



Technical Guidance Committee

Meeting Minutes

Thursday June 8, 2017

Conference Room C
Department of Environmental Quality
1410 North Hilton
Boise, ID

TGC ATTENDEES:

James Craft – Onsite Wastewater Coordinator, DEQ, (TGC Chairman)
Mike Reno – REHS, Environmental Health Supervisor, CDHD
Jason Peppin – REHS, Senior Environmental Health Specialist, PHD
Kellye Eager – REHS, Director of Environmental Health, (EIPH)
Dale Peck – PE, Environmental & Health Protection Division Administrator, PHD

GUESTS:

Mark Fricke – Presby Environmental Inc.
Fred Vengrouski - Presby Plastics, Inc.
Larry Waters – PE, Wastewater Program Engineering Manager, DEQ
Mike Piechowski – P.E. Technical Engineer, DEQ
Whitney Rowley – Administrative Assistant, DEQ
Mark Cecchini-Beaver – Deputy Attorney General, DEQ
PaRee Godsill – Everlasting Extended Treatment,
Norm Semanko – Moffat Thomas Attorney representing Presby Environmental, Inc.
Tim Wright – Southwest District Health
Lisa Bahr – Southwest District Health
Jay Holman – Infiltrator Water Technologies. (via telephone)
Alan Worst – R.C. Worst & Company, Inc. (via telephone)
Lee Rashkin – Presby Environmental, Inc. (via telephone)
Dave Lentz – Infiltrator Water Technologies (via telephone)
Ashley Garrison – Presby Environmental, Inc. (via telephone)

CALL TO ORDER/ROLL CALL:

Meeting is called to order at 10:00.

Committee members and guests introduced themselves. James Craft introduced himself as the TGC Chairman.



OPEN PUBLIC COMMENT PERIOD:

10:05 AM James Craft opened the meeting for public comments. No initial public comments were given from those attending the meeting.

James Craft stated he had received some public comments via email that he would read into the meeting minutes. First Public Comment via email was from Fred G. with Presby Environmental regarding the May 3rd meeting. No questions or responses to the Presby Environmental email dated May 3rd. See Appendix H Public Comments for a copy of the Presby Environmental email.

James Craft read the next public comment via email into minutes which was a letter from Presby Environmental Inc. sent to Larry Waters 5/2/17. No questions or comments regarding the Presby Environmental letter. See Appendix H Public Comments for a copy of the Presby Environmental letter.

James Craft read the next public comment via email into the minutes which was a letter from Williams Engineering, Inc. 6/7/17 regarding AES systems. See Appendix H Public Comments for a copy of the Williams Engineering, Inc letter.

Dale Peck asked James Craft, "To clarify, are these letters being read into the minutes for discussion today? James Craft replied, "The letters read into the minutes are not for discussion today and will be on the agenda for next TGC meeting. Fred Vengrouski asked, "Will the meeting be an open meeting or a closed door meeting?" James Craft told Fred Vengrouski that the letters read into the meeting today will be discussed at the next TGC meeting and members of the TGC and members of the audience are welcome to participate.

MEETING MINUTES

10:35 AM **May 3, 2017 Draft TGC Meeting Minutes: Review, Amend, or Approve**

Norm Semanko requested clarification on Presby System Manual @10:10AM. He requested different wording in minutes to reflect what he said. James Craft made the requested changes in the meeting minutes to reflect Norm Semanko's statements.

Norm Semanko also requested clarification on the minutes asking, "Does 'holding a position' mean on a committee or on an issue? Please change....which they or their business have a pecuniary interest in, without first disclosing the conflict of interest as required by law." Norm Semanko requested the minutes to accurately state what he said. Dale Peck responded, "My memory is more of TGC had conflicts of interest that were not disclosed. I don't remember industry being stated in the comment." Norm



Semanko said, "I would agree with Dale Peck to that." James Craft corrected the TGC May 3rd minutes to reflect Norm Semanko's statement.

Norm Semanko asked the committee to please note in the TGC May 3rd Minutes at 10:37 AM that the comment letter received by DEQ from Presby dated May 2, 2017 be included in the meeting minutes as an appendix item. Dale Peck asked Norm Semanko, "Note that the letter was just provided?" Norm Semanko said, "Yes".

Motion: Dale Peck moved to conclude minutes reviewed as amended.

Second: Mike Reno

Prior to asking the TGC for a vote, a follow up question was asked by Fred Vengrouski.

Fred Vengrouski stated, "I reviewed minutes of last year; the AES review was five pages of notes. Do you still have the same person taking minutes?" James Craft stated that he took the meeting minutes last time at the TGC May 3rd Meeting. Fred Vengrouski said, "I am concerned with the detail in the minutes and the length of minutes. It seems unfair how ATL is being treated compared to others and how the committee reviews other products [referring to Infiltrator's ATL System]. A request was for 70ft per bedroom, there was a lot of discussion on this topic, and was not noted in detail in the minutes. I would like to see that discussion entered in the minutes. It is important to Mr. Worst, Infiltrator, and Bio-Mircobics that we provided field data. Is Infiltrator required to submit field data also? Do they have it available? We would like to recommend it be added to the minutes. Thirty (30) systems for a 3 year period of time is what we suggest be submitted.

Dale Peck said, "I believe items are identified in the Presby comment letter dated May 2nd. Are we considering ATL now? There was not enough time at that point for DEQ to do a review during the May 3rd meeting, due to the late submission of the document. Length and loading rate questions will be discussed at a later meeting after DEQ has done an official review." Mike Reno also commented, "The Infiltrator ATL System was not being reviewed as of yet, but will be." James Craft stated, "TGC gave a cursory review on the Infiltrator ATL System product. The product will be discussed at another meeting after reviews have been done by DEQ and TGC. DEQ has completed its initial review of the Infiltrator ATL System product and will provide comments back to Infiltrator in a letter. The DEQ comment letter is not public record for this meeting."

Fred Vengrouski discussed his personal career background and history in his field. Fred Vengrouski said, "Please keep in mind that Infiltrator's product was never intended for approval." Mike Reno stated, "We have a responsibility to review every



product that comes to us.” Fred Vengrouski concludes his comments saying, “We believe in fair competition and believe that the committee should be fair to all products with the same level of scrutiny. Thank you for your time.”

Motion: Dale Peck moved to finalize May 3, 2017 TGC Meeting minutes review.

Second: Mike Reno

Voice Vote: Motion carried unanimously. Minutes will reflect changes and be posted to DEQ’s website as final.

After the voice vote Dave Lentz, from Infiltrator (via phone) said he would like to correct statements from comments made earlier. Dave Lentz stated that Fred Vengrouski’s statement about Infiltrator’s product never intended for approval is not accurate and completely erroneous. Dave Lentz said that we are not proposing 70 ft. per bedroom; the manual states the 70ft/bedroom requirement. Infiltrator is selling the product and is intended for sale. Infiltrator’s intent is to participate in market systems and is not intended to sit on a shelf. Infiltrator will provide DEQ with field data.

10:53 AM James Craft moved to take the Service Provider Exam section on the agenda and move it to the end of the meeting to allow the TGC to enter into an executive session due to the sensitivity of discussing exam questions and answers pursuant to Idaho Code § 74-206(1)(d) to consider records exempt from disclosure under Idaho Code § 74-108(5).

First: Dave Peck

Second: Kellye Eager

Voice Vote: Motion passed

APPENDIX B:

10:55 AM **Discussion on draft changes to TGM Section 4.19.3.4 Dosing Chamber**

- TGC to discuss proposed changes by Allen Worst’s to Section 4.19.3.4

Dale Peck asked James Craft to clarify if these comments provided by Allen Worst to Technical Guidance Manual Section 4.19.3.4 are to review for preliminary approval? James Craft said, “Yes”. Due to Joe Canning’s absence, James Craft read an email submitted by Joe Canning dated May 27, 2017 to address his comments on section



4.19.3.4.4.a, 4.19.3.4.4.c. See Appendix B for a copy of Joe Canning’s email dated May 27, 2017 with comments.

Regarding 4.19.3.4.5.a:

James Craft read Joe Canning’s comment: “4.19.3.4.5.a – Is the word “vault” necessary to be added? It seems that it could be eliminated and still work in the text. I am thinking of the full pump screen that I still see occasionally.”

Dale Peck stated the word “vault” should be used elsewhere. James Craft made revisions to the document according to comments discussed at the time.

James Craft read Joe Canning’s comment, **4.19.3.4.5.a**: “What is a ‘larger flow’ system? Will everyone know what that is? This is also mentioned in **4.19.3.4.5.c**.”

Dale Peck asked Alan Worst, “Wouldn’t it be anything greater than a single family home? What amount of gallons is 4sq ft. to represent?” Alan Worst (via phone) responded, “It was a minimum requirement sq. ft. to any filter. 150 to 350 gallons per day.” Dale Peck asked, “Anything less than 5 beds?” Mike Reno asked, “Is larger flow anything less than 500 gal per day?” Alan Worst (via phone) responds, “Yes.”

Jason Peppin said, “I have one concern with that. With a house and accessory unit it can be over 400 gallons a day easily. How do we fill the gap between larger flows and non-pressure systems?” Mike Reno stated, “Anything over 1,500 sq. ft.?” Dale Peck stated, “It is quite a bit less than previous calculations. How was 12 sq. ft. derived?” Mike Reno asked, “Are current filters approved for 12 sq. ft.?” Alan Worst replied, “They are not.” Jason Peppin states 4 sq. ft. is flow area vs screen area? Alan Worst replied, “Yes 4 sq. ft.” Jason Peppin commented, “Effluent filter surface area can be holes or slots that are wider apart between flow areas.”

Dale Peck clarified, “So flow area is the holes and spacing area where water can flow through.” Alan Worst said, “Yes. In looking at the list of those with pump filters, most would not meet requirements. All pump vaults, pump screens currently in Idaho have 4 sq. ft.” Dale Peck stated, “So we would say no greater than 400 gal per day for a single family residence?” Alan Worst replied, “Yes I am fine with that.”

Alan Worst said, “I would bring our attention to the charts with flow data. They are dramatically higher than anything we would need. We can set it at what makes the most sense with what is needed and what fits the engineering. The flows in this chart cover up to 800 gallons per day for a 4 year maintenance guide.” Dale Peck stated, “Looks like it is good for everything but engineered systems. What if we changed the wording to non-engineered applications?” James Craft corrected section 4.19.3.4.5.a



to reflect discussion of TGC. Alan Worst, Mike Reno and Dale Peck agreed on the changes.

Dale Peck suggested charts given by Alan are included. Alan Worst said, “I recommend seeking that info from other manufactures. I don’t want those calculations to come from me. These are calculations I put together based on their literature, but not necessarily public calculations.”

Jason Peppin stated Joe Canning’s Comment for **4.19.3.4.5.a**, “Will ‘larger flow’ systems be PE designed?” was addressed in earlier changes.

James Craft read Joe Canning’s comment for **4.19.3.4.5.a** “This section on a “pump screen” is being eliminated. I still occasionally see them on new systems and feel they have worked well over the years. It seems the screen should still be an option.” Jason Peppin stated, “Striking the word ‘vault’ takes care of this.” Mike Reno agreed it was already addresses. Alan Worst also agreed striking the word vault is okay. Jason said, “The term ‘vault’ is used interchangeably; to strike it will eliminate confusion.” Alan Worst agreed to Jason Peppin’s comment.

James Craft read Joe Canning’s comment for **4.19.3.4.5.c**, “The word “can” should be changed to “may.”

Dale Peck suggested to, “Take out ‘vault’ in 2nd line for consistency, and change ‘may’ to ‘can’ in the first line. James Craft made changes in the document according to what was agreed on during the discussion.

Alan Worst asked, “Is referring to manufacturer rate of flow related to effluent filter? Dale Peck asked, “Why are we using 4 years?” Alan Worst commented regarding Dale Peck’s question, “To correspond to septic tank pumps cleaning intervals with when the filter is to be changed. I picked 4 years out of the air. It is my attempt to help the home owner remedy the situation around needing to clean the effluent filters with a closed off mechanisms.” Alan Worst said, “That filter is not in the best interest of the home owner to address flow on a regular basis. With that said, PolyLok does have other filters that would meet the requirement.”

Mike Reno asked, “What would DEQ have to do to say to the home owner, your filter was approved but is no longer approved for the state of Idaho? That would affect a lot of people.” Dale Peck clarified if PolyLok is the one with a shut off valve. Alan Worst verified, yes it had a shut off valve. James Craft asked the committee, “What do we recommend to the State?” Alan Worst replied commenting on the use multiple filters. Mike Reno said, “On PolyLok filters we can leave as approved because of the design of the filters.” Dale Peck questioned, “Unless it has a self-locking closed mechanism?” Mike Reno replied, “I don’t feel comfortable going back and saying



they are not approved when we don't have evidence of them not working." Alan Worst comments in regards to possibly having problems with just one filter. Mike Reno said, "Right now it cannot be used as a screen in place of a pump unless it has a closed off feature."

Dale Peck asked the Technical Guidance Committee, "What do we propose the paragraph should state?" Mike Reno suggested, "...unless close off feature to prevent effluent from being discharged to drain field when filter is removed. Dale Peck also suggested changing the wording "large flow" in paragraph above. Kellye Eager stated, "Yes we should keep it consistent with the single family requirements." James Craft changed the document to reflect discussion changes.

James Craft read Joe Canning's comment on section **4.19.3.4.5.e (old)** – "This section on requiring a closing mechanism is being deleted. Does everyone agree with this? Looking at the table of products that Allen put together, many have closing mechanisms and many don't. I don't have much of an opinion on this. The old style pump screens could certainly be removed from the dosing tank and the system would continue to operate." Dale Peck commented, "We have taken care of Joe Canning's comment **4.19.3.4.5.e** because put the closure mechanism back in.

James Craft read Alan Worst's comment received via email on June 7, 2017, "Any effluent filter used in a septic tank in place of conventional outlet piping, shall conform to the liquid draw requirements listed under IDAPA 58.01.03.007.11.d. which is 40% of tank liquid volume in vertical walled tanks, and 35% on horizontal cylindrical tanks." Alan Worst's comment was incorporated to Section 4.19.3.4. and added as paragraph 5.d.

Motion: Mike Reno moved for preliminary approval for this appendix as amended.

Second: Dale Peck

Voice Vote: Motion was passed unanimously. Section 4.19.3.4 Dosing Chamber to be posted for 30-day public comment period.

See DEQ website and Appendix B and provide comments by July 17, 2017, 5 PM MST to James Craft by email at james.craft@deq.idaho.gov.

11:35 AM James Craft called for a 10 minute break

11:45 AM Meeting Resumed

APPENDIX C

11:45 AM **Section 1.4 Product Approval – Review for final approval**



James Craft stated no public comments were received with in the 30 days. Dale Peck asked, “Did DEQ make any additional changes?” James Craft replied, “No additions were made in this section.”

Motion: Dale Peck motioned for final approval

Second: Mike Reno

Voice Vote: Motion passed unanimously. Section 1.4 Product Approval will be updated in the Technical Guidance Manual and posted on the DEQ website within 30 days.

APPENDIX D

11:46 AM Section 1.5 Installer’s Registration Permit and Service Provider Certification

James Craft discussed a few comments provided by Barry Burnell, DEQ State Water Quality Division Administrator. No public comments received on section 1.5 Installer’s Registration Permit and Service Provider Certification.

Motioned: Mike Reno moved for the final approval with recommended changes by Barry Burnell

Second: Jason Peppin

Voice Vote: Motion passed unanimously. Section 1.6 Service Provider will be updated in the Technical Guidance Manual and posted on the DEQ website within 30 days.

APPENDIX E

11:47 AM Section 1.6, Service Provider- Review for final approval

James Craft stated no public comments were received on this section.

Motion: Dale Peck motioned to approve for final approval

Second: Kellye Eager

Voice Vote: Motion passed unanimously. Section 1.6 Service Provider will be updated in the Technical Guidance Manual and posted on the DEQ website within 30 days.



APPENDIX F

11:50 AM **Section 1.9, Managed Operation, Maintenance, and Monitoring - Review for final approval**

James Craft stated no public comments were received on this section.

Motion: Kellye Eager moved to approve for final approval

Second: Dale Peck

Voice Vote: Motion passed unanimously. Section 1.9 Managed Operation, Maintenance, and Monitoring will be updated in the Technical Guidance Manual and posted on the DEQ website within 30 days.

APPENDIX G

11:52 AM **Section 4.8, Extended Treatment Package System - Review for final approval**

James Craft stated no public comments were received on this section.

Motion: Mike Reno moved for final approval

Second: Dale Peck

Voice Vote: Motion passed unanimously. Section 1.9 Managed Operation, Maintenance, and Monitoring will be updated in the Technical Guidance Manual and posted on the DEQ website within 30 days.

11:55 AM Adjourn for lunch

12:50 AM Meeting Resumed

NOTIFICATION LETTERS

12:50 AM James Craft stated he has received feedback from the public outreach notification letters about service providers that were sent out to property owners. Several calls have come in with lots of questions concerning the letter, such as: "I don't have access to a computer", "My neighbor received a letter and I have a similar system but didn't receive a letter", and "Who do I contact to get a list of service providers?" DEQ will issue another public outreach notification letter later in the year to update property owners. James Craft plans to send another letter later in the year with a list of service providers. Dale Peck suggested another option is to have the service providers visit their local Public Health Department for a list and it will be closer to September when we know who is available and can be put on that list.



Alan Worst commented on the current operator list of non-profit names, “We only have 3; Orenko, Bio Micromics, and Everlasting. Those names can be included in the outgoing letter.” James Craft stated, “We can try and do that. I have updated addresses for those that have called and said they didn’t receive a letter. We will try and keep a current list of those.” Dale Peck asked James Craft to please share addresses with us since we probably do not have them either. James Craft agreed to share that information with each other as either party is informed of changes. James Craft noted there is a certain format needed for the addresses to be mailed out and which he will pass on to the Health Districts.

Dale Peck asked, “When is the next reminder letter being sent out?” James Craft answered, “A letter can be issued late August to September with status update and current list of service providers.” Dale Peck noted September or October is a good idea.

OTHER

12:56 AM

- **DEQ to update TGM for ASTM Standard Update for Corrugated Polyethylene Pipe and Fittings: ASTM F677 supersedes ASTM F40:**

James Craft mentioned the following: Updated TGC members with a change in ASTM designation markings. Corrugated Polyethylene Pipe with ASTM F405 markings had perforations with round holes. Corrugated Polyethylene Pipe ASTM F405 was replaced with ASTM F667 and now has oblong holes. New ASTM does not specify the shape but 1) The perforations shall be cleanly cut and uniformly spaced along the length and circumference of the pipe in a size, shape, and pattern suited to the needs of the user. 2) The inlet area of the perforations shall be a minimum of 1 sq. in. per foot [21 sq. cm per meter] of pipe, unless otherwise specified by the user.

- **Manufacturers specific training notification to manufacturers and service providers:**

James Craft mentioned the following: Are manufactures aware of the upcoming rule changes and needed manufacturing training needed for service providers? Was formal notification given to manufacturers?

Mike Reno and Dale Peck both commented they were not sure if formal notification was given. As well as, it is important they know at least the 3 names (Everlasting, Bio Micromics, and Orenko).

- **List of service providers on DEQ internet:**

James Craft commented, “DEQ will instruct property owners to contact their local Health District and/or DEQ website to find a current list of service providers.”



- **DEQ and TGC to review the Infiltrator ATL design and installation manual and provide feedback to Infiltrator:**

James craft said, "I will send DEQ's comments on the initial draft manual sent in by Infiltrator out by the end of the week. Infiltrator will have a chance to review DEQ's comments and send in a revised manual for further review by DEQ and TGC members.

- **DEQ to send guidance for deviation on Presby's AES installation requirements from the above grade capping fill requirements to the seven health districts:**

James- DEQ received a reply from Norm Semanko, Attorney representing Presby as follow up from the May 3, 2017 TGC meeting. DEQ is reviewing the letter and will develop guidance later. DEQ has no further comments.

1:05 PM James Craft motioned to go to an Executive closed meeting to discuss the Service Providers Exam. I move to enter into an executive session pursuant to Idaho Code § 74-206(1) (d) to consider records exempt from disclosure under Idaho Code § 74-108(5). We will excuse the audience members at this time. Thank you for attending.

SERVICE PROVIDER EXAM

1:05 PM **Discuss exam content and recommendations received from Health Districts. Discuss language DEQ will require on the complex license to identify the installer as a Service Provider.**

James Craft speaking about the service provider exam said, "I narrowed down the exam to 50 questions, both multiple choice and true/false statements." Kellye Eager said, "Are you asking a question on a date, and only one time?" James Craft responded, "Yes there is one question on a date.

Tim Wright (TGC Guest), asked, "When they have passed a test, how long is it certified for?" Mike Reno responded, "Annually certification from the manufacture is given. They have to provide documentation of training every year for the service provider." Tim replied with a question, "Do they only have to pass the test once?" Kellye Eager comments certification is from the manufacture yearly. Jason Peppin stated a refresher course is done every 3 years. Dale Peck said, "They need certification from manufacture every year stating that they are in good standing with them to still install the product and they are properly performing the maintenance." James Craft mentioned it is on the manufacture to determine the standing of the service provider. Dale Peck referred to proposed rule change for IDAPA 58.01.03.006.06.c and 58.01.03.006.c. Kellye Eager commented entities have been servicing ETPS systems long enough to know who to rely on.



Dale Peck asked, “Could I get a brief letter from James Craft to the Health Department indicating the Rule change was done with legislative intent and that no fee was associated with it.” James Craft mentioned DEQ will issue a letter about the rule change and no fee.

James Craft asked, “Is there a certificate or proof of passing?” Mike Reno responded, “DEQ has provided it, they decide what to put on it.” Dale Peck suggested it is best to have separate certificates/documents. James Craft asked them to send him an example of the certificate. Dale Peck asked, “Is there a specific language DEQ wants to see on a Certificate in conformance with the Rule, not involved with what currently issuing on licenses?”

James Craft asked if he could get a copy of current complex license. Mike Reno said he could get that for James.

Tim Wright (TGC Guest) asked, “Who proctors the test?” Dale Peck replied, “Health Districts are giving the test.” Jason Peppin stated he had a general question, “What exam resources are they going to have to pull for this test?” James Craft replied, “I got all the information from EPA’s website, DEQ’s website, and TGM. It was all readily available on the internet without needing a class.” Dale Peck asked if the Service Providers exam was open book. Mike Reno said, “Currently our installers test is open book and we did it that way so they don’t call us all the time.” Jason Peppin commented even with it being open book it is challenging for service providers.

Tim Wright (TGC Guest) mentioned, “Service providers are not allowed to have a computer with them during the test. A study guide would be nice to have because of the number of places used to search for questions/answers. It will be really hard to pass without a list of what to look at before taking the test.” Mike Reno asked James Craft if he could put together at least one study guide list. James Craft agreed to do so. Jason Peppin comments, “Picturing some of the service providers, they could benefit from a Study Guide.” James Craft said, “I can put together a short study guide.” Dale Peck mentioned, “I think it is important to get people to this level. For the first round we might experience some trouble, but we want people who are capable and able to do this, to maintain them, and to be qualified.

James Craft asked, “What is a minimum passing score?” Mike Reno replied it was 70%. Dale Peck commented, “Let’s not make it too easy, but it would be nice to have at least 2-3 people qualified in each district. “ James Craft commented, “We will learn the first time as it is taken and make adjustments and more questions overtime with multiple tests. Jason Peppin mentioned, “Typically we do have multiple tests, but for this we will not have a lot of people taking the test at one time.”



Dale Peck asked James Craft, “Was this test intended to be handed out the first round?” James Craft replied, “This test is what will be passed out to the service providers.” Jason stated, “I think it is applicable as long as they know where the information is coming from.”

Dale Peck asked, “Can it be offered before July 1st?” Larry Water (TGC Guest) commented, “It probably should because of certification being due on that day.” James Craft said he could complete a study guide by July 1st. Kellye Eager asked the TGC members if the test could be given out to a couple of people before July 1st since they already have had people asking us about it. Dale Peck mentioned, “We have been getting some phone calls from home owners wanting a list of service providers.” Larry Waters said, “We don’t have a list right now, but it will be posted on DEQ website when we have it.” James Craft agreed, “Yes, we will post it when we have it.” Dale Peck commented, “The homeowner complaints were the catalyst to make these changes.”

Tim Wright asked, “When reporting is done in July 2018, who do they report to? Is it James, is it me?” James Craft replied, “The reports go to the Health Department.” Larry Water said, “The Health Department have been sending them to the DEQ Regional Office but initially it goes to the Health Department.”

Dale Peck clarified with Mike Reno that he will give a copy of the current license to James Craft. Mike Peck had already started to get that going. James Craft commented, “I will run by Mike Reno any other legal requirements to make sure they are proper legal certifications. Is it worthwhile for more information/instructions to be on the certificate?” Mike Reno said, “It is better with less info for our IT department. Let us address that as part of the training for testing.” Dale Peck mentioned, “Four years from now we will collectively come up with a universal refresher course. One year from now after the first round we can already note problems and issues to be looked at for the next cycle.”

James Craft asked, “Are there any other thoughts on the Service Provider Exam?” TGC Members responded, “Nope, it is very positive, thank you for putting it together.”

NEXT MEETING:

1:30 PM James Craft proposed to have the meeting adjourned. The next committee meeting is scheduled to be on September 7, 2017 from 9:30AM to 2:30 PM. It will be held at the Idaho Department of Environmental Quality’s state office.

Motion: Kellye Eager moved to adjourn the meeting.



Second: Mike Reno

Voice Vote: Motion carried unanimously.

1:35 PM The TGC meeting was adjourned.

List of Appendices from June 8, 2017 Meeting

Appendix A:

May 3, 2017 TGC Meeting Minutes

Appendix B:

TGM Section 4.19.3.4 Dosing Chambers

Status: Preliminary Approval – Posted for 30-day Public Comment

Appendix C:

Section 1.4 Product Approval

Status: Approved

Appendix D:

Section 1.5 Installer's Registration Permit and Service Provider Certification

Status: Approved

Appendix E:

Section 1.6 Service Provider

Status: Approved

Appendix F:

Section 1.9 Managed Operation, Maintenance, and Monitoring

Status: Approved

Appendix G:

Section 4.8 Extended Treatment Package System

Status: Approved

Appendix H:

Public Comments Received for June 8, 2017 Meeting



State of Idaho
Department Of Environmental Quality
Technical Guidance Committee

Appendix A

Technical Guidance Committee

Meeting Minutes

Wednesday May 3, 2017

Conference Room B

Department of Environmental Quality

1410 North Hilton

Boise, ID

TGC ATTENDEES:

Tyler Fortunati, REHS, IPDES Compliance, Inspection, and Enforcement Lead, DEQ (TGC Chairman)

Joe Canning, PE, B&A Engineers

Dale Peck, PE, Environmental & Health Protection Division Administrator, PHD

Michael Reno, REHS, Environmental Health Supervisor, CDHD

Jason Peppin, REHS, Senior Environmental Health Specialist, PHD

James Craft, Onsite Wastewater Coordinator, DEQ (TGC Co-Chairman)

GUESTS:

Larry Waters, PE, Wastewater Program Engineering Manager, DEQ

Mark Cecchini-Beaver, Deputy Attorney General, DEQ

Tim Wright, SWDH

Lisa Bahr, SWDH

PaRee Godsill, Everlasting Extended Treatment

Dick Bachelder, Infiltrator Systems, Inc.

Jay Holman, Infiltrator Systems, Inc

Norm Semanko, Moffatt Thomas Attorney representing Presby Environmental, Inc

Fred Vengrouskie, Presby Plastics, Inc. (via telephone)

Don Prince, Presby Plastics, Inc. (via telephone)

Lee Rashkin, Presby Environmental, Inc. (via telephone)

Allen Worst, R.C. Worst & Company, Inc. (via telephone)



CALL TO ORDER/ROLL CALL:

Meeting called to order at 10:00 a.m.

Committee members and guests introduced themselves. James Craft introduced himself as the new Onsite Wastewater Coordinator for DEQ.

OPEN PUBLIC COMMENT PERIOD:

Allen Worst followed up with a question from the TGC's last meeting on March 9, 2017 to see if his recommendations were considered on pump vault effluent filters. There was confusion on whether DEQ or Allen Worst would be drafting a proposal. Tyler Fortunati stated that DEQ would draft an amendment based on Allen's proposal for the next meeting.

Tyler Fortunati stated that there was public comment received via email from PaRee Godsill. Tyler verified with PaRee that he would hold the comments until the specific agenda items were being discussed by the committee so they could better address the requests.

No further comments from the public.

MEETING MINUTES:

10:07 AM March 9, 2017 Draft TGC Meeting Minutes: Amend and Approve

Recommendation from Mike Reno to amend meeting minutes regarding the Presby System Manual typo from "15" inches to "12" inches. Reference: "These sections need to be revised to show a minimum of [12] inches of sand below the natural ground surface and a minimum of 3 inches of the pipe invert below the natural ground surface."

Motion: Mike Reno moved to approve the minutes as amended and post them to the DEQ website.

Second: Joe Canning

Voice vote: Motion carried unanimously.

NEW BUSINESS/REVIEW:

10:10 AM Presby System Manual

Discussion began with the committee that the Presby manual be changed to be consistent with the above grade capping fill requirements as required by the Technical Guidance Manual (TGM) and as per the DEQ letter issued to Presby on April 19, 2017. The letter instructed Presby to revise appropriate sections of the



Presby manual and then to resubmit for TGC review at the May 3, 2017 meeting. No response has been received by DEQ from Presby.

Norm Semanko, Attorney, representing Presby recapped on the approval process that Presby went through with DEQ for the Presby Advanced Enviro-Septic (AES) product. Norm Semanko expressed concerns about the TGC attempting to require changes to the Presby manual since DEQ approved the manual and product placement.

Mike Reno discussed how the approval process works on proprietary systems such as Presby's and how approval of their manual was given by DEQ, not by the committee.

Tyler Fortunati recommended Presby respond in writing to the DEQ letter to address any specific concerns or interests regarding this issue.

Norm Semanko also addressed a possible conflict of interest with committee members voting on a matter which they or their business have a pecuniary interest, without first disclosing the conflict of interest, as required by law.

DEQ will consult with their assigned Deputy Attorney General regarding Presby's concerns once a written response is received. Until the matter is resolved with Presby, Mike Reno requested DEQ to send guidance for deviation on Presby's AES installation requirements from the above grade capping fill requirements to the seven health districts.

10:37 AM **Infiltrator ATL**

Dick Bachelder presented an approval request for the proprietary Infiltrator ATL system in Idaho. Design and installation manual details were discussed by the TGC for product approval consideration. TGC members stated initial comments and edits to Dick Bachelder. Tyler Fortunati stated DEQ needs more time to review the design and installation manual and will issue a letter to Infiltrator summarizing DEQ's comments and the TGC's recommendations for manual revisions. Dick Bachelder noted the initial recommended changes and edits and will revise the manual. A comment letter was received from Presby dated May 2, 2017 was just provided. See Appendix G.

11:47 AM **Working Group & DEQ Reviewed TGM changes during TGC Final Review.**

Section 1.4 Product Approval

No public comment was received on this section. The TGC made minor phrasing edits and inserted a reference to TGM section 4.8.2 to clarify section 1.4.2.2.3.



Motion: Mike Reno moved to approve section 1.4 Product Approval as amended.

Second: Joe Canning

Voice Vote: Motion passed unanimously. Section to be posted for 30-day public comment period.

See DEQ website and **Appendix B** and provide public comments by June 5, 2017 to James Craft by email at james.craft@deq.idaho.gov.

Section 1.5 Installer’s Registration Permit and Service Provider Certification

No public comment was received on this section. TGC made minor phrasing edits to include “Director identified” to section 1.5.

Motion: Dale Peck moved to approve Section 1.5 as amended.

Second: Mike Reno

Voice Vote: Motion passed unanimously. Section to be posted for 30-day public comment period

See DEQ website and **Appendix C** and provide public comments by June 5, 2017 to James Craft by email at james.craft@deq.idaho.gov.

Section 1.6 Service Provider

No public comment was received on this section. TGC defined “OMM” Operations, Maintenance and Monitoring within section 1.6.

Motion: Joe Canning moved to approve Section 1.6 as amended.

Second: Mike Reno

Voice Vote: Motion passed unanimously. Section to be posted for 30-day public comment period.

See DEQ website and **Appendix D** and provide public comments by June 5, 2017 to James Craft by email at james.craft@deq.idaho.gov.

Section 1.9 Managed Operation, Maintenance, and Monitoring

Tyler Fortunati read public comments submitted by PaRee Godsill. The TGC incorporated PaRee Godsill’s request to remove “Annual” from section 1.9.1(1) and



1.9.2(3)(a) in regards to operation and maintenance due to some systems requiring more frequent servicing per the manufacturer. The TGC agreed with the recommendation and removed the word “Annual” from said sections.

Motion: Dale Peck moved to approve Section 1.9 as amended.

Second: Joe Canning

Voice Vote: Motion passed unanimously. Section to be posted for 30-day public comment period.

See DEQ website and **Appendix E** and provide public comments by June 5, 2017 to James Craft by email at james.craft@deq.idaho.gov.

Section 4.8 Extended Treatment Package System

No public comment was received on this section. The committee had no further questions or comments.

Motion: Mike Reno moved to approve Section 4.8.

Second: Dale Peck

Voice Vote: Motion passed unanimously. Section to be posted for 30-day public comment period.

See DEQ website and **Appendix F** and provide public comments by June 5, 2017 to James Craft by email at james.craft@deq.idaho.gov.

TGC agreed no further committee review was needed on the following sections:

Section 4.8.2 Approval Conditions

Section 5.4 Extended Treatment Package System

Appendix A Glossary

12:27 AM Adjourn for Lunch

1:35 PM Meeting Resumed

1:35 PM **Subsurface Sewage Disposal ETPS Program Instruction**

The TGC discussed the draft changes to the Subsurface Sewage Disposal ETPS Program Instruction. The committee gave no further comments or edits. DEQ will work with the Environmental Health Directors to finalize the program instruction



and template letters by July 1, 2017. The TGC will not need to review this document since it is a DEQ and health district SOP/policy on how to manage the ETPS enforcement.

1:39 PM **Notification Letters**

The committee held general discussion regarding notification letters and DEQ internal program requirements to reflect upcoming changes in the rule that come into effect on July 1, 2017. Tyler Fortunati read comments received from PaRee Godsill for notifications letters to include language on:

- 1) Eliminating the requirement to be a member of a non-profit entity,
- 2) How to stay in compliance or get into compliance for annual reporting,
- 3) Any violations or penalties, and
- 4) Providing a service providers list for property owners.

DEQ will obtain a current installed ETPS systems list from each Health District. DEQ will produce letter(s), public notices and templates with review from AG's office. DEQ will verify with AG's office on how a public notice letter can be used for recording the release of an O&M entity easement for the property owner. Notification letters from DEQ are to be mailed out to notify property owners of the rule change by May 22, 2017.

1:49 PM **Service Provider Certification Exam**

The TGC discussed service provider certification exam and types of questions that should be used. Questions will cover operation, testing and sampling of wastewater, and monitoring requirements on complex alternative systems. Questions may be used from the Idaho Bureau of Occupation Licenses (IBOL) Wastewater Treatment 1 exam. Exam questions will be vetted through Health Districts for input and consideration. Multiple versions of the service provider exam will be developed over time.

Comments submitted by PaRee Godsill were discussed by TGC on how proper training in wastewater collection is necessary due to the 90% compliance requirement. PaRee Godsill recommends that a good portion of the exam should cover wastewater collection requirements.

1:56 PM **Other**

Service Provider Refresher Courses:



TGC discussed providing service provider training/refresher courses through existing training opportunities offered by DEQ, regional conferences and/or to create specific OMM training related courses.

Manufacturers Specific Training Notification to Manufacturers & Service Providers:

Tyler Fortunati read submitted comments from PaRee Godsill about manufacturer specific training-service providers. The TGC agreed with PaRee Godsill's comment that, "making exceptions for a service provider to service a technology they are not certified in should never be allowed again."

Bonding:

Tyler Fortunati stated bonding companies may need to revise verbiage for service providers due to new rule change.

DEQ to discuss enforcement and involvement with Health Districts for the next 2 years during implementation of new requirements.

DEQ to post and maintain a list of service providers on DEQ internet after new rule becomes effective.

Tim Wright asked the TGC if nitrogen reduction requirements (less than 16 mg/L) only affect nitrate priority areas. Mike Reno replied that areas of concern will be stuck with the 16 mg/L requirement because the area or sub division may be a possible threat.

Tim Wright asked TGC for clarification about the proof of certification and training from manufactures and how that will be submitted to DEQ. Tyler Fortunati explained the certificate document will need to be submitted annually to DEQ.

NEXT MEETING:

2:20 PM The next committee meeting is scheduled to be on June 8, 2017 at the Idaho Department of Environmental Quality's state office.

Motion: Mike Reno moved to adjourn the meeting.

Second: Joe Canning.

Voice Vote: Motion carried unanimously

2:21 PM The TGC meeting adjourned.



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TGC Parking Lot

This is a running list of issues requested to be presented at a future TGC Meeting:

- DEQ to develop exam questions for service provider
- DEQ will draft an amendment based on Allen Worst's recommendations on pump vault effluent filters.
- DEQ and TGC to review the Infiltrator ATL design and installation manual and provide feedback to Infiltrator

DEQ to send guidance for deviation on Presby's AES installation requirements from the above grade capping fill requirements to the seven health districts.



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Appendix B

4. Each dose delivered to the infiltrative surface of the drainfield should not exceed 20% of the estimated average daily wastewater flow. If the total dose volume is too small, then the pipe network will not become fully pressurized or may not be pressurized for a significant portion of the total dosing cycle and may need to be adjusted.

4.19.3.4 Dosing Chamber

Dosing chambers are tanks that contain a pump or siphon and their associated equipment. The dosing chamber is either a separate septic tank located after the septic tank or may be the last compartment of a multi-compartment septic tank. If the dosing chamber is part of a multi-compartment septic tank, it must be hydraulically isolated from the compartment(s) of the tank that comprise the septic tank portion of the tank. The construction of a dosing chamber shall meet the requirements of IDAPA 58.01.03.007 except as specified herein. Figure 4-20 provides a dosing chamber diagram with a pump and screen, and Figure 4-21 provides a dosing chamber diagram with a pump vault unit. —

1. Dosing chambers must be listed on the approved list of dosing chambers (section 5.3), or must be listed on the approved list of septic tanks (section 5.2).
2. Pump vaults and effluent filters must be listed on the approved list of pump vaults (Section 5.8), or must be listed on the approved list of septic tank effluent filters (Section 5.9).
3. Any system using a pump located after the septic tank to deliver effluent to the drainfield (pressurized or nonpressurized) or a nonpackaged alternative pretreatment component shall locate the pump in a dosing chamber meeting the minimum requirements herein.
4. Dosing chamber must be watertight, with all joints sealed. Precautions must be made in high ground water areas to prevent the tank from floating.
5. Effluent must be screened or filtered prior to the pump.

a. A screen constructed of non-corrosive material must be installed to protect the pump with a minimum of 1/8" holes or slits and have a minimum screening flow area of 4 ft² for non-engineered applications. ~~The filter flow area requirements for engineered systems should meet the screen cleaning interval requirements outlined in the system operation & maintenance manual.~~

a. ~~screen must be placed around the pump with 1/8-inch holes or slits of noncorrosive material and have a minimum area of 12 ft².~~

b. Screen placement must not interfere with the floats and should be easily removable for cleaning.

c. An effluent screen or filter placed in the septic tank may be used as a suitable alternative to pump screens, and must be constructed with 1/8" or smaller holes or slits of non-corrosive material and include a flow area appropriate to provide a rated mean-time between screen cleanings of 4 years or more based on system design flow or have a screening flow area of at least 1 ft² in non-engineered systems unless the filter has a close-off feature that prevents effluent from being discharged to the drainfield when the filter is removed. If placed in the septic tank, then a riser to finish grade is ~~required~~ to provide easy access for

Comment [BB1]: First use.

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Comment [JC2]: Moved to item d.

cleaning. ~~The~~ All screens must be installed according to manufacturer's recommendations.

d. The filter flow area for engineered systems should meet screen cleaning interval outlined in the system operation & maintenance manual.

e. Any effluent filter used in a septic tank in place of conventional outlet piping, shall conform to the liquid draw requirements listed under IDAPA 58.01.03.007.11.d. which is 40% of tank liquid volume in vertical walled tanks, and 35% on horizontal cylindrical tanks.

~~e. An effluent filter placed on the outlet of the septic tank, designed with a closing mechanism when the filter is removed, is a suitable alternative to screens around pumps. An access riser to grade should be installed over the septic tank outlet manhole to provide access to the filter for maintenance.~~

6. The volume of the dosing chamber should be equal to at least two times the system design flow when a single pump is used.

~~b.a.~~ If duplex pumps are used, the volume of the dosing chamber may be reduced to equal the system design flow. The dosing chamber must come from the approved septic tank or dosing chamber list.

~~e.b.~~ The volume of the dosing chamber must be sufficient enough to keep the pump covered with effluent, deliver an adequate dose based on the system design, and store 1 day of design flow above the high-level alarm.

~~d.c.~~ Additional dosing chamber capacity may be necessary if the pressurized system is designed to have surge capacity.

5.7. The dosing chamber manhole located above the pump shall be brought to grade using a rise. Access to the pumps, controls, and screen is necessary.

Comment [BB3]: Second use.
Should this sentence be a standalone element of 5.?

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- 6.8. A high-level audio and visual alarm float switch shall be located within the dosing chamber 2–3 inches above the pump-on level to indicate when the level of effluent in the dosing chamber is higher than the height of the volume of one dose.
- 7.9. A low-level shutoff float switch shall be connected to the pump and be set to a height that is 2–3 inches above the top of the pump. This ensures the pump remains submerged.
- 8.10. If a differential control float is used to turn the pump on and off, care must be exercised to ensure the float will effectively deal with the required dose based on the inches of drop in the dosing chamber.

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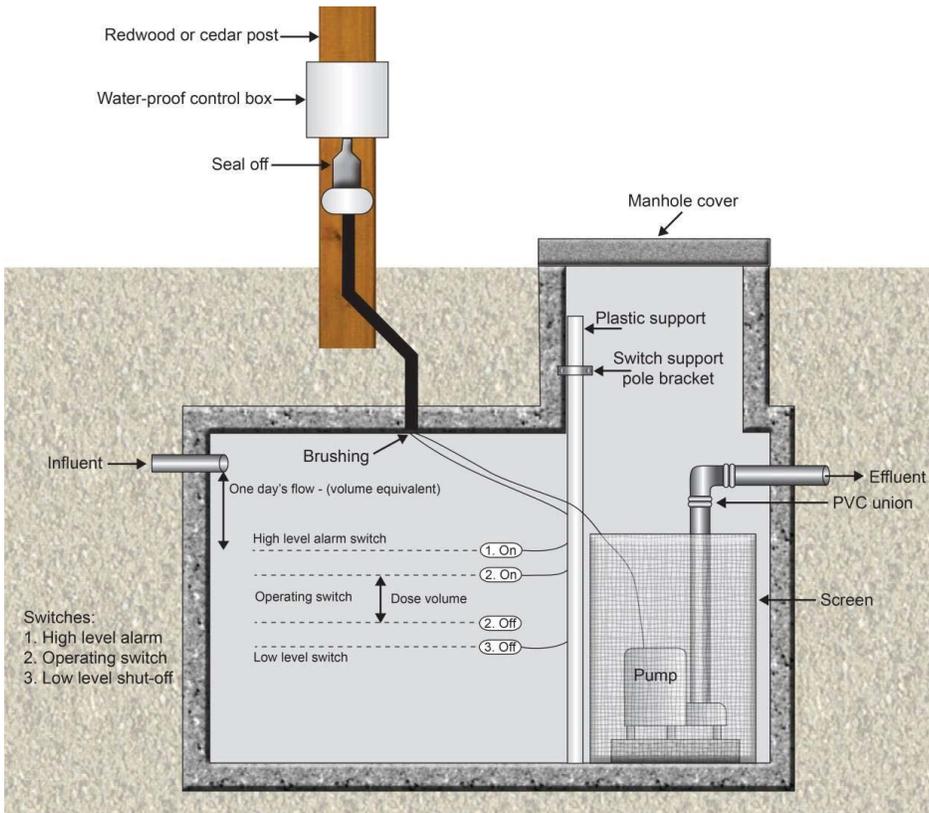


Figure 4-20. Dosing chamber with a pump and screen.

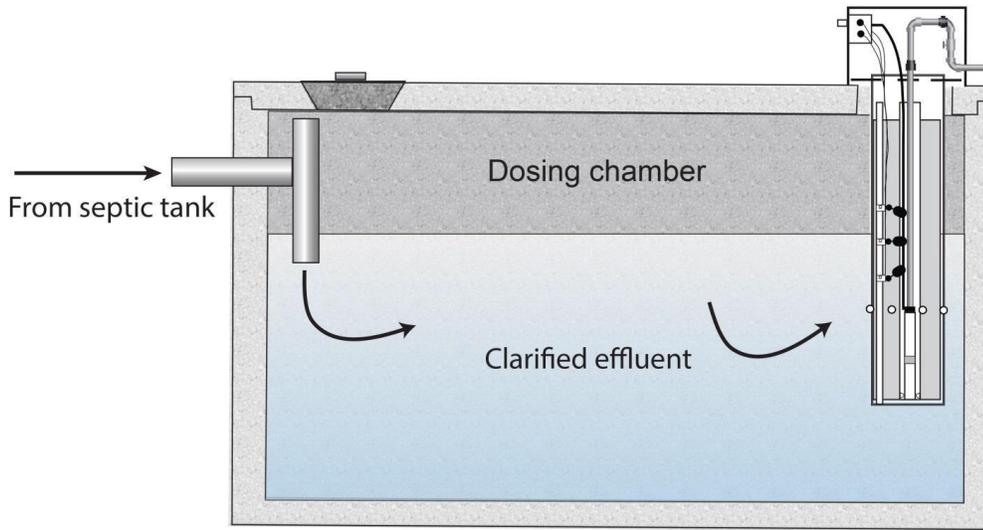


Figure 4-21. Dosing chamber with a pump vault unit.

7.11. Dosing chamber electrical requirements:

- a. All electrical system designs and installations must be approved by the Idaho Division of Building Safety, Electrical Division.
- b. Electrical permits are required for installing all electrical components and the applicant, responsible contractor, and/or the responsible charge engineer are responsible for obtaining the proper electrical permits.
- c. Installation of all electrical connections is required to be performed by a licensed electrician. The applicant, responsible contractor, and/or the responsible charge engineer are responsible for ensuring that the installation is performed by a properly licensed individual.
- d. Subsurface sewage disposal installer registration permits are not a substitute for an electrical installer license.
- e. Visual and audible alarms should be connected to a separate circuit from the pump. It is recommended that a DC battery backup power source be considered for the visual and audible alarm.

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4.19.3.5 In-Tank Pumps

Placement of sewage effluent pumps in a septic tank is an acceptable practice under the following conditions:

- 1.5. The site is too small for the installation of a dosing chamber or a septic tank with a segregated dosing chamber compartment, or the flows are less than 100 GPD.
- 2.6. Sewage effluent pumps must be placed in an approved pump vault (section 5.8).
- 3.7. Effluent drawdown from the septic tank is limited to a maximum 120 gallons per dose with a maximum pump rate of 30 GPM.

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From: Joseph D. Canning
To: [James Craft](#)
Subject: TGC June 8th Meeting - Comments on Proposed Edits to the TGM Section 4.19.3.4
Date: Saturday, May 27, 2017 5:05:58 PM
Attachments: [JDC.Comments.on.Pump.Screen.Change.pdf](#)

James:

As you know I cannot attend the next TGC meeting. I will be up north at a conference. I thought I would at least comment on the proposed edits to the effluent filter section in Dosing Chambers of the TCM. Perhaps my comments will help in the discussion on the change.

Comments/Questions on Effluent Filters and Screens (Refer to Redline Edit provided to the TGC). I would agree that more guidance in this section is appropriate.

4.19.3.4.5.a – Is the word “vault” necessary to be added? It seems that it could be eliminated and still work in the text. I am thinking of the full pump screen that I still see occasionally.

4.19.3.4.5.a – What is a “larger flow” system? Will everyone know what that is? This is also mentioned in 4.19.3.4.5.c.

4.19.3.4.5.a – Will “larger flow” systems always be PE designed?

4.19.3.4.5.a (old) – This section on a “pump screen” is being eliminated. I still occasionally see them on new systems and feel they have worked well over the years. It seems the screen should still be an option.

4.19.3.4.5.c – The word “can” should be changed to “may”.

4.19.3.4.5.c – There is discussion on “a rated mean-time between screen cleanings of 4 years or more. Is this a standard term in the industry? I am thinking of all users of the TGM and how this term will be interpreted. It seems the discussion on hydraulic flow versus flow area makes more sense.

4.19.3.4.5.e (old) – This section on requiring a closing mechanism is being deleted. Does everyone agree with this? Looking at the table of products that Allen put together, many have closing mechanisms and many don't. I don't have much of an opinion on this. The old style pump screens could certainly be removed from the dosing tank and the system would continue to operate.

I have attached my handwritten edit sheet also where I created the above comments from.

Thanks,

Joe Canning, PE/PLS

Senior Engineer
B & A Engineers, Inc.
208.343.3381

ExchangeDefender Message Security: [Check Authenticity](#)



State of Idaho
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Appendix C

1.4.2.2 Extended Treatment Package System Approvals

Extended treatment package systems (ETPS) are required to undergo two levels of approval in Idaho (IDAPA 58.01.03.009.03). The first level of approval is provisional approval based upon a manufacturer's submitted literature and data that support the treatment claims for the product. The second level of approval is general approval based upon a manufacturer's proven performance after installation and operation in Idaho. Upon receiving provisional approval, a manufacturer must proceed to obtain general approval within a specified timeframe otherwise the product will be disapproved.

1.4.2.2.1 Provisional ETPS Approval

Provisional ETPS approval allows a manufacturer's unit to be installed on a property, but the system must undergo annual operation, maintenance, monitoring, and reporting performed by an approved service provider and third-party tester. Operation, maintenance, monitoring, and reporting are the responsibility of the manufacturer under provisional approval.

Manufacturers seeking provisional approval of ETPS technology shall submit product information to DEQ's on-site wastewater coordinator for review by DEQ. In addition to product information (i.e., engineering designs and product manuals), manufacturers seeking approval on ETPS units for reducing total suspended solids (TSS) and carbonaceous biological oxygen demand (CBOD₅) must submit NSF/ANSI Standard 40 approvals, reports, and associated data or equivalent third-party standards. Manufacturers also seeking approval on the ETPS units for reduction of total nitrogen (TN) must submit NSF Standard 245 approvals, reports, and associated data or equivalent third-party standards. Equivalency determinations of third-party standards shall be made by DEQ on a case-by-case basis. All third-party standards evaluated for the ETPS model must be submitted including approvals, disapprovals, reports, and associated data. ETPS units that have not undergone third-party testing and wish to be approved for reduction in TSS, CBOD₅, and TN must be permitted and installed under the guidance in Section 4.7, "Experimental System."

As part of their request for provisional approval, manufacturer shall submit a quality assurance project plan to document how sampling and analysis will occur under provisional approval and identify who will perform both the sampling and analysis. All operation and maintenance performed during the provisional approval stage shall be done by a service provider approved by DEQ. All effluent testing performed during the provisional approval stage shall be done by a third-party contracted by the manufacturer with experience in wastewater sampling. The service provider and effluent tester may not be the same individual or work for the same company. The manufacturer seeking approval and third-party tester will be responsible for obtaining property access for testing of their system's effluent during the provisional approval stage. The manufacturer shall also be responsible for effluent testing costs.

All ETPS manufacturers that obtain provisional approval for one of their products must attempt to gain general approval and shall follow the minimum operation, maintenance, and effluent-testing procedures outlined in section 1.9. Upon receiving provisional approval for an ETPS model, a manufacturer must install that specific ETPS model within 2 years. If installation of the provisionally approved product does not occur within 2 years of the provisional approval, the

ETPS model shall be disapproved (IDAPA 58.01.03.009.04). Once a manufacturer's ETPS model is installed under provisional approval, operation, maintenance, and monitoring of that unit as described in the manufacturer's quality assurance project plan and section 1.9 must begin that same reporting year unless the system was installed less than 3 weeks before the reporting deadline. Additionally, if operation, maintenance, and monitoring of the provisionally approved unit are not submitted to DEQ for any year after initial installation under provisional approval, the ETPS model shall be disapproved. Installed products under provisional approval that are disapproved shall be replaced by the manufacturer with a system that meets the installation requirements of the specific site where the ETPS model is installed.

[ETPS with initial provisional approval effective July 1, 2016 must meet the requirements of section 1.4.2.2.2 for general approval by July 1, 2018 or ~~will~~ may be considered a disapproved product.](#)

1.4.2.2.2 General ETPS Approval

General ETPS approval allows a manufacturer's unit to be installed on a property without the requirement to sample effluent on an annual basis for systems that are not required to obtain a TN level <27 milligrams per liter (mg/L). The property owner must still have their ETPS unit undergo annual operation, maintenance, and reporting performed by an approved service provider.

To obtain general approval, or to lower reduction levels from those set in a general approval for any constituent, the ETPS model manufacturer must submit data from the ETPS models installed in Idaho. The data submitted must be obtained through operation, maintenance, and monitoring protocols described in section 1.4.2.2.1 under a DEQ-accepted quality assurance project plan. Data from other states will not be considered under this approval process. Any data submitted must be specific to a particular ETPS make and model. Data submission must include information on 30 installations with a minimum of 3 full years of operational data on each system, or the equivalent number of data points obtained on an annual basis for a lesser number of installations. All maintenance and effluent testing records, as described in section 1.9, obtained over this period must be submitted for review.

DEQ will issue general approval of an ETPS product in conjunction with associated reduction levels for TSS, CBOD₅, and TN. TSS and CBOD₅ reduction levels will be set at less than or equal to 45 mg/L and 40 mg/L, respectively, based on the data showing that 90% of the installed units have successfully maintained effluent reduction levels at, or below, 45 mg/L TSS and 40 mg/L CBOD₅. TN reduction levels will be determined through statistical analysis of the data submitted. The submitted data will be statistically evaluated to determine a resulting value that corresponds to a 95% upper confidence limit. The resulting value that corresponds to the 95% upper confidence limit will be used as the system's TN performance limit. Third-party report average reduction values will not be accepted to establish system performance approvals for any constituent.

For an adjustment in reduction levels of effluent constituents to be approved from a current general approval, a manufacturer must submit data that were obtained through a DEQ-accepted quality assurance project plan as described in section 1.4.2.2.1. Adjustments shall be made based on data analysis described in section 1.4.2.2.2 except that the data must be obtained over a period

of at least 2 years regardless of the number of data points and must be obtained for ~~all~~of ~~all~~of the specific ETPS models installed in Idaho for which the adjustment is being requested.

1.4.2.2.3 Disapproved Extended Treatment Package Systems

For those ETPS that were previously permitted and installed but are ~~now disapproved~~ no longer on the approved ETPS product list, property owners are still responsible to have an approved service provider maintain these systems in accordance with section 4.8.2. Annual reports verifying proper maintenance and operations of the system must be submitted in accordance with section 1.9.3. Since disapproved systems may no longer be supported by the manufacturer in Idaho, the requirement for the service provider to be endorsed by the manufacturer is waived.

Owners of ~~disapproved~~ ETPS units that are no longer on the approved ETPS product list that fail to have their units maintained by an approved service provider and or fail to submit an annual report ~~will~~ may be considered failed and subject to enforcement action.



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Appendix D

1.5 Installer's Registration Permit and Service Provider Certification.

Revision: ~~April 5, 2017~~ July 22, 2015

An installer is considered any person, corporation, or firm engaged in the business of excavation for, or the construction of, subsurface sewage disposal systems (IDAPA 58.01.03.003.19). A service provider is any person, corporation, or firm engaged in the business of providing operation, maintenance, and monitoring of specific complex alternative systems identified by the Director in the state of Idaho (IDAPA 58.01.03.003.30). Per IDAPA 58.01.03.006.01, Every all installers and service provider shall secure from the Director an installer's registration permit. ~~must obtain either a standard/basic or complex installer's registration permit.~~ Service providers must also obtain a service provider's certification. Two (2) types of installer permits and one (1) type of service provider certification are available. These permits and certification may be obtained from any health district in the state and may be used for installing subsurface sewage disposal systems throughout the state regardless of the health district through which the registration permit/certification was obtained. Standard/basic installer's registration permit holders are limited in the type of subsurface sewage disposal systems that may be installed. Complex alternative installer's registration permit holders may install all systems that are allowed by the standard/basic registration permit and all of the following complex alternative systems:

- At-grade soil absorption system
- Drip distribution systems
- Evapotranspiration and evapotranspiration/infiltrative systems
- Experimental systems
- Extended treatment package systems
- Pressurized gray water systems
- Individual lagoons
- Pressure distribution or transport systems
- Recirculating gravel filters
- Intermittent sand filters
- Pretreated enveloped in-trench sand filters
- Pressurized in-trench sand filters
- Sand mound
- Subsurface flow constructed wetland
- Two-cell infiltrative systems
- Drainfield remediation components
- Large soil absorption systems

A service provider certification is required to perform operation, maintenance, or monitoring of specific Director identified complex alternative systems.

1.5.1 ~~Initial~~ Installer's Registration Permit Issuance and Service Provider Certification Application, Bond, Fee, Training, and Exam

Comment [BB1]: Same title used in 1.5.
Consider a different subtitle – see suggested text.

To obtain an ~~initial~~ installer's registration permit or service provider certification, the prospective ~~applicant- installer~~ shall complete the following:

1. Submit an installer registration permit application or a service provider certification application to one of the health districts (IDAPA 58.01.03.006.04).
2. Submit a bond to the health district in a form approved by DEQ and in the sum applicable to the permit type or certification sought as specified in IDAPA 58.01.03.006.05.
3. Pay the applicable permit or certification application fee as set by the individual health district's board of health (fees may vary from district to district based on program costs).
4. The applicant shall attend a scheduled installer training class or view the installer video prior to taking the required installer examination.
5. The applicant seeking certification as a service provider shall also provide annual ~~annual~~ documentation of manufacturer specific training, as required by 58.01.03. Subsection 006.06.a.
6. Pass the installer ~~or~~ and service provider examination administered by the health district with a score of 70% or higher (IDAPA 58.01.03.006.02).

Comment [BB2]: Annual is ok to keep here

1.5.2 Installer Registration Permits and Certifications Required Annually Renewal

~~All~~ installer registration permits and service provider certifications shall be renewed annually (IDAPA 58.01.03.006.03). To renew an installer ~~registration registration~~ permit or service provider certification, the following items must be completed:

1. The health district issuing the registration permit or service provider certification must receive items 1 through 3 as described in section 1.5.1. *If renewing service provider certification, item number 5 in section 1.5.1 above is also needed.
 - a. A bond continuation form may be substituted in lieu of a new bond upon registration permit or certification renewal.
 - b. If the installer registration permit is to be upgraded from a basic/standard registration permit to a complex alternative system registration permit at the time of renewal, then the complex installer shall attend a complex class or video, and the complex installer examination shall also be taken.
2. The applicant must attend a refresher course at least every third year meeting the requirements as described in section 1.5.2.1. *Individuals holding both a complex installer registration permit and service provider certification shall attend one refresher course for the complex installer registration permit and another course for the service provider certification. Installer and service provider refresher courses are not interchangeable.

1.5.2.1 Refresher Course Requirements

Installer [or service provider](#) refresher (continuing education) courses must be attended every 3 years to renew an installer registration permit [or service provider certification](#) per IDAPA 58.01.03.006.03. All refresher courses used to fulfill the refresher course requirements for an installer's registration permit [or service provider certifications](#) must be approved by DEQ. ~~R~~Installer refresher courses delivered by the health district or DEQ are approved courses. All other courses proposed to be held by non-DEQ or health district organizations to fulfill the refresher course requirements must submit an agenda and curriculum to DEQ's on-site wastewater coordinator for review prior to holding the course. Courses held to fulfill the refresher course requirements of IDAPA 58.01.03.006.03 must meet the following:

- Be based on the most recent version of IDAPA 58.01.03 and the TGM.
- Contain information on recent updates to the TGM as approved by the TGC.
- Not contain manufacturer specific information.
- Have an agenda capable of filling a minimum of a 4-hour course.

Refresher courses may also contain the following:

- Health district information specific to the subsurface sewage disposal program.
- Discussion on issues related to the subsurface sewage disposal program identified by the health districts that need to be addressed with the installers [or service providers](#).
- Presentations by non-health district or DEQ personnel as long as the presentations are not manufacturer specific.
- Other information as approved by DEQ.

Sign-in sheets should be maintained for all courses and should be filled out at the start and near the end of the course. Upon completion of the course, the course provider should provide the installer [or service provider](#) a certificate of completion that includes the course date, time attended, and course holder. Health districts should maintain a copy of the most current certificate in each installer [or service provider](#)'s file. For courses attended by an installer [or service provider](#) that are not held by the health district they are licensed through, it is the installer [or service provider](#)'s responsibility to provide the health district with a copy of their course completion certificate. If installers [or service providers](#) cannot attend a refresher course, they may meet the permit [or certification](#) issuance requirement by completing the process described in section 1.5.2.2.

1.5.2.2 Refresher Course Substitution

If installers [or service providers](#) cannot attend an approved refresher course to renew their registration permit [or certification](#), they may complete the following:

1. Schedule a time with the permitting health district to watch a health district-approved video that meets the requirements of section 1.5.2.1.
2. If installers [or service providers](#) cannot attend an in-person class for 3 consecutive years to renew their installer registration permit [or service provider certification](#), installers [and service providers](#) must watch the video referred to above and retake the installer [or certification](#) exam that applies to the permit -type [or certification](#) sought for renewal.

1.5.3 Service Provider Responsibilities

All certified service providers, who provide operation, maintenance, or monitoring for any specific Director identified complex alternative system, are is responsible for compliance with each of these rules that are relevant to those services. Additionally, each certified service provider shall:

- a. Obtain documentation of the completed manufacturer-specific training of each manufactured and packaged treatment system for which the service provider intends to provide operation, maintenance, or monitoring. Proper documentation includes a certificate or letter of training completion provided by the manufacturer. If a system manufacturer is no longer in business, that manufacturer-specific training is not required.
- b. Maintain a comprehensive list of real property owners who contracted with the certified service provider. The list shall include the current real property owner name, service property address, real property owner contact address, and subsurface sewage disposal permit number. This list shall be provided to the Director as part of the annual operation, maintenance, and monitoring reports for individual real property owners; and
- c. Submit all operation, maintenance, and monitoring records in the form of an annual report, by US Mail, for each individual real property owner with whom the service provider contracts to fulfill the real property owner's operation, maintenance, or monitoring responsibilities required through the real property owner's subsurface sewage disposal installation permit as allowed in Subsection 58.01.03.-005.14. The annual reports shall be provided to the Director by the timeframe specified in the Technical Guidance Manual 1.9.3 for the specific complex alternative system for which operation, maintenance, or monitoring is required. Annual report submittals may include more than one individual real property owner.

Comment [BB3]: A service provider ,.... , is
Or
All service providers,, are

If you want to use is here then change the start of the sentence to be singular.

1.5.4 Installer's Registration Permit Exemption

An installer's registration permit is not required for the following (IDAPA 58.01.03.006.06):

1. Any person, corporation, or firm constructing a central or municipal subsurface sewage disposal system if that person, corporation, or firm is a licensed public works contractor, is experienced in the type of system to be installed, and is under the direction of a PE licensed in Idaho.
2. Any property owner installing their own standard or basic alternative system.
 - a. Property owners installing a subsurface sewage disposal system on their property under the property owner exemption must perform all work related to the excavation and must help and supervise all aspects of construction for the system.
 - b. Commercial and industrial property owners and government entities are also allowed the exemption from an installer's registration permit for work performed on standard or basic alternative systems installed on land owned by the entity. The entity may utilize their staff and must own or rent the equipment to install the system.

The installer's registration permit exemption does not apply under the following scenarios:

1. The excavation and construction of the system are performed by an outside contractor or individual that is not the property owner.
2. The installer is installing a complex alternative system and is not a licensed public works contractor under the direction of a PE.

1.5.5 Installer's Registration Permit [or Service Provider Certification](#) Revocation

All permitted subsurface sewage disposal installers [and service providers](#) must comply with IDAPA 58.01.03.002.04. Failure to comply with these rules may result in the revocation of an installer's registration permit [or service provider certification](#) for the remainder of the current permit cycle. Permit [or certification](#) revocation may be initiated by any health district regardless of where an installer [or service provider](#) obtained their registration permit [or certification](#).



State of Idaho
Department Of Environmental Quality
Technical Guidance Committee

Appendix E

1.6 Nonprofit Corporations Service Provider

Revision: March 20, 2015

~~Nonprofit corporations (entities) that manage large soil absorption systems, extended treatment, experimental systems, or any other complex system, which the Director deems a maintenance entity is required to manage, must guarantee that they will be responsible for the system and be available to provide operation and maintenance. This section provides guidance for a nonprofit corporation to meet this requirement. If an O&M entity is set up to provide operation and maintenance for ETPSs (IDAPA 58.01.03.009.02 and 58.01.03.009.03) or large soil absorption systems (IDAPA 58.01.03.013.07.e) according to the following minimum elements, the maintenance entity will likely be approved by the Director. These minimum elements provide assurance that operation and maintenance, as conditioned for these particular systems by the Director, occurs. Other O&M entity elements may be acceptable on a case-by-case basis depending upon the maintenance needs of an entity. Elements not included within this guidance section will be evaluated on a case-by-case basis. A service provider is any person, corporation, or firm engaged in the business of providing operations maintenance, and monitoring (OMM) of specific (listed below) complex alternative systems in the State of Idaho (IDAPA 58.10.03.003.30).~~

Complex Alternative Systems requiring Service Providers for OMM:

- Extended Treatment Package Systems
- Recirculating Gravel Filters

1.6.1 Required Nonprofit Incorporation Elements Extended Treatment Package System (ETPS) OMM

Beginning July 1, 2017, real property owners served by an ETPS are no longer required to be members of a non-profit operation and maintenance entity. To meet the operation, maintenance and monitoring requirements of their ETPS, real property owners shall retain the services of a service provider approved by DEQ (IDAPA 58.01.03.006.10.b).

Real property owners with member agreements and easements recorded with their county as a condition of subsurface sewage disposal permit issuance, may seek to remove those recorded documents at their own expense.

~~The following elements must be included within the nonprofit entity's articles of incorporation or bylaws:~~

- ~~1. The nonprofit organization should be incorporated according to Idaho Code §30-3.~~
- ~~2. The articles of incorporation shall include a requirement that any changes to the entity's articles of incorporation or bylaws shall be approved by DEQ's Water Quality Division Administrator (Director) or designee per Idaho Code §30-3-99.~~

~~The Director shall provide the nonprofit entity approval in writing of any changes to the articles of incorporation or bylaws that are not in conflict with section 1.6 or 1.9 of the TGM.~~

- ~~3. Membership should be limited to property owners only.~~
- ~~4. Voting should be limited to one parcel/one full membership/one vote.~~
- ~~5. Voting rights should be restricted to members with improved property.~~
- ~~6. Voting rights should not be cancelled.~~

~~Exception is allowed in the event that an ETPS is disconnected and removed from the property as approved by the Director.~~

- ~~7. Purposes of the organization should be clearly defined in the articles of incorporation.~~
- ~~8. The nonprofit entity should hold an annual meeting of the membership.~~
- ~~9. Funds generated are to operate specific functions and should be restricted for use to the specific purpose. Those purposes should be defined in the bylaws or associated membership agreement.~~
- ~~10. Annual financial reports should be made available to the membership upon request by individual members and through the annual membership meeting.~~
- ~~11. Multiple purpose organization funds generated are to be separately maintained, and funds from one account should not be available for another account's use.~~
- ~~12. The nonprofit entity may own the system(s) it intends to maintain and must have an access easement in place.~~

~~Access easements for ETPSs should be executed through a membership agreement as outlined in section 1.6.3.~~

- ~~13. Membership (and shares) in the nonprofit entity must run with the land, and successive owners must acquire the preceding owner's membership or voting share(s).~~
- ~~14. The nonprofit entity should provide the purchaser and any new member with a copy of the articles of incorporation, bylaws, covenants, and contracts (i.e., membership agreement) with the entity.~~
- ~~15. There should be no provisions restricting ownership of improved property.~~
- ~~16. The nonprofit entity should be capable of raising revenue by setting and collecting user charges.~~
- ~~17. Board of director requirements:
 - ~~a. For ETPS nonprofit O&M entities, the board of directors should contain one permanent position required to be filled by a corporate officer, general partner, or owner of the manufacturer of the treatment technology.~~

~~The only exemption to this requirement shall be for cases where manufacturers are no longer in business. In this case, the existing board members and associated membership shall vote in a new board member to ensure that the minimum position requirement is fulfilled.~~
 - ~~b. The board of directors should include a minimum of three board member positions.~~~~
- ~~18. The board of directors should be able to raise revenue for emergency operation and maintenance of community owned systems without majority vote.~~

- ~~19. The nonprofit entity must be capable of suing and of being sued, maintain the capability to impose liens on those members (shareholders) who become delinquent in user charges, and suspend services, providing such suspension will not jeopardize other members' use.~~
- ~~20. The nonprofit entity should provide an O&M manual that shall be approved by the Director.~~
- ~~21. The O&M manual should be provided to all new members for ETPSs and shall include the monitoring requirements as outlined in section 1.9.2.~~
- ~~22. Conditions for dissolution of the nonprofit entity should be specified. Dissolution should be limited to connection to a municipal wastewater treatment facility or merger with another approved nonprofit entity with management capability.~~
- ~~23. Except as provided in item 22 above, the nonprofit entity should not be able to vote itself out of existence.~~
- ~~24. For nonprofit entities, a third party (i.e., maintenance entity or service provider) should be identified to execute the specified operations and maintenance functions.~~
- ~~25. Service providers for nonprofit entities overseeing ETPSs should be certified in writing by the manufacturer for the servicing of their technology. The certification should be provided to the Director prior to approval.~~
- ~~26. The nonprofit entity should be able to plan and control how and at what time additional service functions will be extended or added.~~
- ~~27. The articles of incorporation and/or bylaws should provide for proxy voting.~~
- ~~28. Proxies should not be binding on new purchasers.~~
- ~~29. For community systems, the project developer should be required to contribute to the operation and maintenance until the nonprofit entity is self-sustaining. Consider either a specified period of time or when a specified number of lots have been sold.~~
- ~~30. The nonprofit entity should have a defined service area boundary.~~

1.6.1 Notification Requirements

The nonprofit entity shall notify the Director for any of the following reasons:

- ~~1. Content changes to the articles of incorporation, bylaws, or membership agreements that occur after initial approval by the Director shall be provided to the Director for review and approval prior to implementation. Changes that conflict with any portion of section 1.6.1 should not be approved.~~
- ~~2. Changes occur to the board of directors.~~
- ~~3. Service provider(s) are changed.~~
- ~~4. Sampling plan changes or adjustments are necessary.~~

1.6.2 Membership Agreements for Extended Treatment Package Systems

The membership agreement is separate from the articles of incorporation and bylaws for the nonprofit entity but is required for membership in the nonprofit entity and to ensure that proper operation and maintenance will be performed (IDAPA 58.01.03.009.03). Membership agreements should contain the following elements:

1. ~~The title of the membership agreement should include the words lien notice, access easement, member agreement, and the name of the nonprofit entity.~~
2. ~~The contact information for the nonprofit entity should be list a mailing address and phone number.~~
3. ~~A statement that annual fees will be assessed for services rendered by the nonprofit entity should be included.~~
4. ~~The agreement should describe the exact services that are and are not included within the agreement (e.g., service, maintenance, annual testing, repairs, and annual report submission).~~
5. ~~The access easement language should be included.~~
6. ~~A description of the lien process should be included.~~
7. ~~The legal description of the property should be included.~~
8. ~~A requirement that upon each sale of the property the buyer will sign an acknowledgement that they have reviewed the membership agreement and its requirements are understood.~~
9. ~~The agreement should state that the current property owner must disclose the terms of the membership agreement prior to any sales transaction of the property.~~

1.6.3 ~~Sampling Plans for Extended Treatment Package Systems~~

~~Nonprofit entities formed for the purpose of maintaining, servicing, and testing ETPSs shall develop a sampling plan for effluent testing (IDAPA 58.01.03.009.03). Sampling plans should contain the following elements:~~

1. ~~Signed letter from the manufacturer of the treatment technology certifying that the sampling method provided is acceptable for their technology.~~
2. ~~Sampling location and design that is located after the secondary treatment unit for both gravity and pressurized systems.~~
3. ~~Sample collection, preservation, and transportation techniques and methods that conform to the latest edition of *Standard Methods for the Examination of Water and Wastewater* (Rice et al. 2012).~~
4. ~~Method to collect all samples from a free flowing effluent pipe. Hose or portable water sources may be used to induce flowing conditions but should be used as a last resort when access to a water source within the home is not available. If a hose or portable water source is used to induce a flowing condition, the water source should discharge into the cleanout between the structure and primary septic tank. Cross-connection and backflow prevention should be considered if hoses are used to induce flow.~~
5. ~~Sample point cleaning and flushing procedures prior to sample collection.~~
6. ~~Any necessary sampling device calibration techniques, equipment, and reagents.~~
7. ~~Effluent field sample indicators that may be recommended for evaluation prior to grab sample collection. These indicators should provide indication that the treatment unit is operation properly.~~



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Technical Guidance Committee

Appendix F

1.9 Managed Operation, Maintenance, and Monitoring

Revision: [August 18, 2016](#)

Operation, maintenance, and monitoring (OMM) may be required for any system specified by the Director. The Director may specify OMM as a condition of a product's design approval (IDAPA 58.01.03.009.03) or as a condition of issuing a subsurface sewage disposal permit (IDAPA 58.01.03.005.14) to ensure protection of public health and the environment. This section lists the Director-specified OMM requirements. Managed OMM is performed by ~~an~~ [O&M entity \(section 1.6\)](#) or a certified service provider ([section 1.6](#)).

1.9.1 Managed Operation and Maintenance

Operation and maintenance refers to direct access to a subsurface sewage disposal system to provide planned or reactive activities that are necessary to ensure efficiency, effectiveness, and sustainability of the system. Managed operation and maintenance is required for systems the Director has determined need professional oversight to ensure the systems operate according to the rules (IDAPA 58.01.03) and system-specific recommendations provided by the TGC (IDAPA 58.01.03.004.10). When managed operation and maintenance is specified for a system, the following requirements shall be met (IDAPA 58.01.03.005.14 and 58.01.03.009.03):

1. ~~Annual m~~Maintenance shall be performed on the system as described in the manufacturer's or design engineer's O&M manual submitted under sections 1.4, 1.6, or the specific alternative system's guidance section.
 - a. Manufactured systems that are incorporated into an engineered design shall also follow the minimum O&M requirements set by the design engineer.
 - b. Additional maintenance not specified in an O&M manual may be required to ensure the system functions properly.
2. Records for each O&M visit shall be kept and should include the following information for the primary maintenance visit:
 - a. Date and time.
 - b. Observation for objectionable odors.
 - c. Observation for surfacing of effluent from the system or drainfield.
 - d. Notation as to whether the system was pumped since the last O&M visit including the portions of the system pumped, pumping date, and volume.
 - e. Sludge depth and scum layer thickness in the system's tanks and/or treatment unit.
 - f. If responding to an alarm event, provide the cause of the alarm and any maintenance necessary to address the alarm situation.
 - g. Field testing results for any system effluent quality indicators included in the system's approved sampling plan (if required) or as recommended in section 1.9.2(2).
 - h. Record of any cleaning and lubrication.
 - i. Notation of any adjustments to control settings or equipment.
 - j. Test results for pumps, switches, alarms, and blowers.
 - k. Notation of any equipment or component failures.

- l. Equipment or component replacement including the reason for replacement.
- m. Recommendations for future service or maintenance and the reason for the recommendations.
- n. Any maintenance occurring after the primary maintenance visit should only record and address the reason for the visit and the associated activities that occur.

1.9.2 Managed Monitoring

Monitoring refers to the requirement for effluent sampling and analysis of wastewater discharged from a treatment system prior to the effluent entering the drainfield. Managed monitoring is required for systems that the Director has determined need field verification of the system's performance to ensure effluent quality limits are being met. When managed monitoring is specified for a system, the following requirements shall be met (IDAPA 58.01.03.005.14 and 58.01.03.009.03):

1. Effluent quality shall be monitored annually.
2. Annual monitoring included in the annual report must occur within the reporting period (Figure 1-1).
3. Effluent monitoring may be done for a group of treatment systems from a common dosing chamber resulting in the sample from the common dosing chamber being applied to all of the associated systems if:
 - a. ~~Annual~~ Operation and maintenance is performed on an annual basis with a frequency outlined in the manufacturer's O&M manual and documented as described in section 1.9.1 for each individual treatment system, and O&M records are submitted for each individual treatment system as described in section 1.9.3.
 - b. All of the treatment systems connected to the common dosing chamber are from the same manufacturer or are the same engineered alternative treatment system design.
 - 1) If there are multiple manufacturers' units or multiple engineered alternative treatment system designs connected to the common dosing chamber, then each system must be monitored individually.
 - 2) If there are multiple common dosing chambers discharging to a single drainfield, then each common dosing chamber must be monitored.
 - 3) If there are any individual manufacturers' units or engineered alternative treatment system designs discharging to the same system independently of a common dosing chamber, then those individual units must also be monitored.
 - c. If the effluent sample from the common dosing chamber does not meet any one of the required effluent constituent levels for the system, then each individual treatment system connected to the common dosing chamber must be sampled independently for the failing constituent to determine which individual systems do not meet the effluent monitoring requirements.
 - 1) Individual systems that do not meet the effluent constituent levels upon individual sampling must follow the O&M and retesting requirements described in item 10 below.
 - 2) Individual systems that do meet the effluent constituent levels upon individual sampling do not need to continue with the O&M and retesting requirements.

4. DEQ recommends that before collecting effluent samples from a treatment system for laboratory analysis that effluent quality indicators be field tested as described in the system's approved sampling plan. Recommendations included in this section are recommendations only and should be verified with the treatment technology manufacturer or design engineer as acceptable with their field sampling plan and as suitable effluent quality indicators. Field testing is recommended to include, but may not be limited to the following:
 - a. Visual examination for wastewater color, odor, and effluent solids.
 - b. Constituents shown in Table 1-1.

Table 1-1. Recommended field testing constituents for effluent quality indication.

Constituent	Acceptable Range
pH	6 to 9
Dissolved oxygen	≥2 mg/L
Turbidity	≤40 NTU

Notes: milligram per liter (mg/L); nephelometric turbidity unit (NTU)

5. Monitoring samples provided to a laboratory will analytically quantify that the treatment system is operating in compliance if samples do not exceed:
 - a. 40 mg/L (40 parts per million [ppm]) for CBOD-5
 - b. 45 mg/L (45 ppm) for TSS
 - c. Permit-specific levels stipulated on the installation permit for nitrogen as described in item 6.
 - d. Permit-specific levels stipulated on the installation permit for other constituents of concern that may be determined on a case-by-case basis.
 - e. Effluent specific constituents that must be monitored for a treatment system may be specified in the treatment system-specific guidance in section [Error! Reference source not found.4](#) or determined on a case-by-case basis.
6. For those systems installed in areas of concern, including nitrogen sensitive areas, or are used to fulfill NP evaluation results and requirements, the following total nitrogen related constituents may be monitored to determine total nitrogen concentration:
 - a. Total Kjeldahl nitrogen (TKN)
 - b. Nitrate-nitrite nitrogen ($\text{NO}_3 + \text{NO}_2\text{-N}$)
 - c. Results for total nitrogen ($\text{TN} = \text{TKN} + [\text{NO}_3 + \text{NO}_2\text{-N}]$)
7. Results for monitoring samples that exceed the stipulated levels on the installation permit indicate the treatment system is not achieving the required reduction levels.
8. Monitoring samples will be collected, stored, transported, and analyzed according to the latest version of *Standard Methods for the Examination of Water and Wastewater* (Rice et al. 2012) and other acceptable procedures:
 - a. Each sample will have a chain-of-custody form, identifying, at a minimum, the sample's source (street address or installation permit number), date and time of collection, and the person who extracted the sample.

- b. Chain-of-custody form should also specify the laboratory analyses to be performed on the sample.
 - c. Sample storage and transport will take place in appropriate containers under appropriate temperature control.
9. Sample analysis will be performed by a laboratory capable of analyzing wastewater according to the acceptable standards identified in Table 1-2, and the monitoring results will be submitted as part of the annual report to the local health district.
- a. Effluent analysis shall be performed using the standards in Table 1-2 from the *Standard Methods for the Examination of Water and Wastewater* (Rice et al. 2012) or the equivalent standards from EPA.
 - b. Annual reports submitted with laboratory analysis results differing from these standard methods will be rejected.

Table 1-2. Standard methods required for the analysis of ETPS effluent in annual testing.

Analysis	Standard Method Number	EPA Method Equivalent to Standard Method
Total suspended solids (TSS)	SM 2540 D	—
Carbonaceous biological oxygen demand (CBOD ₅) ^a	SM 5210 B	—
Total Kjeldahl nitrogen (TKN)	SM 4500-Norg B	351.2
Nitrate-nitrite nitrogen (NO ₃ + NO ₂ -N)	SM 4500-NO ₃ ⁻ F nitrate	353.2

a. Person requesting the analysis from the laboratory must specify the CBOD₅ on the chain-of-custody form.

10. Treatment systems failing to achieve the required effluent constituent levels shall require the following:
- a. Additional operation and maintenance within 15 days of the failed sample results as determined by the date provided on the laboratory form.
 If additional operation and maintenance or component replacement is necessary as determined from this service, then the reason, maintenance necessary, and dates must be provided as part of the service record.
 - b. Additional sampling to demonstrate the operation and maintenance performed successfully restored the treatment system to proper operation.
 - c. Sample extraction and analysis must occur within 30 days after servicing the system (as determined in item 10.a above).
 The 30-day time frame for sample extraction will begin based on the last documented O&M visit required under item 10.a above.
 - d. A maximum of three sampling events, within 90 days (as determined from the last documented O&M visit from item 10.a above), will be allowed to return the system to proper operation. Failure to correct the system within this time frame will result in the system being classified as a failing system (section 1.9.4.1, Figure 1-2).
 - e. If an annual report, as described in section 1.9.3, for a system identifies that an effluent sample fails to meet the limits stipulated on the installation permit, and the required resampling of the system did not occur, then the regulatory authority will issue the [Failure to Perform Operation, Maintenance, and Resampling of Your](#)

Extended Treatment Package System letter provided in the DEQ program instruction “Extended Treatment Package System Program Letters.” ~~“Failure to Resample” letter provided in the DEQ program instruction “Extended Treatment Package System Program Letters.”~~

If resampling as described in this section does not occur by the date provided in the Failure to Resample letter, then the actions will be considered a refusal of service as described in section 1.9.5, and the enforcement procedures provided in section 1.9.5 shall be followed by the regulatory authority.

Comment [DP1]: This Instruction needs to be updated.

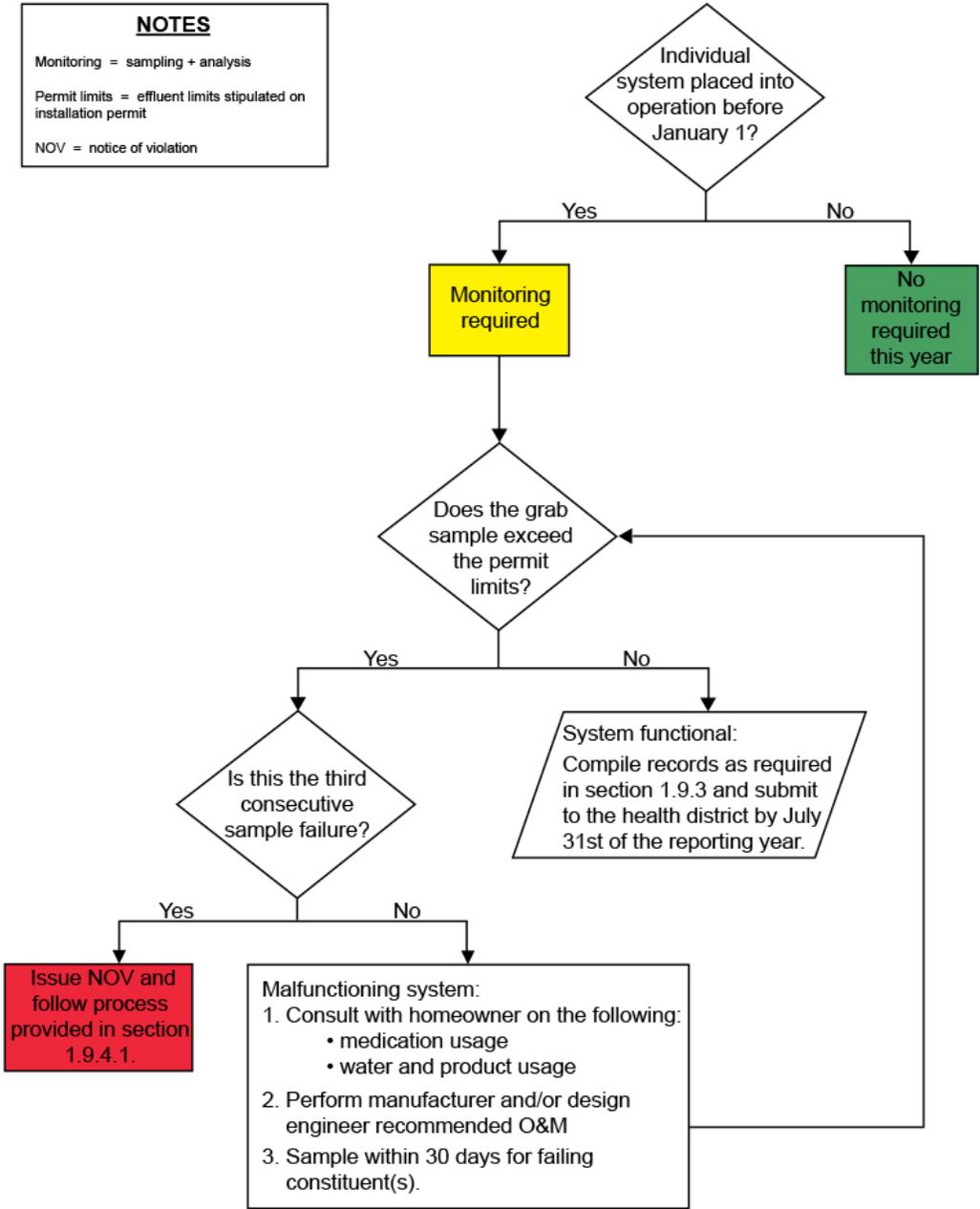


Figure Error! No text of specified style in document.-1. Individual treatment system sampling process.

1.9.3 Annual Reporting of Managed Operation, Maintenance, and Monitoring

The annual reporting period is from July 1 of the preceding year through June 30 of the reporting year. Annual reporting is the responsibility of the property owner, and DEQ recommends that property owners have their ~~O&M entity or~~ service provider compile and submit their annual report. The property owner responsible for the treatment system under IDAPA 58.01.03 shall ensure the following annual reporting requirements are met:

1. Annual report for each property owner shall include these items:
 - a. A copy of the maintenance records for the reporting period as required under section 1.9.1.
 - b. A copy of all laboratory records for effluent sampling as described in section 1.9.2 (if required).
 - c. A copy of each chain-of-custody form associated with each effluent sample as described in section 1.9.2 (if required).
2. If a ~~n O&M entity or~~ service provider is fulfilling annual reporting requirements for their property owners, then DEQ recommends that the following additional information be included within the annual report:
 - a. A current list of all ~~O&M entity or~~ service provider contracted property owners within the health district to which the annual report was submitted.
 - b. The property owner list should clearly identify which property owners the ~~O&M entity or~~ service provider is contracted with for annual reporting requirements and the status of each property owner in regards to completing the annual reporting requirements.
 - c. If annual reporting requirements are not complete for any property owner who the ~~O&M entity or~~ service provider is responsible for providing the annual report, then an explanation should be included with that property owner's records within the annual report.
3. Annual report exemptions
 - a. A property owner may be exempt from effluent testing based upon extreme medical conditions.

Annual operation and maintenance on the property owner's treatment system shall not be exempt due to medical conditions, and record of annual operation and maintenance shall still be submitted with the member's annual report.
 - b. An ~~O&M entity or~~ service provider contracted by a property owner to fulfill annual reporting requirements may be exempt from reporting annual OMM for an individual property owner if that owner's activities fall within the guidelines of section 1.9.5.

The ~~O&M entity or~~ service provider should still report the activities described in section 1.9.5 for each property owner exempt from annual reporting based on the guidelines in section 1.9.5.
4. Annual reporting process
 - a. The annual report shall be submitted to the local health district by the property owner, ~~O&M entity,~~ or service provider on behalf of the property owner no later than July 31 of each year for the preceding 12-month period.

The annual report shall be submitted to the local health district that issued the subsurface sewage disposal permit for the treatment system.

- b. The local health district shall provide whoever submitted the annual report a written response within 45 days of receipt of the report detailing compliance or noncompliance with septic permit requirements.
 - 1) The ~~O&M entity~~ or service provider should inform individual property owners of their compliance status.
 - 2) All correspondence from the health district regarding a noncompliant annual report shall be copied to DEQ.
5. Delinquent annual reports
 - a. If the property owner, ~~O&M entity~~, or service provider contracted to submit the property owner's annual report does not submit the annual report by July 31 of the reporting year, then the local health district shall send the property owner, ~~O&M entity~~, or service provider contracted to submit the property owner's annual report, a reminder letter providing a secondary deadline of August 31 of the reporting year for the annual report submission. The reminder letter shall detail the report requirements and that failure to submit the annual report by the secondary deadline will result in the health district forwarding a notice of nonreport to DEQ. DEQ may seek any remedy available under IDAPA 58.01.03 including, without limitation, requiring the property owner to replace the treatment system with another system, as outlined in section 1.9.4.
 - b. All correspondence from the health district regarding delinquent annual reports shall be copied to DEQ.

1.9.4 Treatment System Failure, Disapproval, and Reinstatement

Commercially manufactured and alternative wastewater treatment systems must be approved by DEQ (IDAPA 58.01.03.004.10 and 58.01.03.009.01). Installation of a commercially manufactured or alternative wastewater treatment system requires a subsurface sewage disposal permit pursuant to IDAPA 58.01.03.005. As part of the alternative system approvals for commercially manufactured or alternative wastewater treatment systems, DEQ defines the specific circumstances under which the treatment systems may be installed, used, operated, and maintained within the alternative treatment system guidance (IDAPA 58.01.03.009.03 and 58.01.03.005.14).

If a commercially manufactured or alternative wastewater treatment system product is not shown to be installed, used, operated, or maintained according to DEQ requirements, then DEQ may pursue enforcement against a property owner and seek those remedies available under IDAPA 58.01.03. Enforcement and remedies against the property owner may include a determination that the treatment system has failed and the requirement that the property owner replace the treatment system with a different system authorized by DEQ. Replacement may include installing another commercially manufactured wastewater treatment system approved by DEQ, or engineering and installing another alternative system that is capable of meeting the requirements of the property owner's subsurface sewage disposal permit. If a commercially manufactured or alternative wastewater treatment system is not shown to comply or consistently function in compliance with IDAPA 58.01.03 and specified OMM requirements, DEQ may

disapprove the commercially manufactured wastewater treatment product or classify the alternative wastewater treatment system as a failing system for failure to meet the intent of the rules related to wastewater treatment (IDAPA 58.01.03.003.13.a). Reasons for DEQ enforcement, which may include seeking remedies against a property owner or disapproval/failure classification of a commercially manufactured or alternative wastewater treatment product as outlined herein, include, but are not limited to, the following:

1. Failure to submit an annual report by the secondary deadline of August 31.
2. ~~Annual reports for a particular commercially manufactured wastewater treatment product or alternative treatment system identify a malfunctioning system rate of 10% or more.~~

Malfunctioning systems are defined as any system that fails to receive annual operation and maintenance or exceeds the effluent reduction levels for any constituent specified in the subsurface sewage disposal permit (i.e., TSS, CBOD₅, or TN).

3. Property owner's commercially manufactured wastewater treatment product or alternative treatment system has been determined to be a failing system. Failing commercially manufactured wastewater treatment systems are defined in section 1.9.2.

1.9.4.1 Failing System Enforcements

The regulatory authority shall follow the procedures below after a wastewater treatment system has been determined to be a failing system (Figure 1-2):

1. When the regulatory authority is notified that a system is failing, a notice of violation (NOV) shall be issued to the property owner. The property owner shall have the opportunity to hold a compliance conference with the regulatory authority to enter into a consent order.
2. Consent orders should allow a property owner a 12-month period to return the system to proper operation or replace the failing system.
 - a. Over this 12-month period, the property owner should have their ~~O&M entity or~~ service provider service the wastewater treatment system at least monthly.
 - b. Monthly effluent samples should be taken by the ~~O&M entity or~~ service provider until the wastewater treatment system passes 3 consecutive monthly samples. Three consecutive passing monthly samples taken 1 month apart would be cause for the regulatory authority to terminate the consent order and NOV, and reclassify the system as compliant.
 - c. OMM records as described in sections 1.9.1 and 1.9.2 should be submitted to the regulatory authority on a monthly basis as part of the consent order.
 - d. If the commercially manufactured wastewater treatment system cannot produce 3 consecutive monthly samples over the 12-month period, then the system may be replaced with another alternative system that meets the effluent quality requirements based upon applicable site conditions.
 - e. Replacement systems must meet the treatment requirements of the original septic permit. Appropriate replacement systems will be determined on a case-by-case basis.

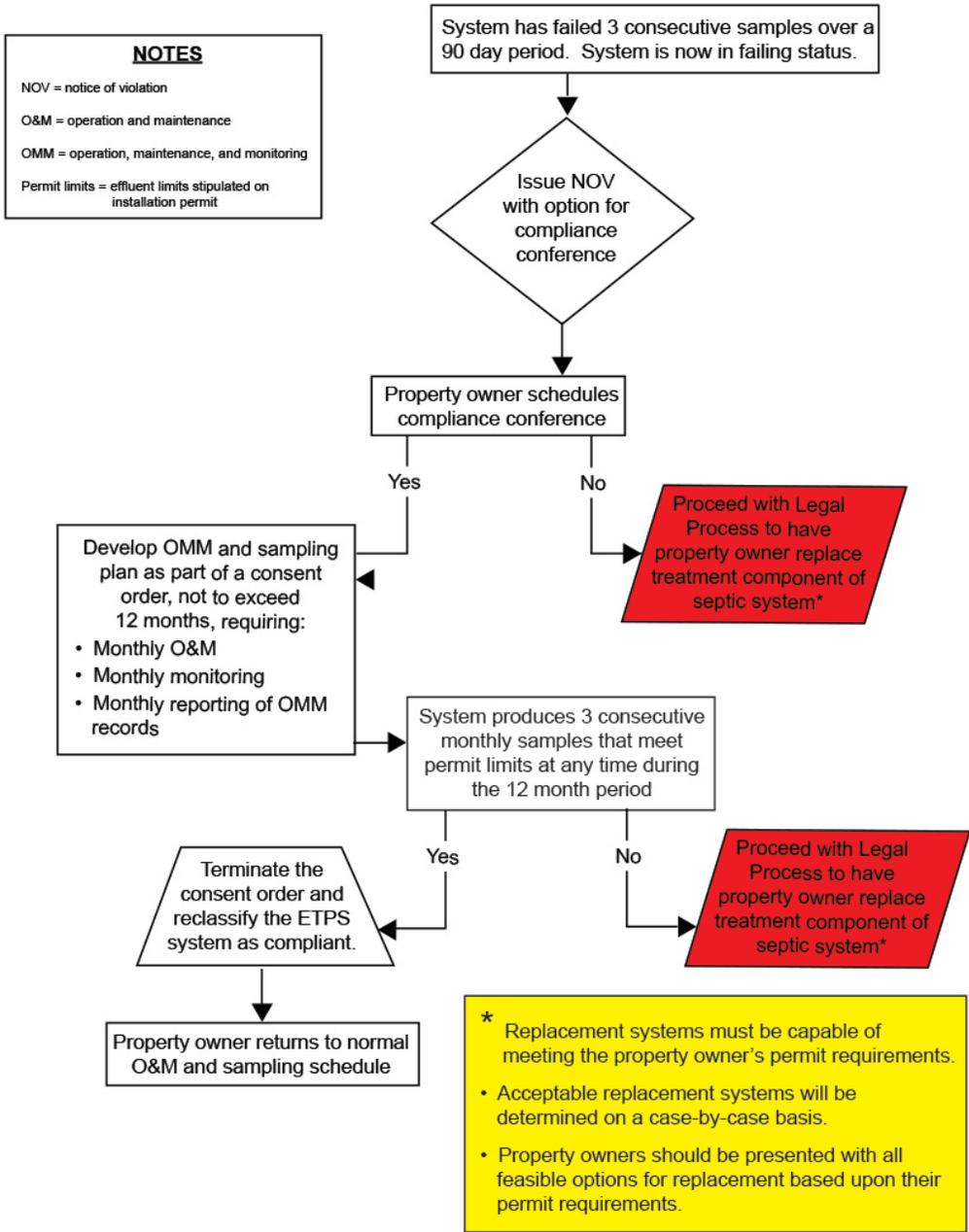


Figure Error! No text of specified style in document.-2. Failing wastewater treatment system enforcement flowchart.

1.9.4.2 Commercially Manufactured Wastewater Treatment System Disapproval

In addition to determining a particular system is a failing system as described in section 1.9.4.1, if DEQ determines that a commercially manufactured wastewater treatment system cannot consistently function in compliance with IDAPA 58.01.03, then DEQ may disapprove the product (IDAPA 58.01.03.009.04). A written notice of DEQ's intent to disapprove the commercially manufactured wastewater treatment system will be provided following Idaho Code §67-52 and sent to the wastewater treatment system manufacturer, ~~O&M entity or service provider~~, and health districts. The commercially manufactured wastewater treatment system manufacturer will be allowed an opportunity to respond before product disapproval. Upon disapproval of a manufacturer's wastewater treatment system product line, the health districts shall not issue a septic permit on new applications for the commercially manufactured wastewater treatment system product line from the disapproved manufacturer. OMM requirements for existing installations of the commercially manufactured wastewater treatment system product line will not be affected by the product disapproval ~~(Figure 1-3)~~ per section 1.4.2.2.3.

1.9.4.3 Commercially Manufactured Wastewater Treatment System Reinstatement

Upon commercially manufactured wastewater treatment system product disapproval, ~~DEQ will provide the manufacturer the opportunity to enter into a corrective action plan (CAP) for product reinstatement. The CAP should establish the time frame to return the noncomplying or failing systems to proper operation. The product disapproval will remain in effect until the malfunctioning and failing system rate for the manufacturer's technology is below 10%.~~ manufacturers will resubmit for Provisional Approval per section 1.4.2.2.1.

1.9.5 Property Owner ~~Refusal of~~ Operation, Maintenance, or Monitoring Requirements

Individual property owners are responsible for ensuring ~~their that an DEQ approved~~ approved O&M entity or service provider ~~can meet the performs~~ annual OMM requirements for their wastewater treatment system. Failure of an individual property owner to ~~permit the O&M entity or service provider from carrying out~~ have contracted with a service provider to perform the required OMM services is considered a violation of IDAPA 58.01.03.012.01. Actions engaged in by a property owner ~~toward the O&M entity or service provider~~ that may be considered a ~~refusal of service action~~ violation of rules by a property owner, include, but are not limited to, the following:

1. Refusal to ~~allow annual operation, maintenance, or monitoring (e.g., refusal to pay annual dues preventing the financial capability of service or denial of property access).~~ contract with a DEQ approved service provider to perform annual OMM services.
2. Refusal to maintain the wastewater treatment system in operating condition (e.g., refusal to replace broken components or refusal to provide electricity to the unit).
3. ~~If the refusal of service continues through the annual reporting period, then the O&M entity or service provider should substitute and submit the following documents in the annual report for property owners refusing service that the O&M is contracted with:~~

- a. ~~Copies of all correspondence and associated certified mail receipts documenting the property owner's receipt of the correspondence regarding the refusal of service. Refusal of service by a property owner through nonpayment should include documentation of a lien being placed on the individual's property.~~
- b. ~~If the documentation is not included within the annual report, there will be insufficient documentation of the property owner's refusal to allow OMM, and therefore, the lack of OMM may count against the malfunctioning rate for the wastewater treatment system product. Failure to submit or have their contracted service provider submit the annual report.~~

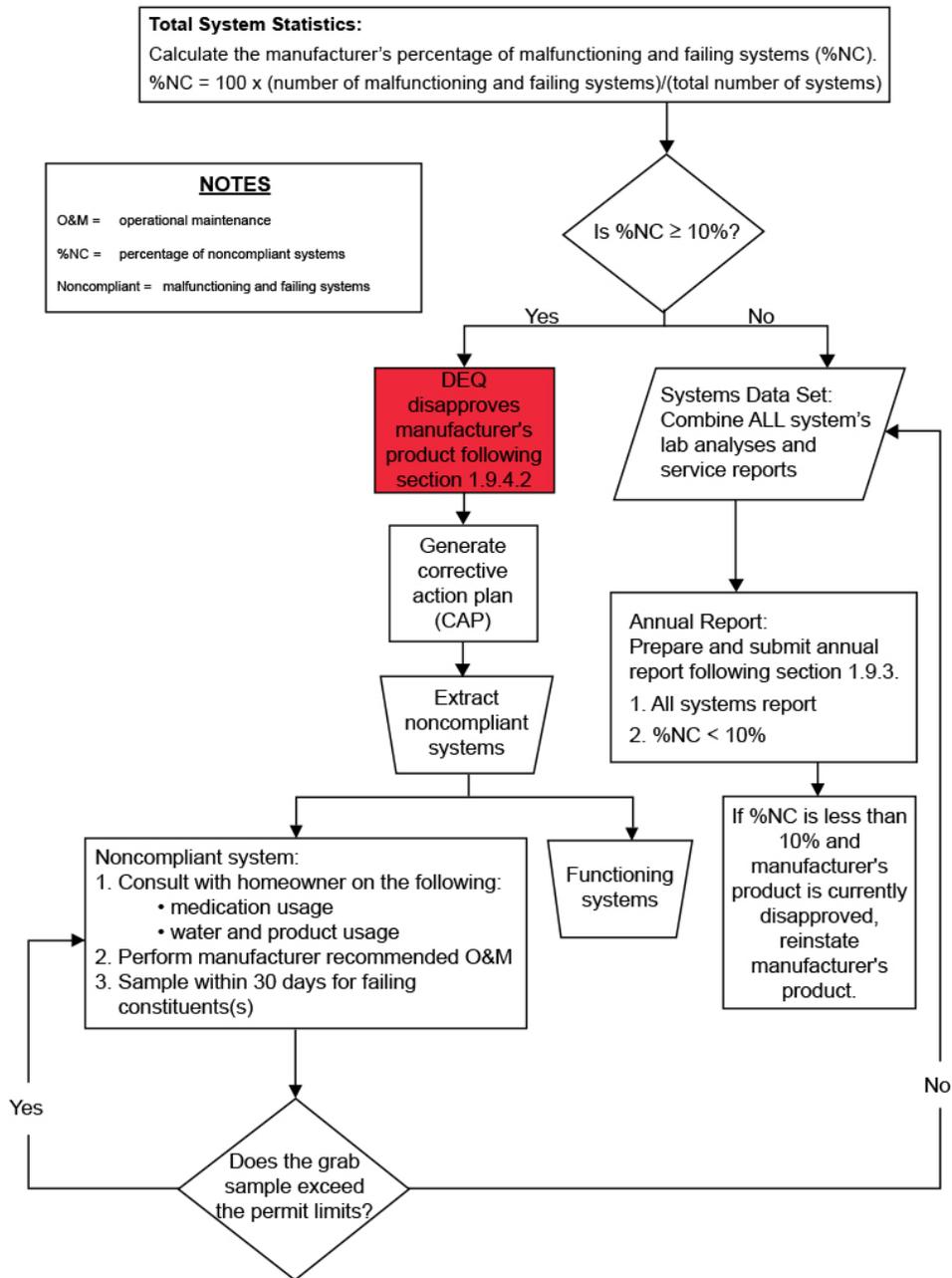


Figure 1-3. ETPS product disapproval process based upon annual reports.

1.9.5.1 Refusal of Service-Failure to Perform Proper Required OMM and Reporting Enforcement Procedures

Upon receipt of an annual report showing that failure of an individual property owner to have has refused to allow maintenance and/or monitoring as described in section 1.9.5, the following guidelines apply:

1. The regulatory authority shall issue Letter ~~1-B~~ with the associated enclosure provided in the DEQ program instruction, "Extended Treatment Package System Education and Enforcement Letters."
 - a. Letter ~~1-B~~ shall be sent to the property owner by certified mail and copied to the associated ~~O&M entity or~~ service provider.
 - b. The property owner is responsible for working with the regulatory authority and the ~~O&M entity or~~ service provider to address their delinquent responsibilities. The ~~O&M entity or~~ service provider should contact the regulatory authority and associated property owner 30 days after receiving Letter 1 to inform the regulatory authority of the property owner's voluntary compliance status.
2. If the property owner fails to voluntarily comply with the 30-day time frame, then the regulatory authority shall issue Letter ~~2-C~~ provided in the DEQ program directive, "Extended Treatment Package System Education and Enforcement Letters."
 - a. Letter 2 shall be sent to the property owner by certified mail and copied to the associated ~~O&M entity or~~ service provider.
 - b. The property owner is responsible for working with the regulatory authority and their ~~O&M entity or~~ service provider to address their delinquent responsibilities. The ~~O&M entity or~~ service provider should contact the regulatory authority and associated property owner by the voluntary compliance date provided in Letter 2 to inform the regulatory authority of the property owner's voluntary compliance status.
3. If the property owner fails to voluntarily comply by the date provided in Letter ~~2C~~, then the regulatory authority may ~~issue an NOV to the property owners~~ submit an Enforcement Referral Memorandum to DEQ to ensure compliance with the property owner's subsurface sewage disposal permit requirements.

Comment [DP2]: This needs to be updated.

1.9.6 Service Provider Transition

In recognition of the need to create a more effective and useful means of approving and overseeing service providers and expanded choices of service for private property owners, the Idaho State Legislature approved Docket No. 58-0103-1501. Effective July 1, 2017 ETPSs will be operated and maintained by approved service providers (section 1.6).

The first ETPS annual reports under the service provider model shall be submitted by July 31, 2018. This provides a one year transition for property owners to contract with an approved service provider, have proper operations and maintenance conducted on their units and for completed annual reports to be submitted. DEQ and the Health Districts will work together to inform property owners with installed ETPS of the changes in OMM responsibilities.

1.9.6.1 Transition Sampling and Maintenance Requirements

General approved ETPS must be maintained by an approved service provider, sampled if permitted for Nitrogen less than 27 mg/l and have annual reports submitted per section 1.4.2.2.2.

ETPS with Provisional approval permitted before July 1, 2016 must be maintained by an approved service provider (with or without the manufacturer's endorsement) and have an annual report submitted.

For ETPS with Provisional approval permitted after July 1, 2016 the maintenance, sampling and reporting is the responsibility of the system manufacturer per section 1.4.2.2.1.

Disapproved ETPS must be maintained by an approved service provider (manufacturer's endorsement not required) and have an annual report submitted per section 1.4.2.2.3.

1.9.6.2 Transition Enforcement Protocol

A transitional enforcement protocol will be utilized for ETPS installations required to submit annual reports on July 31, 2018 through July 31, 2020. After education and outreach efforts by DEQ and the Health Districts, those property owners who refuse service, fail to submit annual reports or have general approved systems permitted for Nitrogen reduction less than 27 mg/l that are not meeting permit requirements, will be referred by the Health Districts to DEQ for enforcement.

During this transition period, all letters required by the DEQ Subsurface Sewage Disposal EPGTPS Program Instruction will be produced and mailed by DEQ.

Only after systems referred to DEQ for enforcement have been brought back into full regulatory compliance will the Health Districts be responsible for monitoring and future compliance.



State of Idaho
Department Of Environmental Quality
Technical Guidance Committee

Appendix G

4.8 Extended Treatment Package System

Revision: ~~August 18, 2016~~ March 13, 2017

Installer registration permit: Complex

Licensed professional engineer required: No

4.8.1 Description

Manufactured and *packaged* mechanical treatment devices that provide additional biological treatment to septic tank effluent. Such units may use extended aeration, contact stabilization, rotating biological contact, trickling filters, or other approved methods to achieve enhanced treatment after primary clarification occurs in an appropriately sized septic tank. These systems provide secondary wastewater treatment capable of yielding high-quality effluent suitable for discharge in environmentally sensitive areas.

Property owners that install an ETPS unit must choose an O&M entity Service Provider capable of meeting their OMM requirements. Verification of the chosen O&M entity Service Provider shall be submitted with the subsurface sewage disposal permit application ensuring that the OMM (effluent quality testing) will occur (IDAPA 58.01.03.005.04.k). Property owners that do not want to meet the OMM requirements must meet the requirements of section 4.8.2(2) or choose another alternative system that will meet the conditions required for subsurface sewage disposal permit issuance.

4.8.2 Approval Conditions

1. A ~~maintenance entity Service Provider~~ will be available to ~~provide managed~~provide managed system OMM as described in section 1.9.1 and 1.9.2 (IDAPA 58.01.03.005.14). The OMM is to be performed by an approved O&M entity Service Provider (IDAPA 58.01.~~303.009.03006.06~~). Approval of the O&M entity Service Provider will be made by the Director before permit issuance. Approvable entities may include, but are not limited to, the following:
 - a. Municipal wastewater treatment departments
 - b. Water or sewer districts
 - ~~c. Nonprofit corporations (section 1.6)~~
 - c. Licensed cComplex installer with a service provider license certification

~~An O&M entity membership agreement and an accompanying general access easement service provider contract~~ should be entered into between the property owner and the O&M entity Service Provider, as a necessary condition for issuing an installation permit (IDAPA 58.01.03.005.04.k).

~~This agreement and the easement will be recorded with the county as a condition for issuing an installation permit.~~

2. ETPSs may be used for properties without an approved O&M entity Service Provider **only under all of the following conditions:**

- a. The site is acceptable for a standard system. All separation distances from ground water, surface water, and limiting layers shall be met.
 - b. Enough land is available, and suitable, for two full-size drainfields. One complete full-size drainfield shall be installed.
3. Final effluent disposal through subsurface discharge will meet the following criteria:
 - a. If an 85% reduction or better in CBOD₅ and TSS can be achieved, the effluent may be discharged to a drainfield satisfying Section 4.21.5 “Drainfield Trenches” application rate criteria and vertical setback requirements.
 - 1) Otherwise, the effluent must be discharged to a standard drainfield, sized as directed in IDAPA 58.01.03.008 (section 7.1), and meet the required effective soil depth for standard drainfields as directed in IDAPA 58.01.03.008.02.
 - 2) Additional drainfield-sizing reduction granted for use of gravelless trench products is not allowed.
 - b. The 85% reduction will be accepted as being met if the effluent exhibits a quantitative value obtained from laboratory analysis not to exceed 40 mg/L (40 ppm) CBOD₅ and 45 mg/L (45 ppm) TSS.
 - c. TN reduction may be required for ETPS units located in an area of concern as determined through an NP evaluation. Permit-specific TN reduction levels will be determined through the NP evaluation. Results for TN are determined through the addition of TKN and nitrate-nitrite nitrogen ($TN = TKN + [NO_3 + NO_2 - N]$). TN reduction will be accepted as being met if the effluent exhibits a quantitative value obtained from laboratory analysis not to exceed the TN level stipulated on the subsurface sewage disposal permit.
 4. Annual effluent monitoring and reporting is required for all ETPS units that discharge to a reduced size drainfield, to a drainfield with a reduced separation distance to limiting layers, and/or to a drainfield located in an environmentally sensitive area (area of concern). Monitoring shall meet the requirements of section 1.9.2. Reporting shall meet the requirements of section 1.9.3.
 5. The ETPS will be preceded by an appropriately sized septic tank.
 - a. The septic tank may be either a separate septic tank, a volume integral with the system’s package, or a combination of internal clarifier volume coupled with an external tank.
 - b. The septic tank shall provide the minimum tank capacity for residential facilities as specified in IDAPA 58.01.03.007.07.a, or for nonresidential facilities, a minimum of 2 days of hydraulic residence time (HRT) as stipulated in IDAPA 58.01.03.007.07.b.
 - c. Timed dosing from the clarifier to the aerobic treatment unit is preferred and highly recommended to maintain a constant source of nutrients for the system’s aerobic microbes.

4.8.3 ETPS Unit Design

Procedures relating to design are required by IDAPA 53.01.03 (section 7.1) or may be required as permit conditions, as appropriate, to ensure protection of public health and the environment.

1. All materials will be durable, corrosion resistant, and designed for the intended use.

2. All electrical connections completed on site shall comply with the National Fire Protection Association (NFPA) Standard NFPA 70, National Electrical Code, as required by the Idaho Division of Building Safety, Electrical Division.
3. Design for each specific application should be provided by a PE licensed in Idaho.
4. Manufactured and *packaged* mechanical treatment devices will be required to prove that the specified equipment model meets the ETPS product approval policy outlined in section 1.4.2.2.

4.8.4 Construction

Procedures relating to construction are required by IDAPA 58.01.03 (section 7.1) or may be required as permit conditions, as appropriate, to ensure the protection of public health and the environment.

1. Installation
 - a. A licensed complex system installer shall be required to install an ETPS unit and all other portions of the septic system connected to the ETPS unit or that the ETPS unit discharges to (IDAPA 58.01.03.006.01.b).
 - b. A public works contractor may install an ETPS unit if they are under the direct supervision of a PE licensed in Idaho.
 - c. Licensed plumbers and electricians will be required to install specific devices and components for proper system operation. If the device requires any on-site fabrication or component assembly, a public works contractor should be used.
 - d. A sample port will be installed in the effluent line after the aerobic treatment unit. Figure 4-13 shows the placement of a sampling port after the ETPS unit, and Figure 4-14 shows the sample port and drainfield after the septic and treatment tank.

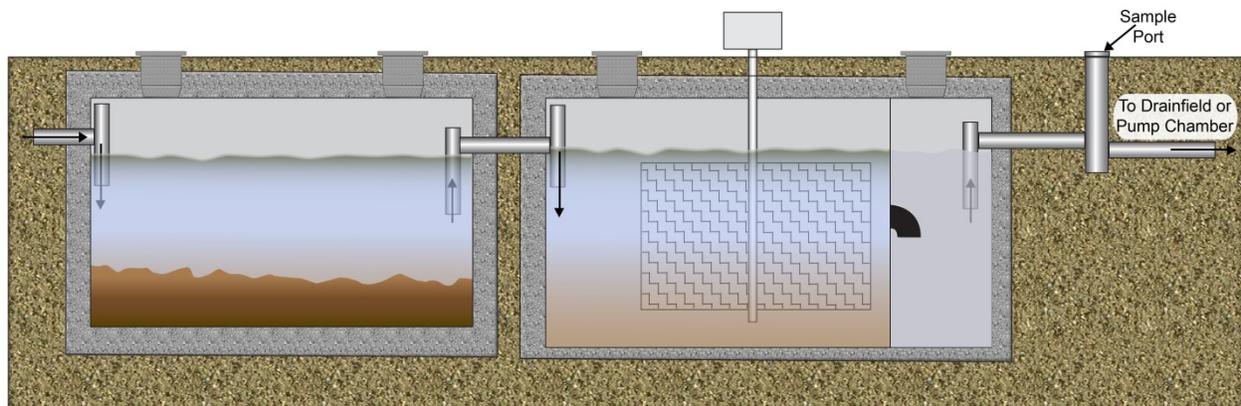


Figure 4-13. Sampling port example.

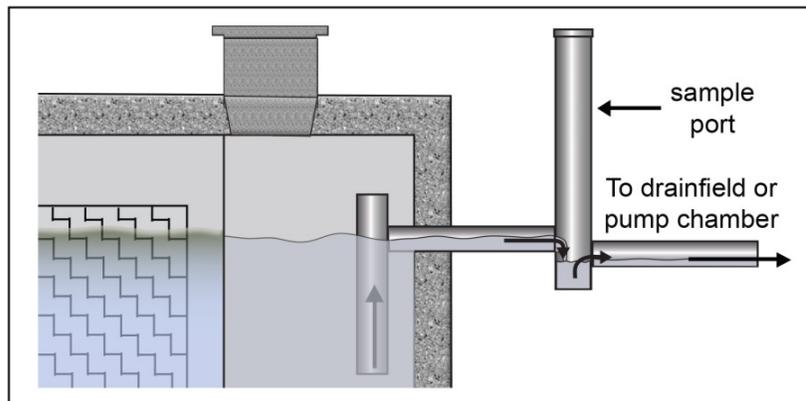
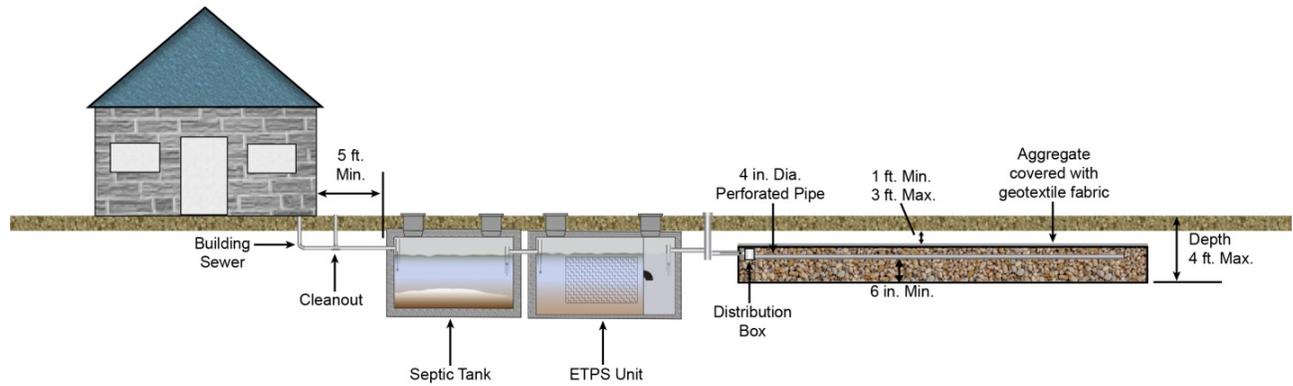


Figure 4-14. Sampling port and drainfield.

2. Within 30 days of completing the installation, the property owner shall provide certification to the regulatory authority, from their O&M entity Manufacturer's Representative, that the system has been installed and is operating in accordance with the manufacturer's recommendations (IDAPA 58.01.03.005.15).
 - a. A statement requiring the submission of the installation verification form described above shall be written on the face of the subsurface sewage disposal permit.
 - b. The regulatory authority shall not finalize the subsurface sewage disposal permit until the certification of proper installation and operation is received and includes information on the manufacturer, product, model number, and serial number of the ETPS unit installed.



State of Idaho
Department Of Environmental Quality
Technical Guidance Committee

Appendix H

From: [James Craft](#)
To: ["Fred Vengrouski"; Larry Waters](#)
Cc: ashley.garrison@presbyeco.com
Subject: RE: TGC meeting information
Date: Monday, June 05, 2017 8:02:00 AM

Fred,

See below for answers to your questions. I am looking forward to meeting you and Mark Fricke as well at the next TGC meeting.

1) Based on the comments from the previous TGC meeting has Infiltrator sent in a response/draft manual? If so, is it available for public review and comments?

Answer: DEQ is finalizing comments on Infiltrator's manual. The manual is not available for public review and comments.

2) Was our letter regarding ATL ,submitted at the last minute prior to the last TGC meeting, circulated among TGC members and interested parties?

Answer: Your letter and comments regarding ATL were considered during the DEQ and TGC product review process.

3) Is our letter of concern regarding ATL considered a public comment? If so, should it not be added to the minutes or formal documentation for the previous TGC meeting?

Answer: The TGC minutes of May 3rd can be amended to include your letter and will be discussed during the TGC June 8th meeting.

4) Can you or I ask to revise the minutes to reflect our understanding of the minutes, namely that Dick Bachelor, representing Infiltrator at the last meeting, said Infiltrator did not have field data for ATL?

Answer: I can revise the minutes and discuss this comment during the next TGC meeting on June 8th.

5) Did Tyler send a letter to Infiltrator formalizing TGC's request for more information? If so, is it available for the public to view?

Answer: I am finalizing comments on Infiltrator's manual. The manual is not available for public review and comments.

Thanks,
James

From: Fred Vengrouski [mailto:fred.vengrouskie@presbyeco.com]
Sent: Friday, June 02, 2017 9:53 AM
To: Larry Waters
Cc: James Craft; ashley.garrison@presbyeco.com

Subject: Re: TGC meeting information

Thank you Larry.

In the event that I can't be reached next week please call Ashley Garrison at 1-800-473-5298 ext. 28. We would like the opportunity to discuss the answers to our questions before the next meeting if at all possible.

Thank you,

Fred
Fred Vengrouskie
Government Relations Representative
Presby Plastics, Inc.
Phone: 603-631-5406
email: fred.vengrouskie@presbyeco.com

On Jun 2, 2017, at 10:15 AM, <Larry.Waters@deq.idaho.gov>
<Larry.Waters@deq.idaho.gov> wrote:

Fred,

Thank you for the email. I don't have answers to many of your questions at this time but I will have James contact you first thing Monday morning. If you are on the road at that time and can't be reached we will have answers for you at the TGC meeting.

Thanks,

Larry Waters, PE
Wastewater Program Engineering Manager
Water Quality Division
Idaho DEQ
1410 North Hilton
Boise, ID 83706
(208) 373-0151 Direct
larry.waters@deq.idaho.gov

<image001.png>

From: Fred Vengrouski [<mailto:fred.vengrouskie@presbyeco.com>]
Sent: Friday, June 02, 2017 9:02 AM
To: Larry Waters
Cc: James Craft; Ashley Garrison
Subject: Fwd: TGC meeting information

Larry,

I sent the below email to James Craft this morning. An automated email prompted

me to forward the email to you in his absence.

Thanks,
Fred
Fred Vengrouskie
Government Relations Representative
Presby Plastics, Inc.
Phone: 603-631-5406
email: fred.vengrouskie@presbyeco.com

Begin forwarded message:

From: Fred Vengrouski <fred.vengrouskie@presbyeco.com>
Subject: TGC meeting information
Date: June 2, 2017 at 7:03:16 AM CDT
To: james.craft@deq.idaho.gov
Cc: Ashley Garrison <ashley.garrison@presbyeco.com>

James,

Mark Fricke, our national sales manager, and I will be working in Idaho next week and are planning on taking advantage that opportunity to attend the June 8, TGC meeting in person. We are looking forward to meeting you and the TGC members in person.

In preparation for the upcoming meeting we have a few questions:

- 1) Based on the comments from the previous TGC meeting has Infiltrator sent in a response/draft manual? If so, is it available for public review and comments?
- 2) Was our letter regarding ATL, submitted at the last minute prior to the last TGC meeting, circulated among TGC members and interested parties?
- 3) Is our letter of concern regarding ATL considered a public comment? If so, should it not be added to the minutes or formal documentation for the previous TGC meeting?
- 4) Can you or I ask to revise the minutes to reflect our understanding of the minutes, namely that Dick Bachelor, representing Infiltrator at the last meeting, said Infiltrator did not have field data for ATL?
- 5) Did Tyler send a letter to Infiltrator formalizing TGC's request for more information? If so, is it available for the public to view?

Thank you,

Fred

Fred Vengrouskie
Government Relations Representative
Presby Plastics, Inc.
Phone: 603-631-5406
email: fred.vengrouskie@presbyeco.com



Presby Environmental, Inc.

The Next Generation of Wastewater Treatment Technology

143 Airport Rd., Whitefield, NH 03598

Tel: 800-473-5298 Fax: (603) 837-9864

www.PresbyEnvironmental.com

May 2, 2017

VIA EMAIL

Larry Waters, PE, Wastewater Program Engineering Manager
Co-Chairman, Technical Guidance Committee
Idaho DEQ State Office
Water Quality Division
1410 N. Hilton
Boise, ID 83706

RE: Comments on Infiltrator Water Technologies Request for Approval for Use
ATL (Advanced Treatment Leachfield) System

Dear Mr. Waters:

When the agenda for the May 3, 2017 TGC meeting was shared with us on April 28, 2017, it came to the attention of Presby Environmental, Inc. (PEI) that Infiltrator Water Technologies (Infiltrator) is seeking approval for their ATL product; it was only on May 1, 2017 that DEQ shared with us Infiltrator's draft manual. There has not been sufficient time to thoroughly review and comment on the various issues associated with Infiltrator's application. While we feel it would be inappropriate to consider this product for approval at May 3, 2017 meeting based on inadequate notice, we wish to make the following observations, and reserve the right for further comment.

Briefly, here are our concerns with Infiltrator's Request for Approval of the ATL System:

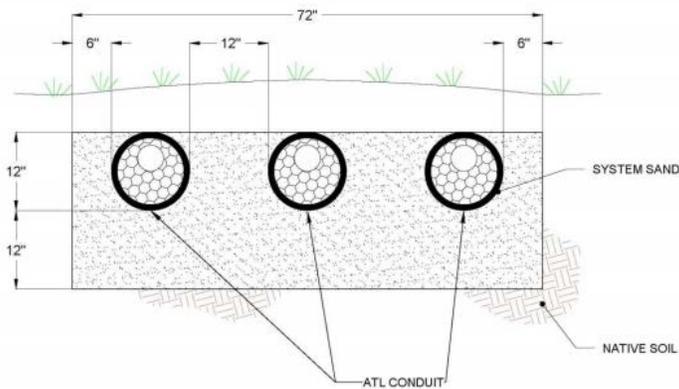
- Technical Inadequacies
- Product Amount/Loading Rates
- Absence of Field Data
- Unproven Technology

Technical Inadequacies

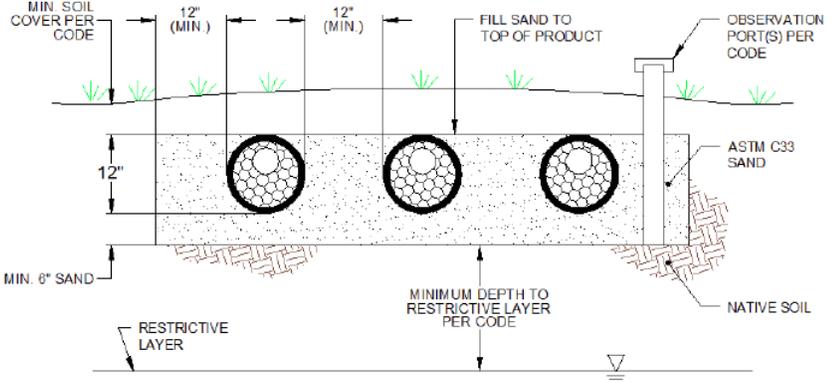
Infiltrator's request for approval and accompanying Design and Installation Manual reflect design parameters which have never been tested and deviate from its NSF Standard 40 certified models. For example, diagrams on pages 5 through 7 all show 6" of System Sand on the outside perimeter. The ATL System was tested with 12" of System Sand around the perimeter. If it were not critical for the ATL System's performance, Infiltrator certainly would have tested the smaller, more competitive model.

The ATL System has also never been tested with 12" of System Sand below their product. In an email chain recently with Adrian Aspenson (Business Development Manager of the NSF Water System division), NSF stated that their engineering department determined that a system would need to be re-tested to change the certified model from 6" of sand to 12" of sand below the product. NSF stated that *"Because you want to certify a 12" bed dept [sic] ... you need [Standard] 40 tested at the same bed depth. 6" bed depth does not translate. This is what engineering conveyed to me and it makes sense."*

Infiltrator's Idaho ATL Criteria



Infiltrator's NSF Standard 40 ATL Testing



Further, the Infiltrator ATL System has only one certified model which reflects their three-bedroom configuration in every other state; Infiltrator has never undergone an engineered review to certify any other flow rates other than for a three-bedroom house.

Infiltrator's NSF Listing

Infiltrator Water Technologies, LLC

4 Business Park
P.O. Box 768
Old Saybrook, CT 06475
United States
800-221-4436
860-577-7000
[Visit this company's website](#)

Facility : Salisbury, NC

Model Number	Rated Capacity Gallons/Day	Classification
ATL-450	450	Class I

Finally, storage capacity was a major component of the product review and subsequent approval for the AES system. There were in-depth technical reviews of the storage capacity offered by the AES system, layout, and materials, compared to that of a drainrock and pipe drain field. This requirement was outlined in part in the March 29, 2016 letter from Mr. Fortunati to PEI where PEI was instructed to change the product spacing and criteria to meet the State requirements. There seems to be a complete disregard of this requirement on behalf of Infiltrator as their product utilizes a 4" pipe compared to our

12" pipe yet they want to employ similar design criteria. It seems this storage capacity requirement is being ignored for the ATL product. We strongly feel that Infiltrator needs to address this requirement in technical documentation submitted to DEQ.

Product Amount / Loading Rates

Presby's AES system has been NSF certified using a design load of 3GPD/LF. Having a conservative nature, PEI requested a minimum pipe amount of 30 linear feet per bedroom (we could have requested lower minimums based on our NSF Certification). That request was denied, and PEI was required to utilize a design criteria that provided 50 linear feet per bdrm. This requirement relied on the certified model utilizing 50 feet per bedroom (based on NSF's design load per bedroom), other states having commonly approved the AES system using 50 feet per bedroom, and PEI being required to provide field data, which we had been collected from systems that primarily utilize 40 to 50 feet per bedroom.

Infiltrator Water Technologies, Bio-Microbics, R.C. Worst and Orenco were some of the most outspoken opponents of relying on test data only. The three manufactures signed onto a letter allowing Infiltrator's representative Dick Bachelder to represent all three companies. Mr. Bachelder, on these companies' behalf, insisted on the importance of requiring field data and modeling after other State approvals with a long term track record. During the May 18, 2016 TGC meeting, Mr. Bachelder stated that, while Infiltrator knows PEI had performed testing at 3 gallons per day per linear foot of AES, that Infiltrator is unaware of any in-ground performance data of Presby, and that the committee should look for field performance evidence. Mr. Bachelder also points out that in the minutes recorded for the prior meeting PEI agreed to provide BNQ secondary and tertiary testing information along with annual field results, and that he wanted the committee to have PEI answer that question. He later stated that the committee should review and rely on the pipe amounts and sand amount related to that field data.

Following the comments by from Infiltrator insisting that 1) the amount of product used for the Presby AES system should not follow our NSF certified loading rate of 3GPD per linear foot and that any approved pipe amount must be accompanied by "compelling" field data, and 2) the amount of material used must be modeled after other State approvals, Tyler Fortunati reviewed information from various third party tests as well as other state specific design manuals and gave PEI the following instructions in a letter dated March 29, 2016:

Based on ANSI/NSF, BNQ, and other state specific design manuals DEQ requests that PEI adjust the IDIM to a minimum AES pipe length of 50 feet/bedroom for residential systems and 2 gallons/day/foot for commercial systems. This will allow the Idaho minimum AES sizing to be reflective of the current national standards for PEI design and installation. Additionally, DEQ recognizes that the Idaho design flows for residential subsurface sewerage disposal systems are far below the national average on a per-bedroom basis.

The Infiltrator ATL System is NSF Standard 40 certified for 70 linear feet per bedroom and all state approvals for the ATL system require 70 feet per bedroom. PEI requested an approval at 30 linear feet but was denied after vehement arguments by Infiltrator and others (Bio-Microbics, Orenco, and R.C. Worst) opposing our request based on a lack of field data at those pipe amounts. Amazingly, Mr. Bachelder is now back in front of the TGC, contradicting his statements last year and requesting approval of the ATL system with as little as 20 linear feet per bedroom. Infiltrator, and Mr. Bachelder's, flagrant disregard for the concerns they were so adamant about last year is disturbing at best.

Absence of Field Data

At the May 18, 2016 TGC meeting, Mr. Bachelder repeatedly stated that our product should not be approved because it lacked field verification (which is a false statement, but beside the point), yet they come before the TGC now a year later stating that their product should be approved despite its short history, minimal testing, and no field data that we are aware of.

The requirement to provide and rely on field data was critical in PEI's Advanced Enviro-Septic® approval in Idaho. This requirement was first raised by Mr. Dale Peck during the February 4, 2016, who asked if there were other states with historical testing data, and echoed by Allan Worst of R.C. Worst and Nick Noble of Orenco.

R.C. Worst's February 3, 2016 Letter

1. It has been the trend in Idaho to approve technology that has had some proven track record in the State. Based on Mr. Erickson's testimony, it appears that funding for testing fell short, and therefore, we have no way of knowing how well the systems installed in Blaine County are performing currently. We feel it would be inconsistent and irresponsible for the committee to approve loading rate and soil separation reductions for a technology with no proven track record in the State. In order to maintain reasonable consistency, it would be our recommendation to require 30 systems and 3 years testing to maintain performance validation methods currently required of other technologies.
2. Please also consider the following statement from the August 20, 2015 Technical Guidance Committee Meeting Minutes: "*Tyler Fortunati stated that the TGC is capable of requiring a manufactured product submitted for review under the proprietary product policy to undergo the two-level approval process that extended treatment package systems would have to go through.*" We believe that before the Presby products are approved as a Proprietary Product, they should be subject to the 30 systems and 3 year testing protocol as is required of other technologies and as discussed in the meeting mentioned above. .

Orenco's February 3, 2016 Letter

Anyone who has some experience in the wastewater treatment industry understands that systems in the real world (Not an NSF bench test) are subject to peak flows, higher strength waste, leaking toilets, and significant amounts of fats, oils, greases (FOG). Recently, we are seeing an increased rate of pharmaceuticals impacting microbial populations and thus treatment efficacy. As all treatment system manufacturers would tell you these conditions will have deleterious effects on systems performance. The difference between most systems that experience one or more of these

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Niewoehner, and Lindbo. Mr. Bachelder also stated that the companies were concerned with the proposed minimum piping lengths of 30 lineal feet per bedroom that have been recommended by Presby Environmental, Inc. Mr. Bachelder encouraged the committee to look for field performance evaluation at that piping length. Mr. Bachelder would like to

The TGC member and our competitors insisted we provide field data despite a documented successful track record of over 20 years; failure to provide this field data would have required PEI to go through the provisional approval process, with 30 systems being installed and monitored over a period of three years. It was only after PEI submitted our years of field data that we were able to gain a general approval. 8 days after Allan Worst of R.C. Worst participated in the February 3, 2016 TGC meeting, insisting Presby provide field data, DEQ sent PEI a February 11, 2016 letter requiring submittal of additional testing and field testing results; our approval process was delayed until this information could be reviewed. We submit that since Infiltrator does not have the extensive field data and additional testing required of similar products, they should go through the provisional approval process.

Unproven Technology

The ATL product has little field history and virtually no established track-record in the onsite septic market. In fact, Infiltrator (and Dick Bachelder personally) opposed PEI's application in a letter written on April 19, 2016 and co-signed by Sheryl Ervin of Bio-Microbics and Nick Noble of Orenco Systems. During the May 18, 2016 TGC committee meeting Dick Bachelder personally stated that when their ATL product was tested with 6 inches of sand beneath the pipe and loaded at 2.1 gallons per linear foot the product exceeded NSF 40 performance standards but that **he could not verify how long their ATL product would perform at that loading rate**. This sentiment is part of the reason Idaho DEQ required PEI to provide field data.

Conclusion

Infiltrator may attempt to argue that TGC recommendations regarding NSF certification adherence and field verification are merely persuasive, and that the ultimate authority rests with DEQ. However, when PEI asked DEQ directly for an approval that varied from its field data (12" of sand below) and relied on NSF testing only (6" of sand below), PEI was told that NSF certification was not sufficient, DEQ would abide by the recommendations of TGC and thus required field verification and 12" of System Sand underneath our pipes.

It is curious that Bio-Microbics, Orenco, R.C. Worst and others are not objecting to this application, despite the fact that Infiltrator's design criteria closely mimic the very same requests made by Presby, which they vehemently objected to and that were eventually denied by DEQ and TGC.

We feel that, if DEQ considers this application, it must be in accordance with NSF Standard 40 Certified models, with pipe amounts used with other approvals, System Sand requirements consistent with tested models, and must undergo the provisional approval process of obtaining field data since they currently do not have any.

To be consistent with requirements imposed on competing technology, any approval of the ATL System must require:

- 12" of System Sand surrounding the perimeter – not the 6" of System Sand on the perimeter as reflected in various schematics in the ATL manual;
- 6" of System Sand below the ATL pipe consistent with its NSF testing – not the 12" of System Sand below the pipes shown in the draft manual, especially considering NSF would not allow a system's sand depth to change from its NSF certified configuration;
- A minimum of 70 linear feet per bedroom to be consistent with its NSF testing and other state approvals;
- Substantial field data to be able to circumvent the performance validation methods currently required for other technology; and
- Storage capacity calculations.

Sincerely,



LEE RASHKIN
Vice President

CC: Attorney Semanko, Moffatt Law
Tyler Fortunati, REHS, IPDES Compliance, Inspection, and Enforcement Lead, DEQ
Barry Burnell, Water Quality Division Administrator, DEQ
James Craft, On-Site Wastewater Coordinator, DEQ



June 7, 2017

Technical Guidance Committee
Submitted via James Craft by email to:
James.Craft@deq.idaho.gov

Re: Recommendation for AES Systems to be Engineered

Dear Committee Members:

I am a registered engineer with 36 years' experience and have owned my own civil engineering consulting business the last 24 years. I have designed well over 100 septic systems in Southeastern Idaho since moving into the state. My designs have been for all types of systems as suited to specific site conditions. I felt the Presby AES system should have been an option available for use when I moved to Idaho, so I welcome its addition to the systems available for use.

One aspect of AES is that the proprietary pipe is expensive compared with other drainfield systems. Unless that changes substantially, it will never compete cost wise with other systems except in extreme environmental conditions that likely involving very shallow groundwater or limiting soil layers—the same conditions for which all other solutions require an engineered system. So is this a win for the future septic system owner—to be able to have a non-engineered solution for difficult environmental conditions? Perhaps, but having already designed 6 of them, and having interacted with installers, general contractors, and homeowners, I don't think it should be. Please let me explain.

Complexity of Design AES systems are not that simple despite their being a gravity system. Just look at the manual. Yes, the contents could be a little more concise, but still, there is far more than what is involved with most other complex engineered systems. For example, take the most complex or most lengthy combination of text in the TGM, and you have 15 pages regarding pressure systems and 11 pages regarding sand mounds for a total of 26 pages. Some engineered systems are covered entirely in just a few pages. The AES manual is 24 pages long with smaller text than the TGM uses. There really is as much there as for a pressure system used with a sand mound.

An installer must be complex system approved and Presby certified. But an installer must be complex system approved for other complex systems as well and yet they still must be engineered. Clearly it was felt that having the complex license means the installer is familiar with such systems but should not be “designing” them—which is typically done in their head or by seat of their pants. Why should the AES system be considered different than any other systems? And I might add, the Presby certification is not extensive by any means.

Consider with me this very real scenario. The inspector issues a permit for an AES system. The permit specifies:

- The area of drainfield based on soils is X square feet;
- The length of AES piping based on the number of bedrooms (50' per bedroom) is Y feet; and
- The maximum depth to bottom of sand in the AES trench is at depth Z to meet vertical separation requirements.

There are spacing requirements for AES pipes, so much between and so much on sides and ends, with options being 1, 2, or 3 pipes per trench for different trench widths, etc. There are venting requirements. Moreover, because for cost purposes this system would likely only be used under very shallow conditions, the vertical design becomes the most challenging aspect of the system, which I explain below.

Vertical Design, Coordination, and Timing Without an engineered plan as part of the permit approval process, we see problems that installers and general contractors have both agreed will be an issue.

Most likely the system will be elevated with above grade capping fill and the plumbing from the house is high--maybe above existing grade (with 5 of the 6 I have done it was). Typically the septic system is constructed after the house



foundation, framing, roof, and siding are all completed to delay costs and keep trucks from driving over the system. At this stage the rough in plumbing is already completed. Then the installer shows up on site to install an AES system and guess what? With the entire design and grades not worked out in advance and shared with builder and plumber and homeowner who might want to have a say in the elevation of the building with respect to existing grade, the plumbing will not work as the sewer stub out is too low. Do you think that is their problem if they don't plan ahead and communicate? Well, yes it is, but that problem, which is very real, can be avoided—just as problems are avoided on other systems by having it engineered in advance, with all the grades thought through.

I asked a general contractor that if he had a permit for AES, would the installer likely inform him of the precise grades or need to have shallow plumbing? He said no, he would get the AES permit and from there the building permit and start construction. The installer would not even be on the job or even selected until later. He would not know of the need to raise the floor a foot or 2 or 3 to make the AES work, and neither would his plumber. I asked if it would work if the installer was known up front? Did he think his installer would figure out the whole design and grade needed and notify the builder who would notify the plumber and the homeowner and get approvals for raising the grade of the house? He said no, that would not likely happen. The foundation and floor would be set. This conversation took place after he already knew he did not need an engineered plan for an AES, but after considering the above issues he paid me to design it to be sure to have a system that worked. But rarely will I have the opportunity to have the builder or installer or homeowner in my office to explain the above, and problems will most likely occur—problems that a completely thought out plan on paper and not just in one's head, will avoid. I doubt few installers, with their limited Presby certification, will use the design manual and fully design this out in advance to ensure that all is done right.

Chad Ball, Custom Backhoe, who I think has installed more complex septic systems than anyone else in eastern Idaho over the last 5 years, himself said he would prefer having an engineered plan than to try to wing it on his own.

Environmentally Tough Conditions Certain site conditions are tough and require non-basic solutions. Every one of these solutions requires an engineered system—except for AES. It makes sense that the engineer design for all these situations and evaluate all possible options for the tough conditions, including AES, and not midway lose the client over an AES recommendation or worse to avoid informing the client about the solution because he may then walk since it does not have to be engineered.

Summary The AES should be engineered because:

- It is as complex as other engineered systems;
- Grades really need to be totally worked out in advance and shared with all parties to ensure that the system can be constructed and required house elevations are acceptable; and
- All environmentally tough conditions should have an engineered solution rather than all but one.

If AES systems do not have to be engineered because they are simple that is erroneous, and if the reason is because the manufacturer wanted more installations because they don't have to be engineered, that too is faulty because it is not about systems sold, but systems that can be properly installed. Please SERIOUSLY consider the above and having AES systems engineering in the future.

Sincerely,

Williams Engineering, Inc.

By: Gerald Williams, P.E.