming average total nitrogen



concentrations and total phosphorus concentrations of 55 and 10 mg/L, respectively. Quarterly testing events must occur at least 10 weeks and no more than 16 weeks apart. Test plans must identify the standard methods proposed for the analysis of each test, what parameters will be analyzed in the laboratory, what parameters will be measured in the field, and what laboratory will be used. The laboratory identified for testing must either be accredited by a recognized National Environmental Laboratory Accreditation Program (NELAP) accreditation body or maintain a comprehensive quality assurance program that, at a minimum, complies with the requirements of ISO/IEC Guide 17025 General Requirements for the Competence of Calibration and Testing Laboratories, and demonstrate it is qualified to perform the assigned analyses in accordance with required methods. Test plans for treatment components must include submission of quality assurance procedures. These must include blank and duplicate sample collection in the amount of at least 10% and chain of custody procedures.

## II. TESTING FOR DISPOSAL COMPONENT EFFECTIVENESS

Testing for disposal components must result in valid measurements of water levels within the disposal component from a minimum of four viable quarterly testing events gathered from at least 15 test systems. Quarterly testing events must occur at least 10 weeks and no more than 16 weeks apart.

At least one system must be tested each in a moderately and a slightly limited soil texture. Not all combinations of soil textures and configurations must be tested. If the proposed comparability rating varies by soil texture or configuration, at least 80% of the systems must be tested in the soil texture and configuration combination with the highest comparability rating.

## H. AN EVALUATION REPORT BY AN INDEPENDENT THIRD-PARTY TESTING ORGANIZATION OR A FLORIDA LICENSED ENGINEER

# 4. REQUIREMENTS FOR DATA FROM PREVIOUS TESTING

Data from previous testing must either meet requirements of 4.A. or meet requirements of 4.B. Where only the requirements of 4.B. are met, one system must be tested in Florida meeting requirements of 4.A for data from previous testing in order to evaluate if it will meet the proposed performance level.

## A. REQUIREMENTS FOR DATA FROM PREVIOUS TESTING – LEVEL A

The data must meet all the following conditions:

(a) Full-scale testing with an average measured daily domestic or commercial strength sewage waste flow as defined by Rule 64E-6.003(13) and (15), FAC, of at least 200 gallons per day and not more than 5000 gallons per day.

(b) The results of previous testing include all influent and performance observations conditions for at least one test system. Treatment component testing must include influent and effluent observations within ten or more separate calendar weeks over a duration of at least 168 days. Disposal component testing must include at least monthly observations for at least 12 months.

The results must show that the average of each test system meets the proposed performance level and the minimum number of individual data points meet the designated performance level as required by Section 5.

(c) The testing of the system must meet all of the following criteria:

- 173 i) The testing organization is independent. The testing organization must provide all  
174 data to the Onsite Sewage Program Office.
- 175 ii) The testing organization has knowledge and experience in conducting such testing.  
176 Testing during EPA's national demonstration projects or testing by government  
177 agencies and contractors for government agencies that regulate onsite sewage  
178 components or wastewater treatment will be deemed to comply. Testing by entities  
179 that perform certification testing for organizations accredited to ISO/IEC 17065:2012  
180 (Conformity assessment - Requirements for bodies certifying products, processes  
181 and services) also will be deemed to comply. Other entities, including department-  
182 accredited analytical laboratories, faculty or staff of an accredited college or  
183 university, must provide documentation demonstrating staff competence, knowledge  
184 and experience in environmental testing.
- 185 iii) The testing protocol and its implementation are documented and provide  
186 standardized procedures and standards to show how objectives such as  
187 completeness, accuracy and precision are met. Testing according to ANSI-standards  
188 or certification standards required for approval in other states or countries, or during  
189 EPA's national demonstration projects shall be deemed to comply with this criterion.  
190 Documentation for testing of treatment components must include chain-of-custody  
191 procedures and certification of analytical laboratories providing data as described in  
192 3.G, if applicable.

193

194 B. REQUIREMENTS FOR DATA FROM PREVIOUS TESTING – LEVEL B

195 The results of previous testing include all influent and performance observations for at least one  
196 test system. Treatment component testing must include influent and effluent observations. Test  
197 data meets Level B requirements if the following criteria are met: a) the test system achieves  
198 the proposed performance level as described in section 3.G; b) using the following scoring  
199 criteria, the data set scores at least 10 if it is a treatment component and at least 8 if it is a  
200 disposal component, where sampling and lab criteria do not apply; and c) the data set cannot  
201 score a zero on any attribute. Data must be associated with domestic strength sewage, unless  
202 the component is specifically intended for different strengths.

203 Scoring criteria: In Table 1, for each data set attribute, assign the point rating. Sum up point  
204 ratings for all attributes.

205

**TABLE 1. SCORING CRITERIA FOR LEVEL 4.B. DATA**

Point rating (PR)	Sewage	Tested flows	Amount of data collected on test parameter*	Qualifications and independence of entity collecting data	Sampling documentation and lab documentation (if applicable)
PR = 0	Non-sewage	< 1 gpd	Data collected within less than five separate calendar weeks over a duration of less than 90 days	Unknown or data collected by sampler with no training	Unknown or undocumented sampling and lab procedures
PR = 1	Synthetic sewage	1 up to 20 gpd	Data collected within five to seven separate calendar weeks and over a duration of 91-120 days	Data collected by trained personnel of applicant or other non-independent entity	Sampling and lab procedures are documented, but not consistent with standard methods as published by the American Public Health Association or Environmental Protection Agency
PR = 2	Real sewage off-site	20 to <200 gpd, or > 5,000 to 50,000 gpd)	Data collected within eight to ten separate calendar weeks and over a duration of 121-167 days	Data collected by independent entity with training.	Sampling and lab procedures are documented, and consistent with standard methods as published by the American Public Health Association or Environmental Protection Agency
PR = 3	Real sewage on-site	≥200 to 5,000 gpd	Data collected within ten or more separate calendar weeks over a duration of 168 or more days	Data collected by independent entity with experience complying with requirements of 4.A.(c) ii	Sampling procedures are documented and consistent with 4.A.(c).iii. Lab is certified to NELAP or ISO.

\*A calendar week is a block of seven days beginning with Sunday and ending with Saturday. If only one condition is met, the lower point rating will apply.

## 5. DATA REQUIREMENTS FOR CLASSIFICATION

Data collected on test systems during innovative testing must meet **reliability targets** for the proposed performance level specified in the test plan to pass innovative system testing.

212 1. TREATMENT COMPONENT RELIABILITY TARGETS

213 For treatment components to pass innovative system testing, they must a) achieve the  
214 annual average reliability target and b) achieve the individual sample reliability target  
215 specified in the test plan.

216  
217 I. ANNUAL PERFORMANCE STANDARD RELIABILITY TARGETS

218 For each test system, the median of each tested parameter must be compared to the annual  
219 average proposed performance level to determine if the level is achieved or not. The  
220 minimum number of test system medians must meet the annual average proposed  
221 performance level according to Table 2.

222  
223 II. INDIVIDUAL SAMPLE RELIABILITY TARGETS

224 Each individual test parameter result must be compared to the individual sample proposed  
225 performance level to determine if the level is met for each individual sample. The minimum  
226 number of individual samples must meet the individual proposed performance level  
227 according to Table 3.

228  
229 2. DISPOSAL COMPONENTS TARGET

230 The results of each test system will be compared to the proposed performance level. The  
231 minimum number of individual samples must meet the proposed performance level  
232 according to Table 4.

**TABLE 2. MINIMUM NUMBER OF TEST SYSTEM MEDIANS REQUIRED TO MEET THE ANNUAL PROPOSED PERFORMANCE LEVEL \*(TREATMENT COMPONENTS)**

Total Number of Test Systems	Number of Test System Medians Required to Meet the Proposed Performance Level (Annual)		Total Number of Test System	Number of Test System Medians Required to Meet the Proposed Performance Level (Annual) **
3	3		31	20
4	4		32	20
5	4		33	21
6	5		34	21
7	6		35	22
8	6		36	22
9	7		37	23
10	8		38	23
11	8		39	24
12	9		40	25
13	9		41	25
14	10		42	26
15	10		43	26
16	11		44	27
17	12		45	27
18	12		46	28
19	13		47	28
20	13		48	29
21	14		49	29
22	15		50	30
23	15		51	31
24	16		52	31
25	16		53	32
26	17		54	32
27	17		55	33
28	18		56	33
29	18		57	34
30	19		58	34

\*The target is to be 90% confident that more than 50% of data points meet the proposed performance level. Median system treatment performance compared to average treatment standard in 64E-6.025.

\*\* Based on normal approximation to the binomial distribution. For larger number of system tested use (minimum meeting=round (number systems \*(0.5+1.28\* $\sqrt{0.5*(1-0.5)/\text{number systems}}$ ))+0.5).

**TABLE 3. MINIMUM NUMBER OF DATA POINTS REQUIRED TO MEET THE INDIVIDUAL PROPOSED PERFORMANCE LEVEL \*(TREATMENT COMPONENTS)**

Total Number of Individual Data Points	Number of Data Points Required to Meet the Proposed Performance Level (Individual)		Total Number of Individual Data Points	Number of Data Points Required to Meet the Proposed Performance Level (Individual)**
10	10		40	34
11	11		41	35
12	11		42	36
13	12		43	36
14	13		44	37
15	14		45	38
16	15		46	39
17	16		47	40
18	16		48	40
19	17		49	41
20	18		50	42
21	19		51	43
22	20		52	43
23	20		53	44
24	21		54	45
25	22		55	46
26	23		56	47
27	24		57	47
28	24		58	48
29	25		59	49
30	26		60	50
31	27		61	51
32	28		62	51
33	28		63	52
34	29		64	53
35	30		65	54
36	31		66	55
37	32		67	55
38	32		68	56
39	33		69	57

\*The target is to be 90% confident that more than 75% of the data points meet the proposed performance level. Grab sample treatment performance compared to grab sample standard in 64E-6.025.

\*\* Based on normal approximation to the binomial distribution. For larger number of data points use (minimum meeting=round (number systems \*(0.75+1.28\* $\sqrt{0.75*(1-0.75)/\text{number systems}}$ ))+0.5).

**TABLE 4. MINIMUM NUMBER OF SYSTEMS REQUIRED TO MEET THE PROPOSED PERFORMANCE LEVEL (DISPOSAL COMPONENTS)**

Total Number of Test Systems	Number of Systems Required to Meet the Proposed Performance Level		Total Number of Test Systems	Number of Systems Required to Meet the Performance Level**
15	15		42	41
16	16		43	42
17	17		44	43
18	18		45	44
19	19		46	45
20	20		47	45
21	21		48	46
22	22		49	47
23	23		50	48
24	24		51	49
25	25		52	50
26	26		53	51
27	27		54	52
28	28		55	53
29	29		56	54
30	30		57	55
31	31		58	56
32	31		59	57
33	32		60	57
34	33		61	58
35	34		62	59
36	35		63	60
37	36		64	61
38	37		65	62
39	38		66	63
40	39		67	64
41	40		68	65

*\*The target is to be 90% confident that more than 90% of the data points meet the proposed performance level. System hydraulic functioning without excessive ponding.*

*\*\* Based on normal approximation to the binomial distribution. For larger number of data points use (minimum meeting=round (number systems \*(0.9+1.28\* $\sqrt{0.9*(1-0.9)}$ /number systems))+0.5).*

# 19-09      ISSUE FOR TECHNICAL REVIEW AND ADVISORY PANEL CONSIDERATION

Printed 12/5/2019 9:18:20 AM

Next Trap Meeting: 12/10/2019

**Subject: Form Updates**

**Rule Sections: 64E.0152 Innovative Systems (new)**

Issue: Forms need to be updated and included in the new rule section for innovative systems: DH 3143 94' and DH 3144 94".

Issue Originated By: Ed Barranco

Purpose and Effect The proposed changes to update the forms to reflect the new rule standards. The new form numbers will be DH 3143 08/19 and DH 3144 08/19.

Proposed Rule Change: (See Attached)

Summary: Updating form numbers DH 3143 and DH 3144 to reflect revised rule standards.

Possible Financial Impacts: none

Date New: 10/1/2019

Initially Reviewed by Trap: 10/23/2019

Tabled by Trap:

Trap Review Finished: 10/23/2019

Variance Committee Reviewed: 11/7/2019

Trap Review Variance Comments: 12/10/2019

Trap Final Decision:

Final Outcome:

Comments: 10/23/19 accepted by TRAP with Edits. Send to Variance committee. RE 11/7/19 Reviewed by Variance Board. No comments. RE 12/2/19

Ready for Rule ☐

In Rule ☐

Rule Date:





**STATE OF FLORIDA**  
**DEPARTMENT OF HEALTH**  
**INNOVATIVE SYSTEM PERMIT** ~~ONSITE SEWAGE TREATMENT AND DISPOSAL~~  
**SYSTEM TEMPORARY PERMIT APPLICATION**

8

Business Name

Applicant Contact Name \_\_\_\_\_ Phone # \_\_\_\_\_

(Last, First, M.I. or Business Name)

Email Address \_\_\_\_\_ Fax # \_\_\_\_\_

Applicant Mailing Address: \_\_\_\_\_

(Street Address or P.O. Box) (Business name)

(Street Address or P.O. Box)

(City)

(State)

(Zip)

Authorized Agent Business Name (if applicable)

Authorized Agent Contact Name

(Last, First, M.I.)

Email Address \_\_\_\_\_ Phone # \_\_\_\_\_

Mailing Address:

(Street Address or P.O. Box)

(City)

(State)

(Zip)

1. Identify the proposed technology for innovative testing, and if it is a sewage treatment component, disposal component, both, or other. List name, type and model number of innovative system or product (may Attach by addendum). Only one proposed technology per application. Applications are not transferrable.

2. Supply the following minimum information as described in Section 3 of the department's Protocol on Innovative Systems, October 2019:

- A) Data from previous testing ~~Research and development studies;~~
- B) An affidavit by the applicant certifying that the technology submitted for approval is the same as the technology for which testing data are provided ~~Results of previous testing;~~
- C) Design criteria and installation criteria;
- D) Product literature ~~Performance and reliability data;~~
- E) Warranty ~~A disinterested third party certifier report, or a Florida Registered Engineer report;~~
- F) Consumables meeting requirements of Rule 64E-6.0151, FAC and estimated replacement intervals and methods, if applicable ~~Copy of system or product warranty;~~
- G) Test plan;
- H) An evaluation report by an independent third-party testing organization or a Florida-licensed engineer.

3. A fee in accordance with the current fee schedule ~~will be charged upon application~~ for an innovative system permit application. See rule 64E-6.030, Florida Administrative Code for fees.

If the above information is not available or determined to be insufficient by the department and a temporary permit is issued for further testing and monitoring then a fee in an amount not to exceed \$25,000.00 as authorized under

section 381.0066, Florida Statutes, will be agreed upon prior to application approval. This fee covers the department's cost associated with the performance evaluation of the innovative system or product.

**I affirm the information contained in this application is true, to the best of my knowledge.**

**Signature of a**Applicant signature or authorized agent representative of applicant; if applicant is other than an individual: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Page 1 of 2

<b>FOR OSP</b>  <b>OFFICE USE ONLY</b>	Notes: _____	Application Check No. _____
	_____	Date of Application Check: _____
	_____	Check Amount: \$ _____
	_____	

Instructions for Form DH 3143

All information must be legible.

**Applicant contact name is the person serving as a contact to the business.**

If the applicant authorizes an agent, they must do so in writing. Should the authorized agent who signed the application cease their association with the applicant or business, the applicant must immediately notify the Onsite Sewage Program Office of the change and supply the name(s) of any other person they intend to act as an authorized agent, if any.

**DEPARTMENTAL USE ONLY**

1)	Application Number: _____	
2)	Application Received By: _____	Date: _____
3)	Reviewed By: _____	Date: _____
4)	Additional Information Requested..... Y/N	Date: _____
	Information Needed: _____	
5)	Application Complete ..... Y/N	Date: _____
	Application Approved..... <input type="checkbox"/>	Date: _____
7)	Temporary Permit Issued..... Y/N	Date: _____
8)	Application Denied..... <input type="checkbox"/>	Date: _____
	Reason for Denial: _____	
Reviewed By: _____		Date: _____
Title: _____		



1 **STATE OF FLORIDA**  
2 **DEPARTMENT OF HEALTH**  
3 **PROPERTY OWNER ACKNOWLEDGEMENT OF INNOVATIVE**  
4 **SYSTEM INSTALLATION FORM**

8

9  
10 \_\_\_\_\_ (date)  
11  
12

13 \_\_\_\_\_ County Health Department  
14

15 \_\_\_\_\_  
16 (Street Address or P.O. Box)  
17

18 \_\_\_\_\_  
19 (City) (State) (Zip)  
20

21 **Attention: Environmental Health Director or**  
22 **OSTDS Program Coordinator**  
23

24  
25 I (print name(s)) \_\_\_\_\_, property owner(s) of the residence or  
26 business property located at (give physical location or street address or legal description if  
27 street address is not available):  
28  
29 \_\_\_\_\_  
30 \_\_\_\_\_  
31 \_\_\_\_\_  
32 \_\_\_\_\_  
33 \_\_\_\_\_

34  
35 understand that the proposed Onsite Sewage Treatment and Disposal System to serve my  
36 property is permitted as an innovative system by the Department of Health (DOH).  
37

38 I agree to allow staff agents of the DOH Florida Department of Health, its the local County  
39 Health Department (CHD) and the manufacturer to enter my property during normal working  
40 hours or any other agreed upon time at reasonable hours for the purpose of monitoring this  
41 system.  
42

43 I agree that I will not hold DOH or its local or the \_\_\_\_\_ CHD  
44 responsible if this innovative system malfunctions.  
45

46 I agree that I will notify the local \_\_\_\_\_ CHD of any  
47 problems, or malfunctions or failure I observe or am made aware of with this innovative system.  
48

49 I agree that I will notify DOH, its local CHD, and the manufacturer if there is a change of  
50 property ownership.  
51

52 I also understand that if the innovative system fails within the warranty five year testing  
53 period, as required in the department's Protocol on Innovative Systems, October 2019, the  
54 manufacturer of the test system will be responsible for all costs necessary to remove the failed  
55 system (if needed) and install a providing a certified installer who will provide contractor  
56 equipment, material and labor necessary to modify the system or repair the system with an

57 DOH-approved system complying with all new construction standards ~~at no additional cost to~~  
58 ~~me. It is also my understanding that I will be responsible for landscape restoration if a new~~  
59 ~~DOH-approved system is to be installed. For the purposes of this evaluation, failure of a system~~  
60 ~~is shall be defined as:~~ a) by section 64E-6.002, F.A.C.; b) creating a sanitary nuisance as  
61 defined by chapter 386, Florida Statutes; or c) the test system fails to function to the  
62 manufacturer's specifications as approved in the innovative system permit; ~~as any system that~~  
63 ~~meets one or more of the following criteria: 1) systems that have been increased in size after~~  
64 ~~installation for reasons other than erroneous application information; 2) systems that experience~~  
65 ~~effluent surfacing and sewage backing up into the house plumbing; and 3) systems described~~  
66 ~~by homeowner as having a sluggish performance during wet weather or observed to have~~  
67 ~~soggy, waterlogged soils above the drainfield attributed to sewage effluent. The failure~~  
68 ~~definition shall include persistent electrical or mechanical device malfunctions. It is also my~~  
69 ~~understanding that I will be responsible for landscape restoration.~~

70  
71 Acknowledged Sincerely,  
72  
73  
74

75  
76 Property Owner Name(s) (printed)  
77  
78

79  
80 Contact Name and title, if applicable (printed)  
81  
82  
83  
84

85  
86 Property Owner Signature(s)  
87  
88  
89

90  
91 Date  
92  
93

94 Instructions for completing Form DH 3144.

95

96 All information must be legible.

97

98 This form must be completed by the owner of the property where the innovative system will be  
99 installed for testing. If the property owner is a business, the contact name and title of the person  
100 filling out the form on behalf of the business must be provided.

## # 19-10      ISSUE FOR TECHNICAL REVIEW AND ADVISORY PANEL CONSIDERATION

Printed 12/5/2019 2:21:19 PM

Next Trap Meeting: 12/10/2019

### **Subject: Aerobic Treatment Unit Updates**

#### **Rule Sections: 64E-6.012 Standards for the Construction, Operation, and Maintenance of Aerobic Treatment Units.**

Issue: Several issues are addressed: referenced standards are out of date; approval process for aerobic treatment units can be lengthy, in part due to slow response times by applicants, in part due to slight differences in requirements between 64E-6 and referenced standards; Table IV is unclear about how to size multiple residential dwelling units served by one ATU, drainfield size reduction for large ATUs is not addressed

Issue Originated By: Eb Roeder

Purpose and Effect The proposed changes update referenced standards, clarify and set timelines for approval requests as aerobic treatment units, clarify Table IV, make code language on access and alarms consistent with referenced standards, allows 25% drainfield size reduction in slightly limited soils for all ATUs, (require property record notice, this aspect was moved out of this issue)

Proposed Rule Change: 19-10--64E-6.012 ATU rule 20191017.docx (See Attached)

Summary: The proposed changes update referenced standards, clarify and set timelines for approval requests as aerobic treatment units, clarify Table IV, make code language on access and alarms consistent with referenced standards

Possible Financial Impacts: none

Date New: 7/23/2019

Initially Reviewed by Trap: 9/30/2019

Tabled by Trap:

Trap Review Finished: 9/30/2019

Variance Committee Reviewed: 11/7/2019

Trap Review Variance Comments: 12/10/2019

Trap Final Decision:

Final Outcome:

Comments: 9/30/19 TRAP approved with proviso to work out property record notices and alarms with Roxanne. 10/16 DT discusses with Roxanne, concerns about property record notice. 10/17/19 split out property record notice as separate issue (ER)  
11/7/19 Variance Review Board reviewed. Approved by Board with a

comment concerning 45 day response time may be too short. RE 12/2/19

Ready for Rule

☐

In Rule

☐

Rule Date:

#### Issue 19-10 Aerobic treatment unit updates

- 64E-6.012(1) update edition of referenced standards; **specify reporting timelines by certification agencies**
- 64E-6.012(2)(a)2 protection of access openings with screws that have special heads (NSF40 language)
- 64E-6.012(2)(c) Making wiring language consistent with NSF40 requirements
- 64E-6.012(2)(e)/Table IV clarify how multiple residences served by one ATU will be sized; add "non-residential" to clarify use of the table for all establishments
- 64E-6.012(2)(h) allow 25% drainfield size reduction for all ATUs
- 64E-6.012(2)(i) clarify approval process for ATUs: ATU installations have to be to code, manufacturer's documents have to show compliance
- 64E-6.012(2)(i) require applicant to respond within certain time frames
- 64E-6.012(2)(j)/(k) clarify interactions between Onsite Sewage Program-Office and Manufacturer, no distributor
- 64E-6.012(2)(l) delete old language referring to building occupancy
- 64E-6.012(2)(n) move reporting requirements for maintenance entities from subparagraph on maintenance contract into their own paragraph; requires operating permit as part of the report, requires electronic reporting.
- 64E-6.012(2)(o) renumbering from (n)
- 64E-6.012(3)(d) technical change to update reference

#### Proposed Rule:

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

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

(1) Aerobic treatment units designed to treat up to 1500 gallons of sewage waste per day ~~must~~shall be listed by a third party certifying program approved by the State Health Office. Aerobic treatment units ~~must~~shall be in compliance with at least one of the following standards: Class I systems as defined by NSF International Standard/American National Standard (NSF/ANSI) 40-~~2018~~2013, "Residential Wastewater Treatment Systems", ~~revised April 2013~~; nitrogen reduction as defined by NSF/ANSI 245-~~2018~~2013, "Wastewater Treatment Systems – Nitrogen Reduction," ~~revised April 2013~~; onsite residential and commercial graywater treatment systems as defined by NSF/ANSI 350-~~2017~~2013, "Onsite Residential and Commercial Water Reuse Treatment Systems," ~~revised December 2012~~. These NSF/ANSI standards are hereby incorporated by reference, have been deemed copyright protected, and are available for inspection at the Department of Health, Bureau of Environmental Health, 4025 Esplanade Way, Tallahassee, Florida 32399-1710 or at the Department of State, R.A. Gray Building, 500 South Bronough Street, Tallahassee, Florida 32399-0250. An approved third party certifying program ~~must~~shall comply with the following provisions in order for units which it has certified to be approved for use in Florida:

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

(c) Notify the department State Health Office of the results of monitoring visits to



manufacturers and distributors annually, within 60 days of the conclusion of the calendar year ~~monitoring~~. Approved distributors must be reported by the manufacturer to the certifying agency.

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

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

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

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

1. A padlock.

~~2. A cover that can be removed only with specialized tools. This shall include covers fastened using special screws. An "O" ring with twist lock cover requiring special tools for removal.~~

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

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

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

(c) A visual and audio warning device must~~shall~~ be installed in a conspicuous location so that activation of such warning device will alert property occupants of aerobic unit malfunction or failure. The visual and auditory signals must continue to be functional in the event of an electrical, mechanical, or hydraulic malfunction of the system provided power is available to the system and must resume once power is restarted following the power outage. This does not mandate a battery back-up for the alarm system. ~~All warning devices shall be wired separately from the aerobic unit so that disconnecting the aerobic unit from electricity will activate the warning device.~~ If installed outside, the alarm must~~shall~~ be waterproof.

(d) Each unit must~~shall~~ be designed or equipped so that regardless of unusual patterns or frequencies of sewage flow into the system effluent discharged to the drainfield will be in compliance with the applicable standards of subsection (1) above.

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

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	400
4	2251-3300	500

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

COMMERCIAL NON-RESIDENTIAL:

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

66  
67 Footnotes to Table IV

68 1. Where the number of bedrooms and the corresponding building area in Table IV do not  
69 coincide, the criteria which results in the greatest required treatment capacity ~~will~~ apply. For  
70 each additional bedroom or each additional 750 square feet of building area, or fraction thereof  
71 in a dwelling unit, treatment capacity must be increased by 60 gallons. For aerobic treatment  
72 units treating sewage from more than one dwelling unit or from residential establishments sized  
73 as other per occupant, the minimum required treatment capacity must be 100 gallons greater  
74 than the combined estimated sewage flow calculated by adding up the estimated sewage flows  
75 from each dwelling unit from Table I.

76 2. These figures assume that the aerobic system will be treating domestic strength sewage  
77 with CBOD<sub>5</sub> and suspended solids values typically not exceeding 300 and 200 milligrams per  
78 liter, respectively. For wastewaters with higher CBOD<sub>5</sub>, higher suspended solids values, or for  
79 facilities that exhibit short-term hydraulic surge conditions, additional treatment or pre-treatment  
80 facilities ~~will~~ be required when specified by design engineers, plant manufacturers, or by  
81 the DOH county health department.

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

86 (g) Effluent from an aerobic treatment unit ~~must~~ be disposed of on the owner's property  
87 in conformance with other requirements of this chapter ~~except as provided for in paragraph (f)~~  
88 above. Effluent quality which is found to not meet appropriate average treatment standards as  
89 provided by their certification must be reported to the maintenance entity for correction  
90 within 10 working days.

91 (h) Where slightly limited soil textures exist on a site, the required drainfield size may be

reduced by 25 percent from the requirements in Rule 64E-6.008(5) or Rule 64E-6.009(3)(d), F.A.C. This shall apply to all aerobic treatment units permitted under Rule 64E-6.012.

(i) To apply for approval of aerobic treatment unit models, a manufacturer, distributor or seller of aerobic treatment units ~~must~~ shall furnish, to the Onsite Sewage Program State Health Office, in Microsoft Word document format, Portable Document Format (PDF) or other electronic format accepted by the Department, a written request for approval, a copy of the completion reports, owner manual, part list, and engineering drawings showing the design and construction details of all models of approved Class I aerobic treatment units to be constructed or installed under the provisions of this rule in Portable Document Format (PDF) or other electronic format accepted by the Department. The documentation submitted must demonstrate for each unit

model that the installation and operation complies with all provisions of this chapter, and specify the approved treatment receptacle. The applicant must respond to requests for additional information about their application for aerobic treatment unit approval from the Onsite Sewage Program Office within 45 calendar days after receipt of a request for additional information. The Onsite Sewage Program State Health Office will forward these completion reports and drawings to each DOH county health department. No aerobic unit will shall receive final installation approval until the unit is found to be in compliance with all provisions of this rule, including compliance with design and construction details shown on the engineering plans filed with DOH county health departments and the Onsite Sewage Program State Health Office.

(j) Manufacturers ~~must~~ shall provide to the Onsite Sewage Program Office a listing of approved maintenance entities they have authorized to provide service in the state and ~~must~~ shall demonstrate that the entire state is covered by at least one maintenance entity. A system using a manufacturer's unit will shall not be approved in the state if the manufacturer cannot demonstrate that there are maintenance entities to service it.

(k) A manufacturer distributor of a specific manufacturer's brand or model of an approved aerobic treatment unit ~~must~~ shall provide to the DOH county health department and Onsite Sewage Program State Health Office written assurance that spare mechanical and structural parts, as well as the mechanisms used to make the access ports vandal, tamper, and child resistant, are available, upon request, for purchase, to all other approved maintenance entities.

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

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

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

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

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

4. Provide that each aerobic unit is inspected by an approved maintenance entity at least two times each year. Aerobic treatment units serving commercial establishments ~~must~~ shall be inspected four times per year.

(n) The maintenance entity ~~must~~ shall furnish to the DOH county health department a report listing of all aerobic treatment units inspected or serviced during the respective reporting

**Commented [ERL1]:** Variance Member Maurice Barker: Commented the 45 day response time still may be too short but reasonable.

**Commented [ERL2R1]:** Leaving at 45 calendar days to make it consistent with language in Issue 19-08 added calendar.

period. As a minimum, reports ~~must~~ indicate the operating permit, system owner or building lessee, the street address of the system, the date of system inspection or service and a statement as to the maintenance or service performed. The maintenance entity ~~must~~ also include a list of the owners who have refused to renew their maintenance agreement.

(~~no~~) The DOH county health department ~~will~~, at least annually, inspect the maintenance and performance of aerobic treatment units. The DOH county health department ~~will~~ also inspect each authorized maintenance entity, including review of their service records and maintenance agreements.

(3) An aerobic treatment unit used for treating domestic or commercial sewage flows in excess of 1500 gallons per day, or a combination of aerobic treatment units treating flows according to Rule 64E-6.004(4)(a) or (b), F.A.C., ~~must~~ be designed and certified by an engineer licensed in the State of Florida. The design ~~must~~ include an assessment of wastewater strength. The certification ~~must~~ state that the unit is capable of consistently meeting, at minimum, secondary treatment standards for CBOD<sub>5</sub> and TSS established in Rule 64E-6.025(12)(a), F.A.C. In addition, the following requirements ~~must~~ also be met:

(a) The owner or lessee of a system ~~must~~ comply with the applicable safety, maintenance and operational requirements of subsection (2) above. Unless the system owner or lessee is a state licensed wastewater treatment plant operator, the owner or lessee ~~is~~ shall be required to have a system maintenance agreement with a permitted aerobic unit maintenance entity which has at least a Class D state certified operator who has been certified under the provisions of Chapter 62-602, F.A.C.

(b) A permitted aerobic unit maintenance entity ~~must~~ collect effluent quality samples and submit the sample analysis reports to the DOH county health department. Effluent quality samples for CBOD<sub>5</sub> and suspended solids ~~must~~ be collected at least semi-annually and such samples ~~must~~ be analyzed by a department-approved laboratory.

(c) Written sample analysis reports ~~must~~ be submitted to the DOH county health department by no later than the 15th of the next month following the semi-annual sampling period. However, if the sample analysis for CBOD<sub>5</sub> or suspended solids exceeds secondary treatment standards by more than 100 percent, the maintenance entity or certified operator ~~must~~ notify the DOH county health department by telephone or in person within 24 hours after receipt of sample analysis results.

(d) The DOH county health department ~~must~~ monitor the maintenance and performance of aerobic treatment units as required by paragraph (~~om~~) above.

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

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

(b) A signed statement from the applicant attesting that the applicant has adequate staff,

194 possesses proper equipment and has sufficient spare structural and mechanical parts and  
195 components to perform routine system monitoring and servicing and is able to make a service  
196 response within 36 hours after notification of the need for emergency repairs.

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

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

203 (6) All materials incorporated herein may be obtained from the Bureau of Onsite Sewage  
204 Programs at [www.MyFloridaEH.com](http://www.MyFloridaEH.com) or 4052 Bald Cypress Way, Bin A08, Tallahassee, Florida  
205 32399-1713.

206 *Rulemaking Authority 381.0065(3)(a), 489.553(3) FS. Law Implemented 381.0065, Part I 386*  
207 *FS. History—New 3-17-92, Amended 1-3-95, Formerly 10D-6.0541, Amended 11-19-97, 4-21-*  
208 *02, 6-18-03, 5-24-04, 11-26-06, 6-25-09, 4-28-10, 7-31-18.*

## # 19-12      ISSUE FOR TECHNICAL REVIEW AND ADVISORY PANEL CONSIDERATION

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Next Trap Meeting: 12/10/2019

### **Subject: Performance-Based Systems-Standards**

#### **Rule Sections: 64E-6.025**

<u>Issue:</u>	Replaces current 7-day and 30-day average discharge limits with a percent removal.
<u>Issue Originated By:</u>	Eb Roeder
<u>Purpose and Effect</u>	The proposed changes replace current 7-day and 30-day average discharge limits with a percent removal., summarizes the performance requirements into a table format
<u>Proposed Rule Change:</u>	19-12--64E-6.025-PBTS_revised_standards_language only0925.doc (See Attached)
<u>Summary:</u>	<p>Rewrites the definition and standards for Performance Based Treatment Systems</p> <ul style="list-style-type: none"><li>•This proposal resurrects the previously TRAP-approved issue 07-23, which had not been adopted into rule so far. Since then, the 2013 legislature (HB375/7019, CH 2013-79/213) established a Florida Keys nitrogen reduction standard of 70% as alternative to 10 mg/L. This proposal includes that, and reformatted Table IX to fit in portrait orientation.</li><li>•The proposal replaces treatment standards for 7-day and 30-day averages with a percent removal performance standard. 7-day and 30-day averages are not meaningful in current practice. Percent removal allows some consideration of variability in influent concentrations.</li><li>•The standards are reformatted in a table for ease of reading.</li><li>•Baseline standards are provided for all pollutants. Domestic sewage strength and septic tank effluent standards are now consistent with 64E-6.002(15)(c) (domestic sewage strength).</li><li>•ATU standards are defined to clarify PBTS standards in locations where ATUs are required.</li><li>•Florida Keys standards are amended by grab sample and percent removal standards</li><li>•Advanced secondary treatment grab sample standards for nitrogen is loosened to make a distinction from Florida Keys standard.</li><li>•Effluent is defined and treatment standards are adjusted for soil-based treatment.</li><li>•Disposal and treatment component are defined</li></ul>

Possible Financial Impacts: should not be any for systems that meet the existing standards.

Date New: 8/20/2019

Initially Reviewed by Trap: 8/27/2019

Tabled by Trap:

Trap Review Finished: 8/27/2019

Variance Committee Reviewed: 11/7/2019

Trap Review Variance Comments: 12/10/2019

Trap Final Decision:

Final Outcome:

Comments: Formerly 07-23

12/2/2010 TRAP Approved for Rule

5/21/12 Not included in 2012 rule package.

8/20/19 Renumbered 19-12

Heard by TRAP on 8/27/19 and passed with some edits by the panel. Ready for variance committee. Meeting must be ratified at 9/30/19 meeting due to issue with FAR advertisement. RE RE 8/29/19

9/30/19 TRAP meeting ratified the 8/27/19 meeting. RE

11/7/19 Reviewed by Variance Board. Requested adding NSF 245 & INRB to chart. RE 12/2/19

Ready for Rule ☐

In Rule ☐

Rule Date:

1 **64E-6.025 Definitions**

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

3  
4 Definitions in Chapter 64E-6, Parts I and II, are also applicable to Chapter 64E-6, Part IV.

5 (1) Bottom infiltrative surface - the vertical projection of the bottom surface of the drainfield that is no lower in elevation than 30

6 inches below grade.

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

8 minimize the effect of the variability of the individual sample.

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

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

11 proposes to use soil as component of the treatment system, effluent refers to the mixture of soil water, effluent and shallow

12 groundwater recovered from the monitoring points and treatment concentration standards shall be decreased by 50% for CBOD<sub>5</sub>, TSS,

13 TN, and TP, and by 90% for fecal coliform, and percent removal standards of table IX shall be correspondingly adjusted. For systems

14 designed to meet the standards of 64E-6.017(4), effluent refers to the recovered water product from a sampling point following the

15 final design treatment step.

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

17 maintenance entity performs and documents maintenance, and a second individual sample is taken within 30 days of the first

18 individual sample and meets the applicable individual performance standard.

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

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

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

22 (9) Performance-based treatment system - a specialized onsite sewage treatment and disposal system designed by a professional

23 engineer with a background in wastewater engineering, licensed in the state of Florida, using appropriate application of sound

24 engineering principles to achieve specified levels of CBOD<sub>5</sub> (carbonaceous biochemical oxygen demand), TSS (total suspended

25 solids), TN (total nitrogen), TP (total phosphorus), and fecal coliform found in domestic sewage waste, to a specific and measurable

26 established performance standard. This term also includes innovative systems.

27 (10) Performance-based treatment system maintenance entity - any person or business entity which has obtained an annual written

28 permit issued on form DH4013 from the DOH county health department in the county where the maintenance entity is located and has

29 been authorized to perform maintenance by the design engineer or manufacturer of all treatment components used in the performance-

30 based treatment system and provides operation and maintenance services associated with that performance-based treatment system.

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

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

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

34 (13) Treatment component - any arrangement of equipment and/or material that treats sewage in preparation for further treatment

35 and/or disposal. Treatment components may incorporate a disposal component.

36 (14) Treatment performance standards -

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

38 1. Annual average concentration is the arithmetic mean of the results of all effluent samples taken within the previous 365 days,

39 expressed as a concentration.

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

41 concentration.

42 3. Percent removal – annual average removal of a pollutant from the discharge of the treatment system compared to the influent

43 from the establishment. The influent stems from a septic tank or similar treatment compartment; percent removal= (1- effluent

44 concentration/influent concentration)\*100

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

46 1. Carbonaceous biochemical oxygen demand after five days (CBOD<sub>5</sub>), measured in mg oxygen per liter

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

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

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

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

51 (c) Numerical values for several levels of common treatment performance standards for the five pollutants are defined in Table

52 IX. Compliance during monitoring shall consist of meeting at least one of the three criteria. To achieve compliance the values

53 determined from samples of the system shall be equal to or better than the treatment standards listed. For concentrations, better means

54 lower, for percent removal, better means higher.

55 (15) Wastewater strength - the sum of the CBOD<sub>5</sub> and TSS concentrations.

56



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
CBOD <sub>5</sub> (mg/L)								
-annual average	300	150	10	20	20	10	10	5
-individual sample	500	300	20	60	60	30	30	10
-removal	NA*	NA	95%	90%	90%	95%	95%	97%
TSS (mg/L)								
-annual average	200	100	30	20	20	10	10	5
-individual sample	500	200	100	60	60	30	30	10
-removal	NA	NA	85%	90%	90%	95%	95%	97%
TN (mg/L)								
-annual average	100	100	70	NR**	NR**	20	10	3
-individual sample	150	150	100			50	40	6
-removal	NA	NA	30%			50%	70-62%	90%
TP (mg/L)								
-annual average	18	18	12	NR	NR	10	1	1
-individual sample	25	25	18			20	4	2
-removal	NA	NA	30%			25%	50%	90%
Fecal coliform (cfu/100ml)								
-annual average	2.0E+6	2.0E+6	20	NR	200	200	NR	1
-individual sample	2.0E+7	2.0E+7	200		800	800		25
-percent reduction	NA	NA	99.999%		99.99%	99.99%	NR	99.9999%

\* NA = Not applicable

\*\* NR = No requirement

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.

Footnote 3. Performance-based treatment systems (PBTS) may be permitted where Aerobic Treatment Units (ATU) are required, for example by county or city ordinance. When a PBTS is designed where an ATU is required, the following performance standards apply: baseline septic tank effluent standards and secondary treatment effluent standards for CBOD<sub>5</sub> and TSS only (NSF 40); baseline septic tank effluent standards, secondary treatment effluent standards for CBOD<sub>5</sub> and TSS, advanced secondary treatment effluent standards for TN (NSF 245); baseline septic tank effluent standards, advanced secondary treatment effluent standards for CBOD<sub>5</sub> and TSS, advanced wastewater treatment standards for fecal coliform (NSF 350). An ATU not installed as a PBTS must comply with Rule 64E-6.012, F.A.C.

Footnote 4. Where a PBTS is designed to include soil as a treatment component, in lieu of an in-ground nitrogen reducing biofilter as specified in Rule 64E-6.009(7), F.A.C., the following effluent standards apply: baseline treatment standard 24" below bottom infiltrative surface and advanced secondary treatment effluent standards with soil component for TN (10 mg/L average, 25 mg/L grab sample, 75% removal).

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

**Commented [ERL1]:** Variance Member Roxanne Groover:  
Commented, please add NSF 245 & INRB to chart.

OSP response:

Addressed various aerobic treatment unit standards in footnote 3. An engineer specifying 50% nitrogen reduction would specify baseline plus ASTS for total nitrogen

Addressed INRB-likes with footnote 4. Standards are for advanced secondary with soil component treatment.  
The INRB is not permitted as a PBTS, the performance level is specified in edits to 64E-6.009(7) that have recently been approved by TRAP.

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

(a) CBOD<sub>5</sub> and TSS

1. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for the effluent samples collected (whether grab or composite technique is used) during an annual period shall not exceed 10 mg/l.

2. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day during a period of 90 consecutive days (quarterly) shall not exceed 12.5 mg/l.

3. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day of seven consecutive days shall not exceed 15 mg/l.

4. Maximum permissible concentrations of CBOD<sub>5</sub> 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) CBOD<sub>5</sub> and TSS

1. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for the effluent samples collected (whether grab or composite technique is used) during an annual period shall not exceed 5 mg/l.

2. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day during a period of 90 consecutive days (quarterly) shall not exceed 6.25 mg/l.

3. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day of seven consecutive days shall not exceed 7.5 mg/l.

4. Maximum permissible concentrations of CBOD<sub>5</sub> or TSS values in any effluent grab sample at any time shall not exceed 10 mg/l.

(b) TN

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

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

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

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

(c) TP

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

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

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

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

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

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

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

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

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

(a) Effluent concentrations from the treatment tank:

1. CBOD<sub>5</sub> < 240 mg/l

2. TSS < 176 mg/l

3. TN < 45 mg/l

4. TP < 10 mg/l

(b) Percolate concentrations from the baseline system prior to discharge to groundwater:

1. CBOD<sub>5</sub> < 5 mg/l

2. TSS < 5 mg/l

3. TN < 25 mg/l

4. TP < 5 mg/l

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

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

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

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

(8) Florida Keys nutrient reduction treatment—a treatment which will provide a recovered water product that contains not more, on a permitted annual average basis, than the following concentrations from a

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

1. Biochemical Oxygen Demand (CBOD<sub>5</sub>) — 10 mg/l

2. Suspended Solids — 10 mg/l

3. Total Nitrogen, expressed as N — 10 mg/l

4. Total Phosphorus, expressed as P — 1 mg/l

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

(10) Performance-based treatment system — a specialized onsite sewage treatment and disposal system designed by a professional engineer with a background in wastewater engineering, licensed in the state of Florida, using appropriate application of sound engineering principles to achieve specified levels of CBOD<sub>5</sub> (carbonaceous biochemical oxygen demand), TSS (total suspended solids), TN (total nitrogen), TP (total phosphorus), and fecal coliform found in domestic sewage waste, to a specific and measurable established performance standard. This term also includes innovative systems.

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

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

(a) CBOD<sub>5</sub> and TSS

1. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for the effluent samples collected (whether grab or composite technique is used) during an annual period shall not exceed 20 mg/l.

2. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day during a period of 30 consecutive days (monthly) shall not exceed 30 mg/l.

3. The arithmetic mean of the CBOD<sub>5</sub> or TSS values for a minimum of four effluent samples, each collected (whether grab or composite technique is used) on a separate day of seven consecutive days shall not exceed 45 mg/l.

4. Maximum permissible concentrations of CBOD<sub>5</sub> or TSS values in any effluent grab sample at any time shall not exceed 60 mg/l.

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

1. The arithmetic mean of the fecal coliform colonies collected during the annual period shall not exceed 200 per 100 ml of effluent.

2. The geometric mean of the fecal coliform colonies for a minimum of 10 samples of effluent, each collected on a separate day, shall not exceed 200 per 100 ml of sample.

3. No more than 10% of the samples collected during a period of 30 consecutive days shall exceed 400 fecal coliform colonies per 100 ml of sample.

4. Any one sample shall not exceed 800 fecal coliform values per 100 ml of sample.

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

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

(15) Wastewater strength — the sum of the CBOD<sub>5</sub> and TSS concentrations in the effluent.

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**Subject: Net Acreage**

**Rule Sections: 64E-6.002 Define terms Lot Densities and Platted**

Rule Date:

**64E-6.002 Definitions.**

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

(1) through (32), no change.

(33) Lot Densities - as used in s. 381.0065(4)(b), FS, four lots per acre shall be defined as a grouping of any four conterminous lots and summing their cumulative areas. The pro-rata portion of the uncompacted adjacent right-of-way for the lots is added to this calculation. The area of all surface water bodies as well as all paved areas and prepared road beds within public or private rights-of-way or easements must be deducted from the calculations. As used in this definition, a prepared road bed is any area where soil has been compacted, which may or may not be paved, to support vehicle traffic. The four-lot grouping with the smallest cumulative area must be used to determine overall lot density for the entire subdivision. Where this four-lot grouping does not equal at least one acre, the entire subdivision does not meet the four lots per acre requirement.

(33) through (42) renumbered (34) through (43).

(44) Platted – the date a lot is placed into its current configuration and dimensions; including any changes from previous legal descriptions.

(43) through (59) renumbered (45) through (61).

*Rulemaking Authority 381.0065(3)(a) FS. Law Implemented 381.0065 FS. History—New 12-22-82, Amended 2-5-85, Formerly 10D-6.42, Amended 3-17-92, 1-3-95, Formerly 10D-6.042, Amended 11-19-97, 3-22-00, 11-26-06, 7-16-13.*

**# 19-14      ISSUE FOR TECHNICAL REVIEW AND ADVISORY PANEL CONSIDERATION**

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Next Trap Meeting: 10/23/2019

**Subject: property record notice for ATU**

**Rule Sections: 64E-6.012(2)**

Issue: After acquiring a property served by an aerobic treatment unit (ATU), homeowners are sometimes surprised to find that they have an obligation to maintain and operate their systems, including requirements for operating permit and maintenance agreement.

Issue Originated By: Ed Barranco      Ed.Barranco@flhealth.gov

Purpose and Effect The proposed changes

Proposed Rule Change: 19-14 ATU property record notice 2019\_1018.docx      (See Attached)

Summary:

~~Possible Financial Impacts:~~

Date New: 10/11/19

Initially Reviewed by Trap: 10/23/19

Tabled by Trap:

Trap Review Finished:

Variance Committee Reviewed:

Trap Review Variance Comments:

Trap Final Decision:

Final Outcome:

Comments:

Ready for Rule ☐

In Rule ☐

Rule Date:

## TRAP Issue 19-14

### Issue 19-14 Aerobic treatment unit property record notice

This issue splits the property record notice for aerobic treatment units out of the issue 19-10.

- 64E-6.012(2)(p) add requirement of property record notice (similar to PBTS and INRB) to provide notice of perpetual maintenance requirement.

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

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

(1) unchanged

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

(a) –(o) unchanged

(p) Final installation approval must not be granted until the county health department has confirmed the property owner has executed and recorded in the public property records at the county courthouse, a written notice that informs all subsequent property owners of the use of the aerobic treatment unit, and of the requirement for the system to be maintained, in perpetuity, in compliance with all lawful requirements.

(3)-(6) unchanged.

#### Option 1 (new systems)

(p)After this rule becomes effective, final installation approval for systems meeting new system standards must not be granted until the county health department has confirmed the property owner has executed and recorded in the public property records at the county courthouse, a written notice that informs all subsequent property owners of the use of the aerobic treatment unit, and of the requirement for the system to be maintained, in perpetuity, in compliance with all lawful requirements.

#### Option 2 (no prior permitted OSTDS)

(p)After this rule becomes effective, final installation approval for systems on parcels where there had been no onsite sewage treatment and disposal system permitted previously must not be granted until the county health department has confirmed the property owner has executed and recorded in the public property records at the county courthouse, a written notice that informs all subsequent property owners of the use of the aerobic treatment unit, and of the requirement for the system to be maintained, in perpetuity, in compliance with all lawful requirements.

*Rulemaking Authority 381.0065(3)(a), 489.553(3) FS. Law Implemented 381.0065, Part I 386 FS. History—New 3-17-92, Amended 1-3-95, Formerly 10D-6.0541, Amended 11-19-97, 4-21-02, 6-18-03, 5-24-04, 11-26-06, 6-25-09, 4-28-10, 7-31-18.*