

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: Thursday, October 22, 2015
TIME: 10:00 a.m. Eastern Time
PLACE: UF-IFAS Extension Office Auditorium
Orange County
6021 South Conway Road
Orlando, Florida 32812-3604

THIS MEETING IS OPEN TO THE PUBLIC.

Agenda

1. Introductions
2. Review minutes of September 14, 2015 meeting
3. Old Business
4. New Business
 - Election of Chair and Vice-Chair
 - 15-02 Nitrogen-Reducing Media Lined Drainfields
 - 15-03 Collection and Hauling Logs for Septage Disposal Services Trucks
 - 15-04 Non-Employment of Septic Tank Contractors with Suspended/Revoked Licenses
 - 15-05 Disciplinary Standards for Voluntary Inspections
5. Other items of interest to the Technical Review and Advisory Panel
6. Public Comment

Scott Johnson <i>PROFESSIONAL ENGINEER</i>	Pam Tucker <i>REAL ESTATE INDUSTRY</i>	Martin Guffey <i>SEPTIC TANK INDUSTRY</i>	Robert Baker <i>SEPTIC TANK MANUFACTURER</i>
Glenn Bryant <i>COUNTY HEALTH DEPARTMENT</i>	Russ Melling <i>CONSUMER</i>	Scott Franz <i>SOIL SCIENTIST</i>	Sonia Cruz <i>ENVIRONMENTAL HEALTH</i>
Victor Godlewski <i>LOCAL GOVERNMENT</i>	Ken Odom, Chair <i>HOME BUILDING INDUSTRY</i>	Roy Pence, Vice Chair <i>HOME BUILDING INDUSTRY</i>	

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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 MINUTES

DATE: Monday, September 14, 2015
PLACE: Teleconference

Members present were:

Scott Johnson, *Florida Engineering Society*
Glenn Bryant, *County Health Department*
Russ Melling, *Consumer Representative*
Roy Pence, *Home Building Industry, Vice Chair*
Ken Odom, *Home Building Industry, Chair*
Pamela Tucker, *Real Estate Professional*
Sonia Cruz, *Environmental Health*

Alternate members present:

Ron Davenport, *Septic Tank Manufacturer*
Oren Reedy, *Soil Scientist*

Department of Health staff present:

Ed Barranco, *Environmental Administrator*
Dale Holcomb, *Environmental Administrator*
Elke Ursin, *Environmental Health Program Consultant*
Ed Williams, *Environmental Health Program Consultant*
Eberhard Roeder, *Engineer*

Absent members and alternates:

Russ Melling, *Consumer Representative*
Clay Tappan, *Florida Engineering Society*
Johanna Whelan, *County Health Department*
Vic Godlewski, *Local Government*
Mark Cotton, *Home Building Industry*
Edward Cordova, *Local Government*
Wayne Crotty, *Septic Tank Industry*
Martin Guffey, *Septic Tank Industry*
Tony Macaluso, *Real Estate Professional*
Mary Howard, *Environmental Health*
Scott Franz, *Soil Scientist*
Robert Baker, *Septic Tank Manufacturer*

Others present:

None

Scott Johnson <i>PROFESSIONAL ENGINEER</i>	Pam Tucker <i>REAL ESTATE INDUSTRY</i>	Martin Guffey <i>SEPTIC TANK INDUSTRY</i>	Robert Baker <i>SEPTIC TANK MANUFACTURER</i>
Glenn Bryant <i>COUNTY HEALTH DEPARTMENT</i>	Russ Melling <i>CONSUMER</i>	Scott Franz <i>SOIL SCIENTIST</i>	Sonia Cruz <i>ENVIRONMENTAL HEALTH</i>
Victor Godlewski <i>LOCAL GOVERNMENT</i>	Ken Odom, Chair <i>HOME BUILDING INDUSTRY</i>	Roy Pence, Vice Chair <i>HOME BUILDING INDUSTRY</i>	

1. INTRODUCTIONS

Chairman Odom called the meeting to order at 4:00 p.m. The TRAP members and alternates introduced themselves. Nine out of eleven groups were present, representing a quorum.

2. REVIEW MINUTES OF LAST MEETING

The TRAP reviewed the minutes of the November 6, 2014 meeting.

MOTION by Russ Melling and seconded by Pam Tucker, for the TRAP to approve the minutes from the November 6, 2014 meeting. All were in favor, none opposed, and the motion passed unanimously.

The TRAP reviewed the minutes of the August 20, 2015 meeting.

MOTION by Scott Johnson and seconded by Glenn Bryant, for the TRAP to approve the minutes from the August 20, 2015 meeting. All were in favor, none opposed, and the motion passed unanimously.

3. RULE ISSUES

15-01 Rule Reduction: Repeal of 64E-6.016 – USDA Soil Textural Classification

At the previous meeting the TRAP approved the issue to go to the Variance Review and Advisory Committee for comment. The comments from the Variance Committee were presented and reviewed by the TRAP.

MOTION by Scott Johnson and seconded by Oren Reedy, to repeal 64E-6.016. All were in favor, none opposed, and the motion passed unanimously.

4. OTHER ITEMS OF INTEREST TO THE TECHNICAL REVIEW AND ADVISORY PANEL

None

5. PUBLIC COMMENT

No public comment was offered.

MOTION by Roy Pence and seconded by Pam Tucker, to adjourn. All were in favor, none opposed, and the motion passed unanimously.

The meeting adjourned at approximately 3:45 p.m.

15-02 ISSUE FOR TECHNICAL REVIEW AND ADVISORY PANEL CONSIDERATION

Next Trap Meeting: 10/22/2015

Printed 10/7/2015 5:37:34 PM

Subject: Nitrogen-Reducing Media Lined Drainfields

Rule Sections: 64E-6.009

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

Issue Originated By: Tom Frick, DEP

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

Proposed Rule Change: 15-02--64E-6.009 Nitrogen-reducing media layer.doc (See Attached)

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

Possible Financial Impacts: The installation of the media will be an expense in addition to the conventional system. If embraced by the BMAP or mitigation requirements, this is a lower cost alternative to other performance-based nitrogen-reduction systems and requires no operating permit or maintenance contract.

Date New: 8/27/2015

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-6.009 Alternative Systems.**

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

8 (1) through (6) No change

9 (7) Nitrogen-reducing media layers –Nitrogen-reducing media layers may be placed beneath the drainfield provided the
10 resulting system meets all requirements in this chapter except as noted below.

11 (a) The system shall be designed by an engineer licensed by the State of Florida;

12 (b) The natural and existing soil profile throughout the area of the drainfield shall indicate slightly-limited soils extending
13 from the ground surface to no less than 54 inches below the bottom of the drainfield.

14 (c) The nitrogen-reducing media layer shall be no less than 12 inches thick;

15 (d) The media layer shall be enclosed beneath and on all sides by an impermeable liner being at least 30 mil polyethylene
16 or having a maximum hydraulic conductivity less than or equal to 1×10^{-7} centimeters per second;

17 (e) No portion of the liner or nitrogen-reducing media shall be within 18 inches of the bottom of the drainfield

18 (f) The lowest point of the liner shall be no less than 6 inches above the water table at the wettest season of the year;

19 (g) The nitrogen-reducing media layer shall extend beneath the entire drainfield absorption surface and extend at least two
20 feet beyond the perimeter of any portion of the drainfield absorption surface and any other effluent release point. The
21 drainfield shall be sufficiently separated from the treatment and pump tanks to permit the liner and media to meet this
22 requirement.

23 (h) The nutrient-reducing media layer shall have been demonstrated in Florida-based studies to be:

24 1. effective at providing a substrate for denitrifying bacteria; and

25 2. sufficiently durable to maintain their shape and volume under the anticipated conditions of saturation and burial.

26 (i) The nutrient-reducing media layer shall comply with the provisions of 64E-6.0151, FAC.

27 (j) The design engineer shall observe the complete installation of the liner and media and shall provide a written
28 certification to the department that the entire installation meets the requirements of the permit and this chapter.

29 (k) The design engineer may specify additional layers and liners to enhance treatment and effluent routing provided they
30 do not:

31 1. reduce to less than 24 inches the vertical effluent travel path through unsaturated soil from the bottom of the drainfield
32 to the seasonal high water table;

33 2. reduce to less than 18 inches the vertical effluent travel path through unsaturated soil from the bottom of the drainfield
34 to the nitrogen-reducing media layer;

35 3. provide a route for effluent to bypass the nitrogen-reducing media;

36 4. reduce the average effluent contact time with the nitrogen-reducing media; or

37 5. cause a violation of 64E-6.0151, FAC.

38 (8) through (10) Renumber as (9) through (11) No change

39 *Rulemaking Authority 381.0065(3)(a) FS. Law Implemented 381.0065 FS. History--New 12-22-82, Amended 2-5-85, Formerly*
40 *10D-6.49, Amended 3-17-92, 1-3-95, Formerly 10D-6.049, Amended 11-19-97, 2-3-98, 3-22-00, 4-21-02, 6-18-03, 11-26-06,*
41 *6-25-09,_____.*

Subject: Collection and Hauling Logs for Septage Disposal Services Trucks

Rule Sections: 64E-6.010(7)(e)

Issue:

There are multiple items at issue. First, there is no requirement that logging information be kept in septage disposal services (SDS or pump-out) trucks, which are regulated by the Department. Logging records or log books are standard for all regulated transport vehicles, and the drivers of these vehicles are expected to enter information into their log books in a chronological and contemporaneous manner. Further, they are subject to review by law enforcement and regulatory agencies upon request. Log books that travel with the SDS vehicle are closest in time and space to the actual work performed and therefore are the most accurate records of the service event, and they are the first and best step towards assuring compliance with sludge treatment and disposal requirements.

Second, there is currently no requirement that the logging entry information be made concurrent or contemporaneous with the provision of services. Part of the reason for maintaining logging records, is so that the Department can verify through company records that services were provided at a particular time and place, with an estimate of the amount of sludge that was transported. This provides a form of accountability and assurance that all sludge will ultimately be treated and disposed of according to Rule, with records that follow the material from the septic tank to the treatment and then to the disposal site. If a contractor fails to record this information, the waste material may never enter the control stream, and instead likely enter into the environment without treatment.

Third, when the Department receives a complaint from a customer, the Department is entitled to request and receive a copy of the company's logging records. The Department should then expect to see an entry in the contractor's log showing that a visit was in fact made to that address. When an entry is not found for that address, then the Department has a legitimate concern with regards to the ultimate destination of the contents of that septic tank. If log entries are not required to be entered in a chronological or contemporaneous manner, a contractor who becomes aware of the customer complaint, will have the opportunity to enter or update the information onto his log out of any regular chronological

order, or create a new log to include the added information, and in this way avoid accountability for an otherwise wrongful act.

Fourth, there has developed a recent practice, whereby contractors are refusing to provide receipts to homeowners, and accept only cash for their services. The potential for mischief is immediately apparent. In such a case, if a contractor is looking to evade the declaration of income or avoid regulatory oversight, it is more expedient to avoid any recordkeeping, and this would include providing receipts. Records of a receipt for services in a customer's hands is pivotal to assuring good customer service and the Department is well within its rights to demand that customers be provided with a receipt when services have been provided, even when no money has exchanged hands. A receipt is the best evidence of a contract with all of its implied warranties, which every property owner has a right to.

Issue Originated By:

Roland Reis, DOH Legal

Purpose and Effect

The proposed changes eliminate potential gaps in the accounting stream for sludge treatment and disposal. These proposed changes further provide clarification as to the manner in which logging records are to be kept, and the expectations of the Department from the septic tank contractor community with regards to treatment of clients by providing receipts for payments received and services provided.

Proposed Rule Change:

15-03--64E-6.010 Hauling Logs.doc

(See Attached)

Summary:

The proposed changes tighten the process for keeping track of septic sludge. They assure greater accountability on behalf of the septic tank contractors. They provide greater protections for homeowners and customers of the septic tank industry. They also make it more difficult for unscrupulous contractors to avoid accountability and compliance with the Florida Administrative Code.

Possible Financial Impacts:

Possible fiscal impacts are limited to the minimal amount of time required to keep up with contemporaneous logging and bookkeeping.

Date New:

8/19/2015

Initially Reviewed by Trap:

Tabled by Trap:

Trap Review Finished:

Variance Committee Reviewed:

Trap Review Variance Comments:

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

2 (1) through (6) No change

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

8 (e) All septage and food establishment sludge haulers regulated by Chapter 64E-6, F.A.C., are to maintain and carry with
9 them at all times within each septage disposal services (SDS or pump-out) truck licensed by the Department a
10 collection and hauling log or log book, at the treatment site or at the main business location

11 1. The log shall which provides the information listed below:- Records shall be retained for five (5) years.

12 a. 1. Date of septage or waste collection;

13 b. 2. Address of collection;

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

15 d. 4. Estimated volume, in gallons, of septage or waste transported;

16 5. Receipts for lime or other materials used for treatment;

17 e. 6. Location of the approved treatment facility;

18 f. 7. Date and time of discharge to the treatment facility; and

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

20 2. Log entries shall be recorded chronologically and contemporaneously with each waste collection or
21 discharge service. A separate collection and hauling log or ledger shall be maintained at the treatment site or main
22 business location and updated on a daily basis and entered in chronological order.

23 3. Receipts shall be provided to all home, business, or property owners for all septic tank contractor services
24 provided. Receipts shall include the company name, date, amount and form of payment, a list of the services
25 provided, and the employee name and signature.

26 4. All log records and receipts shall be retained for five (5) years.

27 (f) to (v) No change.

28 (8) to (10) No Change.

29 *Rulemaking Authority 381.0065(3)(a), 489.553(3) FS. Law Implemented 381.0065, 386.041, 373.4595 FS. History--New 12-22-*
30 *82, Amended 2-5-85, Formerly 10D-6.52, Amended 3-17-92, 1-3-95, 5-14-96, Formerly 10D-6.052, Amended 3-22-00, 5-24-*
31 *04, 11-26-06, 6-25-09, 4-28-10, _____.*

15-04 ISSUE FOR TECHNICAL REVIEW AND ADVISORY PANEL CONSIDERATION

Next Trap Meeting: 10/22/2015

Printed 10/7/2015 5:37:38 PM

Subject: Non-Employment of Septic Tank Contractors with Suspended/Revoked Licenses

Rule Sections: 64E-6.022(1)(t) and (u) and 64E-6.022(5), FAC

Issue: Contractors with suspended or revoked licenses are currently able to get re-employed in the industry by working under the license or registration of other septic tank contractors during their periods of suspension or revocation, and are thereby essentially and largely allowed to carry on working in the industry with no or little financial penalty.

Issue Originated By: Roland Reis, DOH Legal

Purpose and Effect The proposed changes prevent contractors with suspended or revoked registrations from working under the registration of other septic tank contractors, or from working in the septic tank industry under the license or registration of a licensed plumber or general contractor. It also provides for penalties for septic tank contractors who employ or contract with a septic tank contractor who has had their registration suspended or revoked.

Proposed Rule Change: 15-04--64E-6.022 working while revoked.doc (See Attached)

Summary: This proposed addition/change prevents contractors with suspended or revoked registrations from being employed in the industry, and concurrently prevents registered contractors from employing other contractors who have had their registrations suspended or revoked.

Possible Financial Impacts: None

Date New: 10/2/2015

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-6.022 Standards of Practice and Disciplinary Guidelines.**

2 (1) It shall be the responsibility of persons registered under this rule to see that work for which they have contracted and
3 which has been performed by them or under their supervision is carried out in conformance with the requirements of all
4 applicable Florida Statutes and Chapter 64E-6, F.A.C. The following actions by a person included under this rule shall be
5 deemed unethical and subject to penalties as set forth in this section. The penalties listed shall be used as guidelines in
6 disciplinary cases, absent aggravating or mitigating circumstances and subject to other provisions of this section.

7 (a) through (s) No change

8 (t) Hiring, employing, contracting or subcontracting with a septic tank contractor or septic tank company whose
9 registration or business authorization has been suspended or revoked. First violation, letter or warning or fine up to
10 \$500; repeat violation, 90 day suspension or revocation.

11 (u) Providing septic tank contracting services with a suspended or revoked registration or business
12 authorization. First violation, court injunction and fine up to \$5,000 (with continued revocation); repeat violations,
13 injunctions and fines up to \$10,000 (with continued revocation).

14 (v) The absence of any violation from this section shall be viewed as an oversight, and shall not be construed as an
15 indication that no penalty is to be assessed.

16 (2) Circumstances which shall be considered for the purposes of mitigation or aggravation of penalty shall include the
17 following:

18 (a) Monetary or other damage to the registrant's customer, in any way associated with the violation, which damage the
19 registrant has not relieved, as of the time the penalty is to be assessed.

20 (b) Actual job-site violations of this rule or conditions exhibiting gross negligence, incompetence or misconduct by the
21 contractor, which have not been corrected as of the time the penalty is being assessed.

22 (c) The severity of the offense.

23 (d) The danger to the public.

24 (e) The number of repetitions of the offense.

25 (f) The number of complaints filed against the contractor.

26 (g) The length of time the contractor has practiced and registration category.

27 (h) The actual damage, physical or otherwise, to the customer.

28 (i) The effect of the penalty upon the contractor's livelihood.

29 (j) Any efforts at rehabilitation.

30 (k) Any other mitigating or aggravating circumstances.

31 (3) As used in this rule, a repeat violation is any violation on which disciplinary action is being taken where the same
32 licensee had previously had disciplinary action taken against him or received a letter of warning in a prior case. This definition
33 applies regardless of the chronological relationship of the violations and regardless of whether the violations are of the same or
34 different subsections of this rule. The penalty given in the above list for repeat violations is intended to apply only to situations
35 where the repeat violation is of a different subsection of this rule than the first violation. Where the repeat violation is the very
36 same type of violation as the first violation, the penalty set out above will generally be increased over what is shown for repeat
37 violations.

38 (4) Where several of the above violations shall occur in one or several cases being considered together, the penalties shall
39 normally be cumulative and consecutive.

40 (5) Any person whose septic tank contractor registration or business authorization has been suspended or
41 revoked is prohibited from providing septic tank contracting services as described under Chapter 64E-6, F.A.C., or
42 from working or contracting with a registered septic tank contractor, authorized septic tank business, licensed
43 plumber, or licensed general contractor to provide septic tank contracting services as described under Chapter 64E-
44 6, F.A.C.

45 (6) The provisions of this section shall not be construed so as to prohibit civil action or criminal prosecution as provided in
46 Part III of Chapter 489, F.S., and Section 381.0065, F.S., or for a violation of any provision of Part I of Chapter 386, F.S. No
47 provision of this section shall be construed as to limit the ability of the department to enter into binding stipulation with the
48 accused party per subsection 120.57(4), F.S.

49 *Rulemaking Authority 381.0011(4), (13), 381.0065(3)(a), 489.553(2), (3), 489.556, 489.557 FS. Law Implemented Part III 489*
50 *FS. History—New 3-17-92, Amended 1-3-95, 2-13-97, Formerly 10D-6.0751, Amended 2-3-98, 5-24-04.*

Subject: Disciplinary Standards for Voluntary Inspections

Rule Sections: 64E-6.022(1)(p), FAC

Issue:

The current version of this Rule addresses only installations, modifications, or repairs that do not meet or conform to statute or code requirements. However, contractors are not hired only in response to new construction or to problems created by failed systems, which then require installation, modification, or repair. In the case of Voluntary Inspections and Assessments of Existing Systems conducted pursuant to 64E-001(5), inspections and assessments are frequently conducted for purposes of evaluating the status of a working system at a particular point in time, in anticipation of future maintenance, repair, or replacement needs. The results are then reduced to a report to then be used by potential homebuyers to secure mortgage loans from various lenders, including HUD and the VA.

Inasmuch as the current disciplinary standard only addresses "installation, modification, or repair", other important contractor responsibilities are overlooked, specifically involving inspections, evaluations, and assessments, particularly with respect to 64E-001(5).

Issue Originated By:

Roland Reis, DOH Legal

Purpose and Effect

The proposed changes make contractors accountable for comprehensive inspections that potential home buyers rely on for securing mortgage loans and budgeting for future capital expenses. It has been observed that contractors have responded to such requests by simply pumping out septic tanks, without following the comprehensive procedures outline in 64E-001(5), to the detriment of new homeowners then saddled with expensive repairs that were unforeseen at the time of purchase. The affected home-buying public can feel more secure that such inspections and reports correctly reflect the true status of a system if contractors are subject to discipline for conducting inspections that that do not meet current standards

Proposed Rule Change:

15-05--64E-6.022 penalty for voluntary inspection or assessment.doc

(See Attached)

Summary:

The proposed changes are needed to hold contractors accountable for voluntary inspections, providing greater assurances for home buyers and lenders that voluntary

inspection reports are thorough and accurate.

Possible Financial Impacts:

None

Date New:

9/18/2015

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

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In Rule

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Rule Date:

64E-6.022 Standards of Practice and Disciplinary Guidelines.

(1) It shall be the responsibility of persons registered under this rule to see that work for which they have contracted and which has been performed by them or under their supervision is carried out in conformance with the requirements of all applicable Florida Statutes and Chapter 64E-6, F.A.C. The following actions by a person included under this rule shall be deemed unethical and subject to penalties as set forth in this section. The penalties listed shall be used as guidelines in disciplinary cases, absent aggravating or mitigating circumstances and subject to other provisions of this section.

(a) through (o) No change

(p) Installation, modification, inspection, evaluation, assessment, or repair of an onsite sewage treatment and disposal system in violation of the standards of Section 381.0065 or 381.00655, F.S., or Chapter 64E-6, F.A.C. First violation, letter of warning or fine up to \$500 per specific standard violated; repeat violation, 90 day suspension or revocation.

(q) through (t) No change

(2) through (5) No change

Rulemaking Authority 381.0011(4), (13), 381.0065(3)(a), 489.553(2), (3), 489.556, 489.557 FS. Law Implemented Part III 489 FS. History—New 3-17-92, Amended 1-3-95, 2-13-97, Formerly 10D-6.0751, Amended 2-3-98, 5-24-04,_____.

Suggested References:

This is a collection of references to provide background on the Nitrogen-Reduction issue we will be discussing at the meeting of the Technical Review and Advisory Panel (TRAP) on October 22 in Orlando.

We recommended the following links to the final technology report and the appendices to the report:

[Task B final technology report pdf](#)

[Appendices for Task B final technology report pdf](#)

The system with the lined drainfield is BHS-7, and searching through the report for the text “BHS-7” specifically will bring you to the information about that system. There are several places where the system is discussed, with the process flow diagram on page 75 of the report pdf, a description of the water quality results on pages 97-99, and the life cycle cost analysis results are on page 156. There is also a very comprehensive write-up on the system in the Appendices document on pages 340-376.

For more details, there is the [installation report](#); the sample events: [1](#), [2](#), [3](#), [4](#), [5](#), [6](#), [7](#), [8](#); and the [operation/maintenance/repair report](#).