

TECHNICAL REVIEW AND ADVISORY PANEL

ONSITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS

ADVISORY TO THE DEPARTMENT OF HEALTH

AUTHORITY: SECTION 381.0068, FLORIDA STATUTES

TECHNICAL REVIEW AND ADVISORY PANEL (TRAP) MEETING

DATE: Friday, November 16, 2012
TIME: 10:00 A.M.
PLACE: Conference Call Meeting
Teleconference Phone Number: (888) 670-3525
At the prompt, enter the
Participant Code: 2980214500

For those who wish to attend the meeting in person, the teleconference will originate from :

Capital Circle Office Complex,
Conference Room 240P
4042 Bald Cypress Way,
Tallahassee, Florida 32399

THIS MEETING IS OPEN TO THE PUBLIC.

AGENDA

1. Introductions
2. Election of Chair and Vice-chair
3. Review minutes of last meeting
4. New Issues
 - 12-02 HB 1263 changes - Bedroom Definition, Modifications, Abandonments, Permit Expiration, Performance-based treatment systems and Title Transfer.
 - 12-03 Existing Systems
5. Issues already approved by TRAP that are included in the upcoming rulemaking:
 - 09-07 Low Pressure Design
 - 09-13 Septage Storage Tanks
 - 10-1 Lower Flow Rates for Larger Houses
 - 10-05 Part II (Florida Keys) SN 550, Update Standards
 - 10-09 LTAR and Alternative Drainfield Geometry for PBTS
6. Other items of interest to the Technical Review and Advisory Panel.
7. Public Comment

Scott Johnson
PROFESSIONAL ENGINEER

William Sirmans
COUNTY HEALTH DEPARTMENT

Paul Steinbrecher
LOCAL GOVERNMENT

Pam Tucker
REAL ESTATE INDUSTRY

Frank Dragoun
CONSUMER

Ken Odom, Chair
HOME BUILDING INDUSTRY

Derek Woodruff
SEPTIC TANK INDUSTRY

Scott Franz
SOIL SCIENTIST

Roy Pence, Vice Chair
HOME BUILDING INDUSTRY

Robert Baker
SEPTIC TANK MANUFACTURER

Sonia Cruz
ENVIRONMENTAL HEALTH

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MINUTES OF MEETING
TECHNICAL REVIEW AND ADVISORY PANEL
October 11, 2011

Members present were:

Scott Johnson, P. E., Florida Engineering Society
Pamela Tucker, Real Estate Professional
Derek Woodruff, Septic Tank Industry
Greg Liskey, Septic Tank Manufacturer
William Sirmans, County Health Department
Roy Pence, Home Building Industry, Vice Chairman
Ken Odom, Home Building Industry, Chairman
Sonia Cruz, Florida Environmental Health Association
Frank Dragoun, Consumer Representative

Alternate members present:

Glenn Bryant, County Health Department
Mark Cotton, Home Building Industry
Edward Cordova, Local Government

Department of Health staff present:

Gerald Briggs, Chief, Onsite Sewage Programs
Dale Holcomb, Environmental Administrator
Ed Williams, Environmental Health Program Consultant
Eberhard Roeder, Professional Engineer
Elke Ursin, Environmental Health Program Consultant
Kara Loewe, Computer and Data Support

Absent members and alternates:

Clay Tappan, Florida Engineering Society
Tony Macaluso, Real Estate Professional
Martin Guffy, Septic Tank Industry
Ellen Vause, Septic Tank Manufacturer
Scott Franz, Soil Scientist
Oren C. Reedy, Soil Scientist
Paul Steinbrecher, Local Government

Speakers:

Elke Ursin, Environmental Health Program Consultant; Research and Review Advisory
Committee Update

Others present:

Patti Sanzone, Florida Department of Environmental Protection
Damann Anderson, Professional Engineer

Bart Harriss, Environmental Health Program Consultant
Roxanne Groover, Florida Onsite Wastewater Association
Michael Dreyer, Hillsborough County Health Department
Sam Averett, Septic Tank Industry

Chairman Odom welcomed the meeting attendees and called the meeting to order at 10:00 AM. Most members attended via telephone. Mr. Williams called roll for the panel members.

Nominations for Chair and Vice-Chair were requested. Ken Odom was re-elected for Chair and Roy Pence was re-elected for Vice-Chair.

A review of the December 2, 2010 meeting minutes followed. Mr. Liskey, seconded by Mr. Dragoun, motioned to approve the previous minutes with no changes. The minutes were approved by unanimous vote.

RRAC Update by Elke Ursin

Nitrogen Study Update Notes:

- Laws of Florida, 2008-152, directed FDOH to conduct a study to further develop more "passive" & cost-effective nitrogen reduction strategies for OSTDS
- Initiated the Florida Onsite Sewage Nitrogen Reduction Strategies (FOSNRS) Project in 2009
- Did lab scale study in 2008 on passive nitrogen removal with promising results
- Built on these results and installed pilot scale units with various media combinations at the Gulf Coast Education and Research Center (University of Florida IFAS)
- Results from two-stage passive biofilter are encouraging after 12 months of testing, showing a TN reduction of over 95% (2.6 mg/L). Strength of STE is about 61 mg/L of TN. Biofilter media is clinoptilolite and sulphur based. Other media we're looking at: expanded clay, polystyrene, and lignocellulosic material.
- Not much difference between single pass and recirculation.
- Will take the more promising media combinations and install full-scale systems at actual homesites in the near future and sample those.
- Also testing reactive media in a more in-situ/in-ground system approach.

The TRAP discussed the amount of money spent on the nitrogen study and the amount needed to complete the study. A suggestion was made to write a letter to the legislature to request the funding needed to finish the project. Mr. Dragoun, seconded by Mr. Liskey, motioned to approve this request. The motion was approved by unanimous vote.

Research Priorities:

1. Continuation of Inventory of OSTDS in Florida
 - Update the current inventory from 2009 and develop a method to make this process easier for future efforts.
2. Effectiveness of Outlet Filters
 - Determine whether outlet filters are performing as expected/described and not causing unnecessary expense to the homeowner as in unnecessary cleanings and or pump outs.
 - Determine average maintenance frequency such as filter cleaning or pump outs.
 - Determine whether Department's Approval Standards for Outlet Filters are adequate.

3. Life Expectancy of Onsite Systems
 - Determine the life expectancy of a septic tank and various kinds of drainfields.
4. Drip Disposal With Septic Tank Quality Effluent
 - Determine the effectiveness of permitting drip disposal using septic tank quality effluent.
 - Determine maintenance requirements and how these can be assured.
5. Correlations Between Water Quality, OSTDS, and Health Effects
 - Perform an analysis using a geographic information system (GIS) of any correlations between water quality in drinking water wells, OSTDS, and health effects.

Mr. Liskey, seconded by Ms. Cruz, motioned to approve the research priorities as presented by Ms. Ursin. The research priorities were approved by unanimous vote.

Issue 07-21 – Excavation Inspections
Rule Section: 64E.6.003

Some soil replacements are too deep to be checked during final inspections. The proposed changes provide uniform criteria for when to require excavation inspections. The proposal requires an excavation inspection when the bottom of the excavation is more than six feet below the bottom of the drainfield. The issue was initially brought up by the TRAP because excavation inspections vary from one county health department to another as well as required fees. The following discussion brought up issues of concern such as walkout requirements (OSHA/FL Trench Safety Act), safety issues, difficulty of taking excavation material off-site or spread on-site, situations where water has filled in the excavation hole, how many systems require these deep inspections state-wide, costs, and fees. Mr. Pence, seconded by Mr. Dragoun, motioned to table the issue to allow input from septic contractors and county health departments. A unanimous vote by the panel to table followed.

Issue 08-15 – Bedroom Definition
Rule Sections: 64E-6.002

The proposal develops a bedroom definition that is more consistent with the Building Commission Bedroom Definition Workgroup's preferred option. Comments and concerns were discussed. Comments and discussion included upcoming legislative proposals and concern over having to define numerous rooms, allowing the legislature to act on this issue, home sale issues, sizing based on number of persons per bedroom, and others. Mr. Johnson, seconded by Ms. Cruz, motioned to approve the issue as written. A vote was taken with seven members voting yes to approve the issue and three voting no. The motion carried. The three dissenting votes were from Pam Tucker, Roy Pence, and Ken Odom.

Issue 10-04 – Sand Lined Trenches
Rule Sections: 64E-6.008

Mr. Mike Sundin with Apalachee Backhoe originated this issue. The proposed changes would allow the installation of a sand liner beneath the drainfield trench in non-karst settings to allow effluent to percolate rapidly from the trench into the sand liner down to the seasonal high water table. Mr. Sundin explained some of the problems encountered in clay type soils and that providing the sand liner prevents ponding in the drainfield. This practice is currently being utilized by many contractors across the state. Gerald explained that this technique was not currently approved because it does not meet the excavation requirements. It was suggested to include language that would require the drainfield to be sized on the most restrictive soil

texture/loading rate. Mr. Liskey, seconded by Mr. Johnson, motioned to approve with the proposed changes. The motion carried with unanimous vote by the panel.

Issue 10-05 – Part II (Florida Keys) SB550, Update Standards
Rule Sections: 64E-6.017, 018, 0181, 0182

The proposed changes incorporate repair standards for systems in areas where sewer will be available by the end of 2015 and clarify options for onsite systems in the Florida Keys. Mr. Holcomb explained the changes proposed in this section that answered the panels concerns from previous meetings. These issues included mean high water elevations/wet season water tables, the 0.9 loading rate for sand-lined drainfield utilizing a septic tank, clarifying soil depths regarding sand liners and nutrient reducing material, and depth of sand filters. Mr. Johnson, seconded by Ms. Cruz, motioned to approve. The motion carried with unanimous vote by the panel.

Issue 10-09 – LTAR and Alternative Drainfield Geometry for PBTS
Rule Sections: 64E-6.028

Mr. Holcomb said this issue deletes a part of the rule that has never been used. The issue was passed by the TRAP and was taken to the Variance Review and Advisory Committee for comment. Variance Committee comments regarding the issue were made available for discussion. There was no further discussion and Mr. Liskey, seconded by Mr. Woodruff, motioned to approve. The motion carried with unanimous vote by the panel.

Issue 10-11 – PBTS Design Standards
Rule Sections: 64E-6.0295
Issue 08-09 – Innovative Systems – Test Data Required
Rule Sections: 64E-6.004, 64E-6.026, 64E-6.027, 64E-6.0295, 64E-6.030

These two issues were combined.

The proposed changes consolidate innovative requirements to a single rule section and allows more sources of data and allows one development system as a step to allowing twelve demonstration systems. Intent of the language is to utilize the technology from the research program. Under current standards it would be difficult to bring these technologies into Florida. A conference call with industry has been scheduled for October 17, 2011. Comments and concerns were discussed. Mr. Liskey, seconded by Mr. Woodruff, motioned to table the issue to give department staff time to discuss specifics of the issue with industry representatives. A vote was taken with seven members voting yes to table the issue and three voting no. The motion carried. The three dissenting votes were from Scott Johnson, Sonia Cruz, and Frank Dragoun.

Issue 10-13 – Portable Restroom and Holding Tank Permitting
Rule Sections: 64E-6.0101, 030

Eric Anderson with the Portable Restroom Industry originated this issue. The proposed language deals with the permitting fees for permanently placing portable restrooms and holding tanks. The proposed changes require a permit fee only (\$35) for permanent placement of a portable restroom. The proposal also provides that one permit can cover all permanent portable restrooms or all stationary holding tanks at a single site. Mr. Holcomb did not have the information requested regarding the number of these applications and Eric Anderson was not

present to speak on the issue. Mr. Liskey, seconded by Mr. Dragoun, motioned to table the issue to allow Mr. Holcomb to get the requested information and to allow Mr. Anderson to speak on the issue. A unanimous vote by the panel to table followed.

Issue 10-14 – Setback from DEP Water Main
Rule Sections: 64E-6.005

The proposal requires OSTDS to be 10 feet from public water mains that are 3" diameter or larger. This coincides with DEP rules which require a 10-foot setback between onsite systems and water mains. The issue was taken to the Variance Review and Advisory Committee. Variance Committee comments regarding the issue were made available for discussion. There was no further discussion and Mr. Liskey, seconded by Mr. Johnson, motioned to approve. The motion carried with unanimous vote by the panel.

Issue 10-18 – Repair Permit Fees
Rule Sections: 64E-6.003

Mr. Holcomb explained the premise of the issue that proposes to eliminate the repair permit fee exemption for systems that fail within one year of initial installation. The issue went the Variance Review and Advisory Committee for comment. Variance Committee comments regarding the issue were made available for discussion. Mr. Woodruff, seconded by Ms. Cruz, motioned to approve the issue. The motion carried with unanimous vote by the panel.

Issue 10-21 – DEP/DOH Interagency Agreement
Rule Sections: 64E.6.001

The existing DEP/DOH Interagency Agreement deals with coordination between DEP and DOH about jurisdictional issues. The Interagency Agreement has never been incorporated into rule. The issue was taken to the Variance Review and Advisory Committee. Variance Committee comments regarding the issue were made available for discussion. Mr. Johnson, seconded by Ms. Cruz, motioned to approve incorporation of the Interagency Agreement into the rule. The panel concurred and the motion carried.

Issue 11-01 – Drainlines the same length
Rule Sections: 64E.6.014

The proposed changes clarify that drainline lengths shall be within 10 feet of one another for lift-dosed and gravity-fed systems. This clarifies DOH interpretation of what "as near as practical" means which has been in effect for several years. The ten foot allowance was based on alternative product units which usually come in ten foot lengths or less. The DOH attorneys were concerned with the arbitrary statement of "as near as practical". Comments and concerns were discussed. Mr. Johnson, seconded by Mr. Dragoun, motioned to approve the issue. A vote was taken with five members voting yes to approve the issue, four voting no, and one abstained. The motion carried. The dissenting votes were from Derek Woodruff, Greg Liskey, Mark Cotton, and Ken Odom. Pam Tucker abstained.

Issue 11-02 – Expiration of permits between Construction Approval and Final Approval
Rule Sections: 64E.6.003

The proposed changes provide an avenue by which permit holders of expired permits can complete the project at a minimal expense under original permit conditions provided the

system was installed meeting the tank requirements of 2002. Mr. Briggs explained that this is currently a problem statewide due to the construction market being so slow. The research surcharge would be part of the fee. Mr. Liskey, seconded by Ms. Cruz, motioned to approve. The motion carried with unanimous vote by the panel.

Issue 11-03 – Land Application on Phosphorous-limited areas
Rule Sections: 64E.6.010

The proposal prohibits land application of septage in phosphorous-limited areas. These areas include the Lake Okeechobee Basin, the Caloosahatchee River Basin, and the St. Lucie River Basin. Currently, no land applications sites remain in the affected areas. It would be very difficult and cost prohibited for an applicant to attempt to land apply in these areas. Ms. Cruz, seconded by Mr. Cordova, motioned to approve the issue. The motion carried with unanimous vote by the panel.

There was discussion regarding travel to future meetings and the capability to allow the TRAP to meet. Mr. Briggs indicated that travel could not be reimbursed at this time.

The meeting adjourned at approximately 3:00 PM.

12-02 ISSUE FOR TECHNICAL REVIEW AND ADVISORY PANEL CONSIDERATION

Printed 11/1/2012 9:02:57 AM

Next Trap Meeting: 11/16/2012

Subject: HB 1263 changes - Bedroom Definition, Modifications, Abandonments, Permit Expiration, Performance-based treatment systems and Title Transfer.

Rule Sections: 64E-6.001, 003, 011, 030

Issue: LOF 2012-184 (HB 1263) amended 381.0065, Florida Statutes, pre-empting or obsoleting several rule provisions.

Issue Originated By: Dale Holcomb, DOH

Justification: The proposed changes bring the rule into alignment with the provisions of 381.0065 that were changed by LOF 2012-184 (HB 1263) with regard to bedroom definition, modifications, abandonments, title transfer, performance-based treatment systems, and permit expiration.

Proposed Rule Change: 12-02--HB 1263 substantive changes to 64E-6.doc (See Attached)

Summary: Changes rule as necessary to implement the provisions of 381.0065 that were changed by LOF 2012-184 (HB 1263)

Possible Financial Impacts: will reduce costs to property owners with permits that expire between construction approval and final approval, owners of undamaged systems at properties destroyed by disaster and owners planning building additions that contain no bedrooms.

Date New: 5/21/2012

Initially Reviewed by Trap:

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:

1
2 **64E-6.001 General.**

3 **SEE ISSUE 12-03 FOR CHANGES IN 64E-6.001 INCORPORATING HB 1263**

4 (1) through (3) No change

5 (4) Except as provided for in Section 381.00655, F.S., any existing and prior approved system which has been placed into
6 use and which remains in satisfactory operating condition shall remain valid for use under the terms of the rule and permit
7 under which it was approved. Alterations that change the conditions under which the system was permitted and approved,
8 sewage characteristics or increase sewage flow will require that the owner, or their authorized representative, apply for and
9 receive reapproval of the system by the DOH county health department, prior to any alteration of the structure, or system. If an
10 applicant requests that the department consider the previous structure's or establishment's most recent approved occupancy, the
11 applicant must provide written documentation that the onsite sewage treatment and disposal system was approved by the
12 department for that previous occupancy. An applicant will be required to complete Form DH 4015, 08/09, Application for
13 Construction Permit, herein incorporated by reference, and provide a site plan in accordance with paragraph 64E-6.004(3)(a),
14 F.A.C., to provide information of the site conditions under which the system is currently in use and conditions under which it
15 will be used. The applicant shall have all system tanks pumped by a permitted septage disposal service. A registered septic tank
16 contractor, state-licensed plumber, person certified under Section 381.0101, F.S., or master septic tank contractor shall
17 determine the tank volume and shall perform a visual inspection of the tank when the tank is empty to detect any observable
18 defects or leaks in the tank. The tank volume shall be obtained from the tank legend or shall be calculated from measured
19 internal tank dimensions for length, width and depth to the liquid level line or from the measured outside dimensions for length
20 and width minus the wall thickness and depth to the liquid level line. For odd shaped tanks and tanks without a legend, metered
21 water flows from the refilling of the tank may be used in lieu of measured inside or outside tank dimensions. The person
22 performing the inspection shall submit the results to the DOH county health department as part of the application using page 4
23 of Form DH 4015. If a prior approved existing system has been approved by the DOH county health department within the
24 preceding three years, and the system was determined to be in satisfactory operating condition at that time, a new inspection is
25 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
26 application fee shall be charged for this application and approval. A commercial system out of service for more than one year
27 shall be brought into full compliance with current requirements of this chapter prior to the system being placed into service. If
28 the use of a building is changed or if additions or alterations to a building are made which will increase domestic sewage flow,
29 change sewage characteristics, or compromise the integrity or function of the system, the onsite sewage treatment and disposal
30 system serving such building shall be brought into full compliance with the provisions and requirements of these rules. Proper
31 well setbacks shall be maintained. Prior to any modification of the system, the owner shall apply for and obtain a permit for
32 modification of the system from the county health department in accordance with Rule 64E-6.004, F.A.C. The permit shall be
33 valid for 18 months from the date of issue. Where building construction has commenced, it shall be valid for an additional 90
34 days. Necessary site investigations and tests shall be performed at the expense of the owner by either an engineer with soils
35 training who is licensed in the state of Florida pursuant to Chapter 471, F.S., registered septic tank contractors, master septic
36 tank contractors, or persons certified under Section 381.0101, F.S., or department personnel for the appropriate fee specified in
37 Section 381.0066, F.S.

38 381.0065(4)(aa) A modification, replacement, or upgrade of an onsite sewage
39 treatment and disposal system is not required for a remodeling addition
40 to a single-family home if a bedroom is not added.

41 (a) For residences, flows shall be calculated using new system criteria for bedrooms and building area, including existing
42 structures and any proposed additions. Table I and footnotes shall apply. ~~For example, a current three bedroom, 1300 square~~
43 ~~foot home would be able to add building area to have a total of 2250 square feet of building area with no change in their~~
44 ~~approved system, provided no additional bedrooms are added.~~ No part of the existing structure, or the addition to the structure
45 shall be allowed to cover any part of the system. Non-load bearing structures, such as a concrete patio floor, are allowed to
46 cover the septic tank, provided that access to the tank is provided for maintenance. The structure above the septic tank shall
47 have a minimum opening of 225 square inches at each end of the septic tank for access into the tank. The structure shall not be
48 in direct contact with the tank. A barrier of soil or plastic shall be used between the tank and non-load bearing structure.
49 Provided that a modification, replacement, or upgrade of an onsite sewage treatment and disposal system is not required for a
50 remodeling addition if a bedroom is not added. ~~For those residences that add sewage flow, the system shall be required to be~~
51 altered to meet the following criteria:

52 1. The septic tank need not be replaced if it is structurally sound and is within one tank size of the required specifications
53 found in Table II, for the proposed structure. An approved outlet filter shall be installed if one is currently not in place.

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

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

61 addition to the residence.

62 4. Any system where the tank needs to be replaced or is replaced as part of a system upgrade shall be brought into full
63 compliance with all new system specifications.

64 5. If the existing system is disconnected from a structure that was made unusable or destroyed following a disaster and if
65 the system was properly functioning at the time of disconnection and not adversely affected by the disaster, the onsite sewage
66 treatment and disposal system may be reconnected to a rebuilt structure if:

67 a. The reconnection of the system is to the same type of structure which contains the same number of bedrooms or fewer,
68 if the square footage of the structure is less than or equal to 110 percent of the original square footage of the structure that
69 existed before the disaster;

70 b. The system is not a sanitary nuisance; and

71 c. The system has not been altered without prior authorization.

72 381.0065(4)(y)1. An onsite sewage treatment and disposal system is not considered
73 abandoned if the system is disconnected from a structure that was made
74 unusable or destroyed following a disaster and if the system was properly
75 functioning at the time of disconnection and not adversely affected by the
76 disaster. The onsite sewage treatment and disposal system may be
77 reconnected to a rebuilt structure if:

78 a. The reconnection of the system is to the same type of structure which
79 contains the same number of bedrooms or fewer, if the square footage of the
80 structure is less than or equal to 110 percent of the original square footage of
81 the structure that existed before the disaster;

82 b. The system is not a sanitary nuisance; and

83 c. The system has not been altered without prior authorization.

84 2. An onsite sewage treatment and disposal system that serves a
85 property that is foreclosed upon is not considered abandoned.

86 (b) through (g) No change

87 (5) through (7) No change

88 *Rulemaking Authority 381.0065(3)(a), 489.553(3), 489.557(1) FS. Law Implemented 381.0065, 381.0067, 386.041, 489.553*
89 *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-*
90 *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,_____.*

91 **64E-6.002 Definitions.**

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

93 (1) through (10) No change

94 (11) Bedroom – as defined by Section 381.0065(2), F.S. a room designed primarily for sleeping or a room which is
95 expected to routinely provide sleeping accommodations for occupants.

96 381.0065(2) DEFINITIONS.—As used in ss. 381.0065-381.0067, the term:

97 381.0065(2)(b)1. "Bedroom" means a room that can be used for sleeping and that:

98 a. For site-built dwellings, has a minimum of 70 square feet of
99 conditioned space;

100 b. For manufactured homes, is constructed according to standards of the
101 United States Department of Housing and Urban Development and has a
102 minimum of 50 square feet of floor area;

103 c. Is located along an exterior wall;

104 d. Has a closet and a door or an entrance where a door could be
105 reasonably installed; and

106 e. Has an emergency means of escape and rescue opening to the outside.

107 2. A room may not be considered a bedroom if it is used to access another
108 room except a bathroom or closet.

109 3. "Bedroom" does not include a hallway, bathroom, kitchen, living room,
110 family room, dining room, den, breakfast nook, pantry, laundry room,
111 sunroom, recreation room, media/video room, or exercise room.

112 (12) through (59) No change

113 *Rulemaking Authority 381.0011(4), (13), 381.0065(3)(a) FS. Law Implemented 381.0065, 381.00655 FS. History—New 12-22-*
114 *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-*
115 *06,_____.*

116 **64E-6.003 Permits.**

117 (1) System Construction Permit – No portion of an onsite sewage treatment and disposal system shall be installed,

18 repaired, altered, modified, abandoned or replaced until a construction permit has been issued on Form DH 4016, 08/09,
19 Construction Permit, herein incorporated by reference. If building construction has commenced, the system construction permit
20 shall be valid for an additional 90 days beyond the eighteen month expiration date. A fee shall not be charged for a repair
21 permit issued within 12 months from the date of final authorization of the onsite sewage treatment and disposal system. If a
22 construction or repair permit for an onsite sewage treatment and disposal system is transferred to another person the date of the
23 construction or repair permit shall not be amended, but shall run from the date of original issuance prior to the transfer.
24 Servicing or replacing with like kind mechanical or electrical parts of an approved onsite sewage treatment and disposal
25 system; pumping of septage from a system; or making minor structural corrections to a tank, or distribution box, does not
26 constitute a repair.

27 (2) through (5) No change

28 (6) Expired Permits - Any new construction, repair, or modification permit issued by the department with an expiration
29 date of September 1, 2008, through December 31, 2009, that has received construction approval within the previous five years
30 but has not received final approval may be approved provided all of the following conditions are met:

31 (a) The applicant or agent provides a written statement that there have been no changes in application or site conditions
32 from the original permit. The statement must specifically address any changes on adjacent lots. ~~If there are any changes a site~~
33 ~~re-evaluation is required.~~

34 (b) A site re-evaluation confirms that fundamental site conditions have not changed since construction approval.

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

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

39 381.0065(4)(z) If an onsite sewage treatment and disposal system permittee receives,
40 relies upon, and undertakes construction of a system based upon a validly
41 issued construction permit under rules applicable at the time of construction
42 but a change to a rule occurs within 5 years after the approval of the system
43 for construction but before the final approval of the system, the rules
44 applicable and in effect at the time of construction approval apply at the time
45 of final approval if fundamental site conditions have not changed between
46 the time of construction approval and final approval.

47 (7) No change

48 *Rulemaking Authority 381.0065(3)(a), 489.553(3), 489.557(1) FS. Law Implemented 381.0065, 381.0067, 386.041 FS.*
49 *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-*
50 *6.043, Amended 3-22-00, 4-21-02, 5-24-04, 11-26-06, 6-25-09, 4-1-10, 4-28-10,_____.*

51 64E-6.011 Abandonment of Systems.

52 381.0065(4)(y)1. An onsite sewage treatment and disposal system is not considered
53 abandoned if the system is disconnected from a structure that was made
54 unusable or destroyed following a disaster and if the system was properly
55 functioning at the time of disconnection and not adversely affected by the
56 disaster. The onsite sewage treatment and disposal system may be
57 reconnected to a rebuilt structure if:

58 a. The reconnection of the system is to the same type of structure which
59 contains the same number of bedrooms or fewer, if the square footage of the
60 structure is less than or equal to 110 percent of the original square footage of
61 the structure that existed before the disaster;

62 b. The system is not a sanitary nuisance; and

63 c. The system has not been altered without prior authorization.

64 2. An onsite sewage treatment and disposal system that serves a
65 property that is foreclosed upon is not considered abandoned.

66 (1) Whenever the use of an onsite sewage treatment and disposal system is discontinued following connection to a sanitary
67 sewer, ~~following condemnation or demolition or removal or destruction, of a building or property,~~ or discontinuing the use of a
68 septic tank and replacement with another septic tank, the system shall be abandoned within 90 days and any further use of the
69 system for any purpose shall be prohibited. However, if the Department of Environmental Protection or its designee approves
70 the use of the retention tank where the tank is to become an integral part of a sanitary sewer system or stormwater management
71 system, the septic tank need not be abandoned.

72 (2) through (4) No change

73 *Rulemaking Authority 381.0065, 489.553, 489.557 FS. Law Implemented 381.0065, 381.00655, 381.0066, Part I 386 FS.*
74 *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-*
75 *03, 6-25-09,_____.*

12-03 ISSUE FOR TECHNICAL REVIEW AND ADVISORY PANEL CONSIDERATION

Printed 11/1/2012 8:50:32 AM

Next Trap Meeting: 11/16/2012

Subject: Existing Systems

Rule Sections: 64E-6.001

Issue: Current language has been amended and re-amended and is confusing. Need to incorporate HB 1263 (LOF 2012-184)

Issue Originated By: Gerald Briggs, DOH

Justification: The proposed changes simplifies the language related to existing systems and modifications. Allows for tank additions rather than new standards for any tank addition, allows tank certification to be honored for five years. No modification for houses with no bedroom addition.

Proposed Rule Change: 12-03--64E-6.001_Existing systems 10-22-2012.doc (See Attached)

Summary: Simplifies the language related to existing system modification. Reduces requirements, provides more options for some modifications.

Possible Financial Impacts: eliminates "new" requirement for tank addition. Allows pumping certificate to be honored for five years rather than current three.. Should reduce costs to homeowners and business owners.

Date New:

10/22/2012

Initially Reviewed by Trap:

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:

1 | **64E-6.001 General.**

2 | (1) The provisions of Part I of this chapter shall apply to all areas of the state except where specific provisions
3 | of law or other parts of this chapter provide a specific exemption or modification to those provisions. The provisions
4 | of this chapter must be used in conjunction with Chapter 381 and Part III, Chapter 489, F.S.

5 | (2) Structures used or intended for human occupancy, employment or service to the public and locations where
6 | people congregate, such as construction sites, fairs, and field locations for agricultural workers shall provide
7 | approved wastewater treatment and disposal systems. Except for the provisions of Rule 64E-6.0101, F.A.C.,
8 | permanent structures shall not rely upon the use of holding tanks and portable toilets for wastewater treatment and
9 | disposal.

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

12 | (4) Except as provided for in Section 381.00655, F.S., any existing and prior approved system which has been
13 | placed into use and which remains in satisfactory operating condition shall remain valid for use under the terms of
14 | the rule and permit under which it was approved. Alterations that change the conditions under which the system was
15 | permitted and approved, sewage characteristics or increase sewage flow will require that the owner, or their
16 | authorized representative, apply for and receive reapproval of the system by the DOH county health department,
17 | prior to any alteration of the structure, or system. If an applicant requests that the department consider the previous
18 | structure's or establishment's most recent approved occupancy, the applicant must provide written documentation
19 | that the onsite sewage treatment and disposal system was approved by the department for that previous occupancy.

20 | (a) An applicant will be required to complete Form DH 4015, 08/09, Application for Construction Permit,
21 | herein incorporated by reference, and provide a site plan in accordance with paragraph 64E-6.004(3)(a), F.A.C., to
22 | provide information of the site conditions under which the system is currently in use and conditions under which it
23 | will be used.

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

33 | (c) If a prior approved existing system has been approved by the DOH county health department within the
34 | preceding three-five years, and the system was determined to be in satisfactory operating condition at that time, a
35 | new inspection is not required unless there is a record of failure of the system. If it is determined that a new
36 | inspection is not required, only the application fee shall be charged for this application and approval. ~~A commercial
37 | system out of service for more than one year shall be brought into full compliance with current requirements of this
38 | chapter prior to the system being placed into service.~~

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

43 | 1. Proper well setbacks shall be maintained.

44 | 2. Prior to any modification of the system, the owner shall apply for and obtain a permit for modification of the
45 | system from the county health department in accordance with Rule 64E-6.004, F.A.C. The permit shall be valid for
46 | 18 months from the date of issue. Where building construction has commenced, it shall be valid for an additional 90
47 | days.

48 | 3. Necessary site investigations and tests shall be performed at the expense of the owner by either an engineer
49 | with soils training who is licensed in the state of Florida pursuant to Chapter 471, F.S., registered septic tank
50 | contractors, master septic tank contractors, or persons certified under Section 381.0101, F.S., or department
51 | personnel for the appropriate fee specified in Section 381.0066, F.S.

52 | (ae) For residences, flows shall be calculated using new system criteria for bedrooms and building area,
53 | including existing structures and any proposed additions. Table I and footnotes shall apply. ~~For example, a current
54 | three bedroom, 1300 square foot home would be able to add building area to have a total of 2250 square feet of
55 | building area with no change in their approved system, provided no additional bedrooms are added. No part of the
56 | existing structure, or the addition to the structure shall be allowed to cover any part of the system. Non-load bearing
57 | structures, such as a concrete patio floor, are allowed to cover the septic tank, provided that access to the tank is
58 | provided for maintenance. The structure above the septic tank shall have a minimum opening of 225 square inches at
59 | each end of the septic tank for access into the tank. The structure shall not be in direct contact with the tank. A
60 | barrier of soil or plastic shall be used between the tank and non-load bearing structure. Provided that a modification,
61 | replacement, or upgrade of an onsite sewage treatment and disposal system is not required for a remodeling addition~~

62 | ~~if a bedroom is not added.~~ For those residences that add sewage flow, the system shall be required to be altered to
63 | meet the following criteria:

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

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

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

77 | ~~4. Any system where the tank needs to be replaced or is replaced as part of a system upgrade shall be brought~~
78 | ~~into full compliance with all new system specifications.~~

79 | (b) For commercial establishments, the system shall not be required to be altered if domestic sewage flow is
80 | not expected to increase by more than 20% of original design flow or require more than one tank size adjustment. A
81 | department approved outlet filter device shall be installed. ~~Any commercial system where the tank needs to be~~
82 | ~~replaced shall be brought into full compliance with all new system specifications.~~ Any system which is used to
83 | treat and dispose of commercial wastewater shall be brought into full compliance with the provisions and
84 | requirements of current rules when there is any increase in sewage flow or change in characteristics.

85 | (eg) These requirements do not authorize a residence or establishment to exceed the lot flow allowances
86 | authorized under paragraph 64E-6.005(7)(c), F.A.C. Establishments that currently exceed lot flow allowances shall
87 | not be allowed to increase sewage flow.

88 | ~~(d) Any system which is used to treat and dispose of commercial wastewater shall be brought into full~~
89 | ~~compliance with the provisions and requirements of current rules when any change in sewage flow or characteristics~~
90 | ~~is made.~~

91 | ~~(e) Repair of the system to repair system standards shall not alter the standards found in this subsection for~~
92 | ~~existing system use or modification.~~

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

98 | ~~(g) Where the current structure exceeds the design capacity of the existing system, the system shall not be~~
99 | ~~allowed for use with any addition.~~

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

102 | (5) The department Procedure for Voluntary Inspection and Assessment of Existing Systems, May, 2000, herein
103 | incorporated by reference, shall be applied except in situations pertaining to an increase in sewage flow or change in
104 | sewage characteristics, or failure of the system. The inspection is designed to assess the condition of a system at a
105 | particular moment in time. The inspection will identify obviously substandard systems, for example systems without
106 | drainfields. The inspection is not designed to determine precise code compliance, nor provide information to
107 | demonstrate that the system will adequately serve the use to be placed upon it by this or any subsequent owner.
108 | Nothing in this section shall be construed to limit the amount of detail an inspector may provide at their professional
109 | discretion. Persons allowed to perform work under this section shall be master septic tank contractors, registered
110 | septic tank contractors, state-licensed plumbers, and persons certified under Section 381.0101, F.S. Department
111 | employees are excluded from performing these evaluations. Aerobic treatment units and performance-based
112 | treatment systems shall not be evaluated using this criteria, but shall be evaluated by the approved maintenance
113 | entity which maintains the unit or system. Nothing in this section restricts the person having ownership of, control
114 | of, or use of an onsite sewage treatment and disposal system from requesting a partial inspection. The inspector shall
115 | provide the person requesting the inspection a copy of the department Procedure for Voluntary Inspection and
116 | Assessment of Existing Systems and written notice of their right to request an inspection based on part or all of the
117 | standards.

118 | (6) Citations issued by the department shall be on Form DH 3146, 11/02, Citation for Violation, Onsite Sewage
119 | Programs/ Sanitary Nuisance, hereby incorporated by reference.

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



09-07 ISSUE FOR TECHNICAL REVIEW AND ADVISORY PANEL CONSIDERATION

Printed 11/1/2012 7:48:12 AM

Next Trap Meeting: 11/16/2012

Subject: Low pressure design

Rule Sections: 64E-6.014

Issue: Large drainfields may be split into two because of space limitations. Using 2 pumps, when each drainfield is under 1000 s.f., low pressure dosing is no longer justified.

Issue Originated By: David O. Scharr, PE

Justification: The proposed changes will allow a drainfield between 1000 and 2000 sq ft to be split into two drainfields, be lift dosed, and not have to be low-pressure dosed.

Proposed Rule Change: 09-07--64E-6.013_Splitting_dosed_systems.doc (See Attached)

Summary: Allows a drainfield between 1000 and 2000 sq ft to be split into two drainfields, be lift dosed, and not have to be low-pressure dosed.

Possible Financial Impacts: provides a lower-cost alternative to low-pressure dosing in moderately-sized systems.

Date New: 8/13/2009

Initially Reviewed by Trap: 8/27/2009

Tabled by Trap:

Trap Review Finished: 8/27/2009

Variance Committee Reviewed: 10/1/2009

Trap Review Variance Comments: 1/28/2010

Trap Final Decision: 1/28/2010

Final Outcome: approve

Comments: this issue originated as issue 08-17 that contained multiple issues. 8/27/09 TRAP Passed to go to Variance Committee. Added "equal in size" per comments.

10/1/09 Variance committee comments:

REI-No

STI-I agree but do not agree that you need two pumps as there are flow dividers available

HBI-Good

DEP-Sounds like a good idea in general. How does one insure that the dosing is equally distributed between the drainfields? More specifically, how is the surface loading rate maintained between the drainfields?

ENG-No. But low pressure dosing should be considered. I would thing not much savings here. Moving in the wrong direction with dosing.

SHO-This proposal is detrimental to public health. Low pressure dosing of systems >1000 square feet has been around for over 20 years. Research

shows low pressure dosed systems function better over the long run as it distributes effluent evenly over the entire drainfield, probably increasing system life. Lift dosing was really meant for a gravity flow problem. The functionality of the system will suffer, hence so will the owner. This still requires an engineer to design. Horrible suggested change.

CHD-I don't like it. We should be permitting more low pressure dosed systems not less. Leave the rule as it is.

1/28/10 TRAP approved to go to RULE. 6-5 vote, 5 no votes concerned about poorer long-term performance of gravity system versus low pressure dosed systems.

Ready for Rule



In Rule



Rule Date:

4/1/2013

1
2 **64E-6.014 Construction Standards for Drainfield Systems**

3 (1) through (2) No change

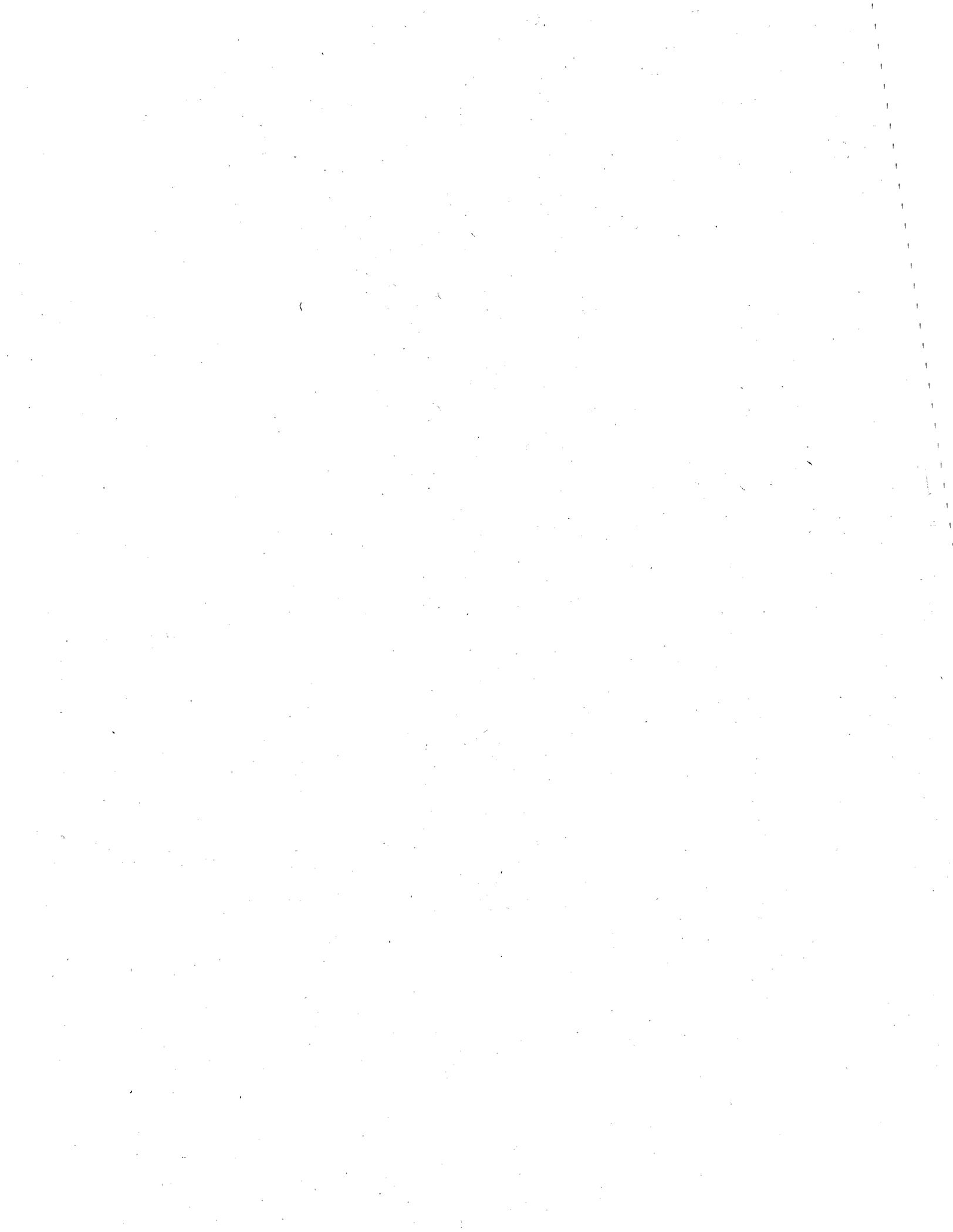
4 (3) Low-Pressure dosing - where the total required area of drainfield is greater than 1000 square feet or where the applicant
5 proposes to use low-pressure dosing, an automatic dosing device discharging into a low pressure distribution network consisting
6 of 2 inch or smaller diameter schedule 40 PVC or equal pipe with ½ inch or smaller diameter drilled holes shall be used All
7 piping shall use solvent welded connections or equal throughout to prevent dislocation of connections under pressure. The
8 network shall be designed for equal distribution of effluent. For the purposes of this section, equal distribution shall mean that
9 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
10 selected pump capacity (as measured in Gallons Per Minute) versus total dynamic head shall be indicated on a pump curve and
11 shall be shown by calculation to achieve an effluent velocity through the network of at least 2 ft per second to the first exit hole
12 on each lateral. Each line of the pressure network shall individually connect to a pressure manifold and be sealed on their distal
13 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
14 mound, filled subsurface installation. Plans and equipment specifications for low-pressure dosing systems shall be approved by
15 the department prior to construction or installation.

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

19 (a) through (f) renumbered as (b) through (g) No change

20 (4) through (6) No change

21 Rulemaking Authority 381.0065(3)(a), FS. Law Implemented 381.0065, FS. History—New 12-22-82, Amended 2-5-85,
22 Formerly 10D-6.56, Amended 3-17-92, 1-3-95, Formerly 10D-6.056, Amended 2-3-98, 3-22-00, 05-24-04, 11-26-06, 06-25-
23 09.



09-13 ISSUE FOR TECHNICAL REVIEW AND ADVISORY PANEL CONSIDERATION

Printed 11/1/2012 7:47:50 AM

Next Trap Meeting: 11/16/2012

Subject: septage storage tanks

Rule Sections: 64E-6.010

Issue: current language lumped septage storage tanks into stabilization tank requirements in order to require them to meet some standard.. Some stabilization tank requirements are not applicable to storage tanks.

Issue Originated By: Dale Holcomb, DOH

Justification: The proposed changes eliminate the 3000-gallon minimum requirement for septage storage tanks.

Proposed Rule Change: 09-13--64E6.010_Storage_Tanks.doc (See Attached)

Summary: Eliminates the 3000-gallon minimum tank size requirement for septage storage tanks.

Possible Financial Impacts: Provides a cheaper alternative to large storage tanks.

Date New: 5/27/2009

Initially Reviewed by Trap: 1/28/2010

Tabled by Trap:

Trap Review Finished: 1/28/2010

Variance Committee Reviewed: 3/4/2010

Trap Review Variance Comments: 7/15/2010

Trap Final Decision: 7/15/2010

Final Outcome: approve

Comments: 8/27/09 Not heard. TRAP ran out of time.
1/28/10 TRAP approved to go to Variance committee.
3/4/10 Variance Comments: ENG-ok; REI-ok; STI-I agree smaller tanks should be allowed; CHD-No issue; DEP-as long as the tank meets construction standard, I think this is fine.; HBI-Sounds good.
7/15/10 TRAP passed to Rule

Ready for Rule

In Rule

Rule Date: 4/1/2013

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

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

9 (2) Application for a service permit shall be made to the DOH county health department on Form DH 4012,
10 01/92, "Application for Septage Disposal Service Permit, Temporary System Service Permit, Septage Treatment and
11 Disposal Facility, Septic Tank Manufacturing Approval" herein incorporated by reference. The following must be
12 provided for the evaluation prior to issuance of a service permit:

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

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

22 2. Construction of concrete tanks shall be at a minimum equal to that required of concrete septic tanks in Rule
23 64E-6.013. Fiberglass tanks and tanks of similar materials shall be constructed in accordance with standards found
24 in Rule 64E-6.013.

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

10-01 ISSUE FOR TECHNICAL REVIEW AND ADVISORY PANEL CONSIDERATION

Printed 11/1/2012 7:47:33 AM

Next Trap Meeting: 11/16/2012

Subject: Lower Flow rates for Large houses

Rule Sections: 64E-6.008, Table I

Issue: Current rule creates excessively high flows for houses over 4 bedrooms and 3300 square feet

Issue Originated By: Florida Building Commission

Justification: The proposed changes reduce the sewage flow increment for houses over four bedrooms and over 3300 square feet of building area. This reflects the Christiansen study and reflects the fact that bedrooms over 4 bedrooms are not as densely occupied as the first two bedrooms.

Proposed Rule Change: 10-01--64E-6.008_Large_house_increment.doc (See Attached)

Summary: reduces the flow increment to 60 gallons per bedroom over four bedrooms and per 750 square feet over 3300 square feet of building area.

Possible Financial Impacts: Should reduce the cost of installing an onsite sewage system for the affected houses.

Date New: 1/28/2010

Initially Reviewed by Trap: 1/28/2010

Tabled by Trap:

Trap Review Finished: 1/28/2010

Variance Committee Reviewed: 3/4/2010

Trap Review Variance Comments: 7/15/2010

Trap Final Decision: 7/15/2010

Final Outcome: approve

Comments: This was originally part of issue 08-15 regarding bedroom re-definition. The bedroom re-definition remains issue 08-15. TRAP approved this increment provision and separated it to go on for approval.
3/4/10 Variance Comments: ENG-do not have access to this study. Other systems should be considered such as surge tanks; REI-ok; STI-I agree but I think you should go to 5 bedrooms and 4050 square-foot home.; CHD-not a good idea; DEP-I don't think it should be changed on 4 bedroom houses. For houses with 5 or 6 bedrooms, this would work but not for 4-bedroom houses.; HBI-ok
7/15/10 TRAP passed to Rule

Ready for Rule

In Rule

Rule Date: 4/1/2013

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

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

4 (a) through (b) No change
 5

TABLE I
 For System Design
 ESTIMATED SEWAGE FLOWS

TYPE OF ESTABLISHMENT	GALLONS PER DAY
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 60 100 gallons per dwelling unit.	
(b) Other per occupant.....	50

6 Footnotes to Table I:

7 1. For food operations, kitchen wastewater flows shall normally be calculated as 66 percent of the total establishment
 8 wastewater flow.

9 2. Systems serving high volume establishments, such as restaurants, convenience stores and service stations located near
 10 interstate type highways and similar high-traffic areas, require special sizing consideration due to expected above average
 11 sewage volume. Minimum estimated flows for these facilities shall be 3.0 times the volumes determined from the Table I
 12 figures.

13 3. For residences, the volume of wastewater shall be calculated as 50 percent blackwater and 50 percent graywater.

14 4. Where the number of bedrooms indicated on the floor plan and the corresponding building area of a dwelling unit in
 15 Table I do not coincide, the criteria which will result in the greatest estimated sewage flow shall apply.

16 5. Convenience store estimated sewage flows shall be determined by adding flows for food outlets and service stations as
 17 appropriate to the products and services offered.

18 6. Estimated flows for residential systems assumes a maximum occupancy of two persons per bedroom. Where residential
 19 care facilities will house more than two persons in any bedroom, estimated flows shall be increased by 50 gallons per each
 20 additional occupant.

21 (2) through (6) No change
 22

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

10-05 ISSUE FOR TECHNICAL REVIEW AND ADVISORY PANEL CONSIDERATION

Printed 11/1/2012 7:48:30 AM

Next Trap Meeting: 11/16/2012

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

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

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

Issue Originated By: Dale Holcomb, DOH

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

Proposed Rule Change: 10-05--64E-6.017-Part_II_changes_for_SB550.doc (See Attached)

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

Possible Financial Impacts: Savings include septic tanks in areas where aerobic treatment would have been required in prior rule. New costs include annual screening (field test kit) samples to verify nutrient reduction.

Date New: 6/22/2010

Initially Reviewed by Trap: 7/15/2010

Tabled by Trap: 12/2/2010

Trap Review Finished: 7/15/2010

Variance Committee Reviewed: 9/2/2010

Trap Review Variance Comments: 12/2/2010

Trap Final Decision: 10/11/2011

Final Outcome: approve

Comments: 7/2/10 Language was noticed in FAW to provide standards for repairs required by 2010-205 LOF effective 7-1-10.
7/15/10 Passed to Variance committee with minor changes.
7/20/10 Made TRAP changes.
8/26/10 Made changes based on conversation with Bobbie and Bill re phosphorous media and bed liners and collars.
9/2/10 Variance comments: SHO-All system repairs now depend on MHWL - so everything needs an elevation.; CHD-Should eliminate the need for some regularly approved variances.; STI-no problem; HBI-Needed; DEP-ok; REI-no comment; ENG-ok;

9/23/10 On agenda but not discussed at TRAP. Did not complete agenda.

11/22/10 Corrected rule reference: 64E-6.014(4)(c) to 64E-6.014(5)(c)., incorporated comments from Public Workshop.

12/2/2010 TRAP tabled to work numerous issues: SHWT vs. MHW, loading at 0.9 versus 0.8, 42 " tanks for filters versus shallower tanks for filters, wrapping sand liner beneath nutrient liner, air-injected versus ATU, limiting injection well use, filter designs, commercial injection wells.

9/16/2011 - incorporated changes to address issues from 12/2/2010 meeting..

10/11/2011 TRAP passed to rule with "is lower than one inch per thirty minutes" change.

Ready for Rule



In Rule



Rule Date:

4/1/2013

1 Yellow highlights are areas of change from last trap approval

2 64E-6.017 Definitions.

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

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

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

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

(a) Biochemical Oxygen Demand (CBOD₅) 10 mg/L +

(b) Suspended Solids 10 mg/L +

(c) Total Nitrogen, expressed as N 10 mg/L +

(d) Total Phosphorus, expressed as P 1 mg/L +

10
11 (5) through (7) renumbered as (6) through (8) No change

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

13 Implemented ~~154.01, 381.001(2), 381.0011(4), 381.006(7), 381.0061, 381.0065, 381.00655, 386.041~~ FS., Ch. 99-
14 ~~395, LOF. History–New 7-15-86, Amended 3-17-92, 1-3-95, Formerly 10D-6.062, Amended 3-3-98, 3-22-00, ____.~~

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

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

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

25 and soil interpretation records.

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

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

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

<u>(a) Nutrient-reducing material-lined drainfield receiving effluent from a performance-based treatment system.</u>	<u>1.7 gallons per day</u> <u>per square foot</u>
<u>(b) Sand-lined drainfield receiving effluent from a performance-based treatment system</u>	<u>1.3 gallons per day</u> <u>per square foot</u>
<u>(c) Sand-lined drainfield receiving effluent from an aerobic treatment unit</u>	<u>1.1 gallons per day</u> <u>per square foot</u>
<u>(d) Sand-lined drainfield receiving effluent from a septic tank</u>	<u>0.9 gallons per day</u> <u>per square foot</u>
<u>(e) Mineral aggregate filter receiving effluent from an aerobic treatment unit</u>	<u>5.5 gallons per day</u> <u>per square foot</u>
<u>(f) Mineral aggregate filter receiving effluent from a performance-based treatment unit designed to meet a performance standard of 10 mg/L for CBOD5 and TSS before the effluent passes through the filter.</u>	<u>8 gallons per day</u> <u>per square foot</u>

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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(7) The maintenance entity of a performance-based treatment system shall cause the system to be tested for nitrogen and phosphorous at least once every year. If a screening test is used, the screening test shall be one of the tests approved by the Monroe County Health Department. If the county health department is requested to conduct the screening test, an inspection fee of \$75 shall be paid to the department prior to requesting the test. Upon the results of a screening test that shows a violation for phosphorous or nitrogen, the owner shall have the system sampled and tested by a laboratory certified by the department.

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

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

(8) (4) In conjunction with the systems specified in this section subsections 64E-6.018(1) and (2), F.A.C., an applicant may use the alternative systems described in subsection 64E-6.009(1), (3), (4), (5) or (6), or (7), F.A.C. An alternative system shall meet the general intent of Part I and Part II of this rule.

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

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

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

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

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

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

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

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

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

284 (3) Interim systems standards shall be:

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

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

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

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

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

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

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

302 5. The bottom of the drainfield shall be at least 30 inches above the wet season water table. At least 12 inches
303 of the sand layer shall be at least 18 inches above the wet season water table.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

394 (I) An injection well as defined in subsection 64E 6:017(3), F.A.C., shall be constructed, in part, utilizing a
395 casing of polyvinyl chloride, commonly referred to as PVC. The minimum PVC casing weight and strength
396 classification shall be schedule 40 and the minimum outside diameter of the casing shall be 4 inches. Other casing
397 materials having strength and corrosion resistance properties equal to or greater than PVC schedule 40 pipe shall
398 also be approved.

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

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

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

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

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

410 (b) ~~A performance based treatment system designed and certified by a professional engineer, licensed in the~~
411 ~~state, as producing an effluent meeting at a minimum the treatment standards for a system designed in accordance~~
412 ~~with paragraph 64E-6.0181(3)(a), F.A.C., and permitted, constructed and monitored in accordance with Part IV.~~
413 ~~Rulemaking Authority 381.0011(4), (13), 381.0065(3)(a), (4)(l) FS., Ch. 99-395, L.O.F. Law Implemented 381.0065,~~
414 ~~381.00655 FS., Chs. 99-395, 2001-337, L.O.F. History-New 3-3-98, Amended 3-22-00, 4-21-02, 5-24-04, 11-26-06,~~

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10-09 ISSUE FOR TECHNICAL REVIEW AND ADVISORY PANEL CONSIDERATION

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Next Trap Meeting: 11/16/2012

Subject: LTAR and Alternative Drainfield Geometry for PBTS

Rule Sections: 64E-6.028

Issue: No one has ever used these provisions of the PBTS rule related to alternative drainfield technology,

Issue Originated By: Eb Roeder, DOH

Justification: The proposed changes delete the long term acceptance rate provision of the rule.

Proposed Rule Change: 10-09--64E-6.028_LTAR_adjustments.doc (See Attached)

Summary: deletes an unused provision of the rule

Possible Financial Impacts: none

Date New: 8/31/2009

Initially Reviewed by Trap: 7/15/2010

Tabled by Trap:

Trap Review Finished: 12/2/2010

Variance Committee Reviewed: 7/7/2011

Trap Review Variance Comments: 10/11/2011

Trap Final Decision: 10/11/2011

Final Outcome: approve

Comments: 7/15/10 TRAP passed to variance. Discussion revealed that no applicant has ever used this provision of the rule in over 10 years. Rather than go to Variance committee with proposal, we are going to delete the provision and send back to the TRAP

9/23/10 On agenda but not discussed at TRAP. Did not complete agenda.

12/2/2010 TRAP approved for variance committee

7/7/2011 Variance committee reviewed and commented: ENG-OK; CHD-No comment;

10/11/2011 TRAP approved for Rule.

Ready for Rule

In Rule

Rule Date: 4/1/2013

64E-6.028 Location and Installation.

Performance-based treatment systems shall be installed in compliance with the following.

(1) through (2) No change

(3) Drainfield designs: The following alterations to drainfield requirements shall be allowed for pressure dosed systems only.

(a) Long Term Acceptance Rate, also known as LTAR — LTAR's for sidewall infiltrative surfaces shall not exceed 1.25 times the bottom infiltrative surface LTAR for the same soil classification. Where the soil classification varies within the drainfield soil profile, the sidewall LTAR shall be adjusted accordingly. Sidewall infiltrative surfaces may be utilized only when a system is dosed a maximum of two times per day and the trench width is no greater than 18 inches.

(b) For septic tank effluent, maximum LTAR values shall not exceed the equivalent to the baseline standard for the soil classification in question. (see Table IX)

TABLE IX

Bottom/Sidewall Infiltrative Surface Maximum Equivalent LTAR's

Side LTAR: Bottom LTAR ratio =	1.25	1.25	1.25	1.25
Current trench bottom LTAR (gal/sq. ft/day) =	1.20	0.90	0.65	0.35
Trench width (inches) =	36.00	36.00	36.00	36.00
Effective sidewall height (inches) =	8.00	8.00	8.00	8.00
Total sidewall height (inches) =	12.00	12.00	12.00	12.00
Revised bottom LTAR (gal/sq. ft/day) =	0.77	0.58	0.42	0.23
New sidewall LTAR (gal/sq. ft/day) =	0.96	0.72	0.52	0.28

Footnotes to Table IX.

Footnote 1. Designs that utilize onsite open trench horizontal and vertical hydraulic conductivity testing to adjust the bottom and sidewall LTAR's shall be acceptable. The LTAR can be modified; however, the side LTAR: bottom LTAR ratio cannot exceed 1.25 for like soils.

Footnote 2. Designs that utilize established modeling techniques to determine the maximum effective capacity (design daily flow) of a designed drainfield system shall be acceptable.

Footnote 3. The horizontal and vertical projections of inclined surfaces cannot be considered for both sidewall and bottom credit in the same cross section. The designer must select one or the other.

Footnote 4. The current trench bottom LTAR's are from Part I, Table III, and are referred to as maximum sewage loading rates in Table III.

Footnote 5. Absorption beds shall be allowed providing the LTAR's are adjusted accordingly.

(c) through (e) No change

(4) through (5) numbered as (3) through (4) No change

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.