



Technical Guidance Committee Meeting

Minutes

Thursday, August 8, 2013

**Department of Environmental Quality
Conference Room C
1410 N. Hilton
Boise, Idaho**

TGC ATTENDEES:

Tyler Fortunati, R.E.H.S., On-Site Wastewater Coordinator, DEQ
Joe Canning, P.E., B&A Engineers
Bob Erickson, Senior Environmental Health Specialist, South Central Public Health District
David Loper, Environmental Health Director, Southwest District Health Department
Michael Reno, Environmental Health Supervisor, Central District Health Department
George Miles, P.E., Advanced Wastewater Engineering, Inc. (via telephone and GoToMeeting)

GUESTS:

Chas Ariss, P.E., Wastewater Engineering Manager, DEQ
PaRee Godsill, Everlasting Extended Treatment, Inc.
Ryan Spiers, Alternative Wastewater Systems, LLC
Matt Gibbs, Infiltrator, Inc.
AJ Maupin, P.E., Wastewater Program Engineering Lead, DEQ
Kellye Eager, Environmental Health Director, Eastern Idaho Public Health Department (via telephone and GoToMeeting)
Raymond Keating, Environmental Health Specialist, Eastern Idaho Public Health Department (via telephone and GoToMeeting)
James Bell, Bio-Microbics, Inc. (via telephone and GoToMeeting)
Allen Worst, R.C. Worst & Company, Inc. (via telephone and GoToMeeting)
Janette Young, Administrative Assistant, DEQ

CALL TO ORDER/ROLL CALL:

Meeting called to order at 9:15 a.m.
Committee members and guests introduced themselves.

OPEN PUBLIC COMMENT PERIOD:

This section of the meeting is open to the public to present information to the TGC that is not on the agenda. The TGC is not taking action on the information presented.

No public comments were submitted during the allotted agenda timeframe.



ETPS SUBCOMMITTEE UPDATE:

Tyler Fortunati presented an update to TGC on what the ETPS Subcommittee has discussed and produced to date and what the TGC will be reviewing and approving today. He provided a brief overview of the process the Extended Treatment Package Subcommittee went through to create and revise the Extended Treatment Package System guidance documents that were presented to the TGC as part of this meeting.

NEW BUSINESS/DRAFT REVIEW:

4.2 Nonprofit Corporations

The Committee reviewed the proposed revisions and amendments to the Nonprofit Corporation guidance and structure. Tyler Fortunati stated that these changes will only impact newly proposed O&M Entities going forward and are not retroactive on previously approved O & M entities. Tyler Fortunati also stated it would be acceptable if existing O&M Entities decided to amend their bylaws to be in conformance with the program recommendations proposed in the revision of this guidance section. Discussion was held on whether DEQ could request Planning and Zoning Boards, or other similar County offices, to amend their subdivision ordinances to include a requirement that property owners notify O&M Entities of property ownership transfers through subdivision CC&Rs if the subdivision is engineered with ETPS septic systems.

Motion: Michael Reno moved that the TGC recommend preliminary approval of Section 4.2 Nonprofit Corporations and that DEQ issue the revised sections for public comment.

Second: Bob Erickson.

Voice Vote: Motion carried unanimously. See **Appendix A** and provide public comment to Tyler Fortunati at 208-373-0140 or by email at tyler.fortunati@deq.idaho.gov.

4.10 Extended Treatment Package Systems

The Committee reviewed the proposed revisions and amendments to the Extended Treatment Package System guidance. Michael Reno suggested that a requirement be added that the service provider must submit documentation that the ETPS unit and its associated components have been installed according to the manufacturer's recommendations prior to the installation permit being finalized. The health districts cannot verify this for each technology since they have not been trained by the manufacturer. Tyler Fortunati stated that this requirement could be supported by IDAPA 58.01.03.005.15 and should be written into the installation permit.

Mike Reno would also like to see the submission of annual reports be required to be done by mail. This provides an incentive not to falsify records, reports, or test results through the threat of prosecution for mail fraud.



The committee asked that a few adjustments be made to some of the figures in this proposed section that included the addition of risers on the septic and ETPS tanks and the correction of a spelling error.

Michael Reno voiced concern over the lag time between when an ETPS unit is sampled in November and the test results show that the unit is out of compliance and the receipt of the report on July 31 when no corrective action is taken by the out of compliance ETPS unit. The unit may be operating out of compliance for several months with no attempt at fixing the system. Michael Reno would like to be able to issue a Notice of Violation to the O&M Entity for not following the retesting requirements. Tyler Fortunati clarified the Attorney General's comments on issuing an NOV. An NOV cannot be issued against an O&M Entity and can only be issued to a property owner in relation to the status of the ETPS unit. Tyler Fortunati explained that in this type of situation the property owner's system would be considered a failing system if they were past the 90 day service and sampling period after the initial failed test result. If this is the case the district should issue the property owner an NOV and follow the failing system enforcement process.

10:50 a.m. Break

11:00 a.m. Meeting resumed.

4.10 Extended Treatment Package Systems (Appendix B) (Continued)

The committee discussed the responsible parties under Section 4.10.5 ETPS System Failure, Disapproval and Reinstatement. Tyler Fortunati clarified that only the manufacturer and property owner are responsible per IDAPA 58.01.03.002.04 according to the Attorney General's office. Instead of suspending Nonprofit O&M Entities the emphasis has shifted to a disapproval of a manufacturer's product. This happens if more than 10% of the manufacturer's ETPS units are out of compliance statewide instead of by the compliance status of individual O&M Entities. George Miles requested clarification on manufacturer product disapproval asking if one of the manufacturer's ETPS models is not working, do all the manufacturer's products become disapproved. Tyler Fortunati stated at this point that is the intent because of the concern that the products are not being operated in compliance or consistently functioning in compliance with the subsurface rules. The manufacturer would be provided the opportunity to hold a contested case hearing and may have their product approvals reinstated by following Section 4.10.5.3 of the proposed guidance. Tyler Fortunati will discuss the disapproval process and allowances with the Attorney General's office and the Water Quality Division Administrator to ensure the disapproval process is acceptable.

Motion: Michael Reno moved that the TGC recommend preliminary approval of Section 4.10 Extended Treatment Package System and that DEQ issue the revised sections for public comment.

Second: David Loper.



Voice Vote: Motion carried unanimously. See **Appendix B** and provide public comment to Tyler Fortunati at 208-373-0140 or by email at tyler.fortunati@deq.idaho.gov.

The meeting was adjourned for Lunch.
Lunch 12:00 p.m. – 1:10 p.m.

DEQ Service and Testing Reminder – Explanation Letter

The committee reviewed the letter to be sent out to homeowners from their O&M Entity. This letter would be provided to the O&M Entities on DEQ letterhead and is meant to be included in the annual O&M Entity mailings. The letter provides a reminder of service and testing requirements, and information on where a homeowner can access resources related to ETPS systems. Some small revisions were made by the committee.

Motion: Bob Erickson moved that the TGC recommend preliminary approval of DEQ Service and Testing Reminder – Explanation Letter, with the changes added today and that DEQ issue the revised letter for public comment.

Second: George Miles.

Voice Vote: Motion carried unanimously. See **Appendix C** and provide public comment to Tyler Fortunati at 208-373-0140 or by email at tyler.fortunati@deq.idaho.gov.

Letter 1 – It Has Come to Our Attention

Letter 1 is meant to be sent out by the regulatory agency when there is a refusal of service and/or testing, and includes the service reminder letter as an additional enclosure. This letter would go out after receipt of the annual report for a property owner. The annual report from the O&M Entity must include adequate documentation as outlined in Section 4.10 of the TGM prior to the regulatory agency issuing this letter. The letter is meant to be a pre-enforcement reminder letter to the property owner that informs them of their requirements associated with the ETPS unit through their septic permit. Contact information for their O&M Entity and service provider is included in the letter.

Motion: Michael Reno moved that the TGC recommend preliminary approval of Letter 1 with the changes added today and that DEQ issue the revised letter for public comment.

Second: Joe Canning.

Voice Vote: Motion carried unanimously. See **Appendix D** and provide public comment to Tyler Fortunati at 208-373-0140 or by email at tyler.fortunati@deq.idaho.gov.



Letter 2 – Voluntary Deadline to Comply

Letter 2 is meant to be sent out by the regulatory authority if there is no response or action initiated after a property owner's receipt of Letter 1. This letter is meant to be issued after 30 days of no response or action from Letter 1. The letter is more regulatory in tone and includes the IDAPA citations that the property owner is in violation of. It also includes a voluntary compliance date for the property owner to meet their responsibilities, and the notification that if the responsibilities are not met that the regulatory authority may pursue legal action against the property owner. This letter is copied to the O&M Entity and the County Prosecutor's office.

Motion: Joe Canning moved that the TGC recommend preliminary approval of Letter 2 with the changes added today and that DEQ issue the revised letter for public comment.

Second: George Miles.

Voice Vote: Motion carried unanimously. See **Appendix E** and provide public comment to Tyler Fortunati at 208-373-0140 or by email at tyler.fortunati@deq.idaho.gov.

1.4.2.2 Extended Treatment Package System Approvals

This proposed guidance addition was added to the agenda based on the TGC request from the July 18, 2013 TGC meeting. This section addresses a formal policy on ETPS product approvals in the State of Idaho. Discussion was held on how new systems will be evaluated and approved in the State of Idaho. James Bell provided background on the NSF/ANSI 360 standard.

Motion: Bob Erickson moved that the TGC recommend preliminary approval of Section 1.4.2.2 Extended Treatment Package System Approvals with the changes added today, and that DEQ issue the revised sections for public comment.

Second: Joe Canning.

Voice Vote: Motion carried with 4 ayes and 1 abstained. See **Appendix F** and provide public comment to Tyler Fortunati at 208-373-0140 or by email at tyler.fortunati@deq.idaho.gov.

2:20 p.m. Break

3:00 p.m. Meeting resumed.

Presentation of Drainfield to Surface Water Setback Determination Guidance

A.J. Maupin provided an overview of the guidance developed by DEQ that is to be used to determine acceptable site-specific drainfield setbacks to surface water. This guidance is used when an applicant is seeking a setback to surface water that is less than what is



allowed by rule or guidance for a site based upon the native site soils. To pursue a reduced setback to surface water through this guidance an applicant would have to apply for a variance. The variance would be supported by the model results produced through use of the guidance. The reduction limitations of the model are based off of phosphorous impacts to the nearby surface water. Prior to utilizing this guidance an applicant would have to successfully pass a Nutrient Pathogen (NP) Evaluation. The minimum allowable setback to surface water will not be less than 100 feet regardless of site soils under this guidance. Drainfields are limited to pressurized designs, with both drainfields installed before the permit is finalized. These dual drainfields must be installed in the upper soil profile horizons which limits the system type to a drip-distribution system or a pressurized cap and fill design with maximum installation depths of 12 inches. DEQ will review the NP Evaluation and the Drainfield to Surface Water Setback model and will send recommendations to the appropriate health district for their use in consideration of the variance approval.

A condition of the phosphorous guidance and model is that the site and soils will have an associated lifespan for the effective mitigation of phosphorous discharges in the septic system effluent. This results in a drainfield only functioning effectively for a guaranteed timespan. The model is conservative in its evaluation and lifespans may vary but could be expected between 100-1000 years. The committee raised the question as to what happens once the drainfield life is reached on the combined primary and replacement areas. There was concern regarding the sites with limited space that would not have space for more than two drainfields and what is to be done after the point in time that both drainfields had reached their effective lifespan. AJ Maupin provided clarification that the mineralization of phosphorous in the soils would be expected to free up some additional sorption capacity over time. This would be expected to extend the useful life of the drainfield site beyond the model's conservative estimate.

Motion: Michael Reno moved that the TGC recommend preliminary approval of On-site Setback Distance Determination: Modeling Phosphorous in the Environment as the Critical Constituent and that DEQ issue the document for public comment.

Second: David Loper.

Voice Vote: Motion carried with 4 ayes and 1 nay. See **Appendix G** and provide public comment to Tyler Fortunati at 208-373-0140 or by email at tyler.fortunati@deq.idaho.gov.

NEXT MEETING:

The next committee meeting is scheduled to be on October 31, 2013, 9:15 a.m. – 4:30 p.m. at the DEQ State Office building.

Motion: Michael Reno moved to adjourn the meeting.

Second: Bob Erickson.

Voice Vote: Motion carried unanimously.



The meeting adjourned at 3:45 p.m.

TGC Parking Lot.

This is a running list of issues requested to be prepared and presented at a future TGC meeting.

- 4.20 Pressure Distribution System
 - Low Pressure Wastewater Handling System Guidance update
- Develop Operation and Maintenance requirements for section 4.22 Recirculating Gravel Filter and 4.28 Two-Cell Infiltrative System
- 4.7 Drip Distribution System
 - Adjust typical system components to minimum in section 4.7.1
- 4.9 Experimental System
 - Adjust the condition of approval relating to the site being acceptable for an approved alternative system to a basic alternative system
- Chapter 6
 - Update entire chapter and adjust section 6.5.2 to match the pumper rule requirements for permit renewal



Appendix A

4.2 Nonprofit Corporations

Revision: ~~November 21, 2000~~ June 27, 2013

Nonprofit Corporations (Entities) to manage large soil absorption systems, extended treatment, ~~or~~ experimental systems, ~~clustered systems,~~ or any other ~~more~~-complex systems 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 (O&M). The following guidance provides for a nonprofit corporation which can do that: If an O&M Entity is setup to provide operation and maintenance for Extended Treatment Package Systems (IDAPA 58.01.03.009.02 and 58.01.03.009.03) or Large Soil Absorption Systems (IDAPA 58.01.03.013.07.c) 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. Other elements not included within this guidance section will be evaluated on a case-by-case basis.

4.2.1 Required Incorporation Elements

The following elements must be included within the 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 the Department of Environmental Quality's Water Quality Division Administrator (Director) or his/her designee per Idaho Code 30-3-99.
 - a. 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 4.2 or 4.10 of the Technical Guidance Manual.
- 2.3. Membership should be limited to property owners only.
- 3.4. Voting should be limited to one parcel/one full membership/one vote.
- 4.5. Voting rights should be restricted to members with improved property.
6. Voting rights should not be cancelled.
 - a. Exception to this is allowed in the event that an extended treatment package system 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.
- ~~5.8.~~ 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.
 - a. Annual financial reports should be made available to the membership upon request by individual members and through the annual membership meeting.
- ~~6.10.~~ Multiple-purpose organization funds generated are to be separately maintained, and funds from one account should not be available for another account's use.
11. The ~~organization~~ Nonprofit Entity should either own the system(s) it intends to maintain or have an access easement in place.
 - a. Access easements for extended treatment package systems should be executed through a membership agreement as outlined in section 4.2.3.
- ~~7.~~ Mutually agreeable access to those systems owned by the entity should be provided by the property owner.
- ~~8.12.~~ Membership (and shares) in the ~~entity~~ Nonprofit Entity must run with the land, and successive owners must acquire the preceding owner's membership or voting share(s).
- ~~9.13.~~ The purchaser ~~or~~ and any new member should be provided by the Nonprofit Entity with a copy of the Articles of Incorporation, By-Laws, Covenants, and Contracts (i.e., membership agreement, etc.) with the ~~entity~~ Entity.
- ~~10.14.~~ There should be no provisions restricting ownership of improved property.
15. The ~~entity~~ Nonprofit Entity should be capable of raising revenue by fixing setting and collecting user charges.
16. Board of Director Requirements:
 - a. For Extended Treatment Package System Nonprofit Operation and Maintenance 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.
 - i. 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 item 16.b is fulfilled.



b. The Board of Directors should include a minimum of three Board Member positions.

~~11.17.~~ The Board of Directors should be able to raise revenue for emergency operation and maintenance of community owned systems without majority vote.

18. The ~~organization~~ 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.

~~12.19.~~ **The Nonprofit Entity should provide an operation and maintenance manual that shall be approved by the Director.**

a. ~~An~~ The operation and maintenance manual ~~shall~~ should be ~~approved by the Director~~ provided to all new members for extended treatment package systems and shall include the monitoring requirements as outlined in ~~the~~ Section 4.10.2 "Extended Treatment Package System" Operation, Maintenance and Monitoring Conditions for Approval.

~~13.20.~~ Conditions for dissolution of the ~~organization~~ Nonprofit Entity should be specified. Dissolution should be limited to connection to a municipal wastewater treatment facility or merger with another approved ~~nonprofit~~ Nonprofit corporation Entity having management capability.

~~14.21.~~ Except as provided in item ~~1820~~, the ~~entity~~ Nonprofit Entity should not be able to vote itself out of existence.

22. ~~A~~ For Nonprofit Entities a third party (i.e., maintenance entity, service provider, etc.) should be identified to execute the specified operation and maintenance functions, ~~in the event the operating entity is incapable of performance.~~

a. **Service Providers for Nonprofit Entities overseeing extended treatment package systems 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.**

~~15.23.~~ The ~~entity~~ Nonprofit Entity should be able to plan and control how and at what time additional service functions will be extended or added.

~~16.24.~~ The Articles of Incorporation and/or By-Laws should provide for proxy voting.

~~17.25.~~ Proxies should not be binding on new purchasers.

~~18.26.~~ ~~The~~ For community systems the developer of the project should be required to contribute to the operation and maintenance until such time as the ~~nonprofit~~ Nonprofit corporation Entity is self-sustaining. Consider either a specified period of time or when a specified number of lots ~~has~~ have been sold.



27. The ~~organization~~ Nonprofit Entity should have a defined service area boundary.

4.2.2 Notification Requirements

The Nonprofit Entity shall notify the Director for any of the following reasons:

1. Any content changes that occur 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 their implementation. Any changes that conflict with any portion of section 4.2.1 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.

4.2.3 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 a required element 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. Title of the membership agreement should include the words *lien notice, access easement, member agreement, and the name of the Nonprofit Entity.*
2. Contact information for the Nonprofit Entity should be listed including 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, annual report submission, etc.).
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 understand its requirements.
- 4.9. 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.



4.2.4 Sampling Plans for Extended Treatment Package Systems

Nonprofit Entities formed for the purpose of maintaining, servicing, and testing Extended Treatment Package Systems shall develop a sampling plan for the testing of effluent (IDAPA 58.01.03.009.03). Sampling plans should contain the following elements:

1. A signed letter from the manufacturer of the treatment technology certifying that the sampling method provided is acceptable for their technology.
2. A 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 are in conformance with the latest edition of *Standard Methods for the Examination of Water and Wastewater*.
4. A way to collect all samples from a free flowing effluent pipe. Hose or portable water sources may be used to induce flowing condition but should be used as an option of 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 collection of a grab sample. These indicators should provide indication that the treatment unit is operating properly.



Appendix B

4.10 Extended Treatment Package System

Revision: ~~January 4, 2011~~ June 27, 2013

4.10.1 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 ~~primary clarifier~~ (septic tank). These systems provide secondary wastewater treatment capable of yielding high-quality effluent suitable for discharge in environmentally sensitive areas.

Extended Treatment Package Systems (ETPS) are required to have annual maintenance and effluent quality testing performed and reported to the Director as described within section 4.10 of the TGM (IDAPA 58.01.03.005.14). This maintenance is to be performed by an approved Operation and Maintenance Entity (O&M) (IDAPA 58.01.03.009.03). Property owners that install an ETPS unit must choose an O&M Entity capable of meeting their maintenance and effluent testing needs. Verification of the chosen O&M Entity shall be submitted with the subsurface sewage disposal permit application ensuring that the operation, maintenance, and monitoring (effluent quality testing) will occur (IDAPA 58.01.03.005.04.k). Property owners that do not want to meet these O&M requirements must meet the requirements of section 4.10.2(2) or choose another alternative system that will meet the conditions required for subsurface sewage disposal permit issuance.

4.10.2 ~~Operation, Maintenance, and Monitoring~~ Conditions for Approval

~~Procedures relating to operation, maintenance, and monitoring are required by IDAPA 58.01.03 (section 8.1) or may be required as a condition of issuing a permit, per IDAPA 58.01.03.005.14 (section 8.1) to ensure protection of public health and the environment.~~

1. A maintenance entity will be available to provide continued device operation and maintenance (O&M). Approval of the O&M Entity will be made by the Director ~~before~~ prior to the issuance of a permit. Approvable entities may include, but are not limited to, the following:
 - a. Municipal wastewater treatment departments
 - b. Water or sewer districts
 - c. Nonprofit Corporations (see section 4.2)

An O&M ~~Agreement~~ Entity membership agreement and an accompanying general access easement should be entered into between the property owner and the ~~Nonprofit~~ O&M Entity, 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. Extended Treatment Package Systems (ETPS) may be used for single family dwellings properties without an approved maintenance eO&M Entity **only under all of the following conditions:**
 - a. The site is acceptable for a standard system. All separation distances from ground water, ~~and~~ surface waters, and limiting layers, ~~and soil types~~ shall be met.
 - b. Enough land is available, and suitable, for two full-size drainfields. One complete full-size drainfield shall be installed.
 - ~~e. A state approved effluent filter shall be used at the outlet of the package treatment system and before the drainfield.~~
3. Final effluent disposal through subsurface discharge will meet the following criteria:
 - ~~d. Surface discharge. System owner will apply for a National Pollution Discharge Elimination System Permit (NPDES) from the United States Environmental Protection Agency (EPA). Effluent quality will meet the applicable requirements of the "Water Quality Standards" (IDAPA 58.01.02), "Wastewater Treatment Requirements" (IDAPA 58.01.16), and all other applicable regulations.~~
 - ~~e. Ground water discharge. Effluent quality will meet the applicable requirements of the "Ground Water Quality Rule" (IDAPA 58.01.11), "Wastewater Rules" (IDAPA 58.01.16), and all other applicable regulations. Total Nitrogen discharge shall not exceed that specified in the development's Nutrient Pathogen (NP) Study in order to prevent the ground water from exceeding the "Ground Water Quality Standard" for nitrates (IDAPA 58.01.11.200.01.a) and to maintain and protect the existing and projected future beneficial ground water uses (IDAPA 58.01.11.006.02).~~
 - a. Subsurface discharge. If an 85% reduction or better in Carbonaceous Biological Oxygen Demand (CBOD₅) and Total Suspended Solids (TSS) can be achieved, then the effluent may be discharged to a drainfield satisfying the Intermittent Sand Filter (section 4.23.5) ~~or the Recirculating Gravel Filter Gravity Disposal Trenches (section 4.22.5)~~ application rate criteria and vertical setback requirements.
 - i. Otherwise, the effluent must be discharged to a standard drainfield, sized as directed in IDAPA 58.01.03.008 (section 8.1) and meeting the required effective soil depth for standard drainfields as directed in IDAPA 58.01.03.008.02.
 - ~~ii.~~ Additional drainfield sizing reduction granted for use of gravelless trench products is not allowed.
 - ~~f.b. The 85% reduction is a qualitative criterion.~~ The 85% reduction will be accepted as being met if the effluent exhibits a quantitative value obtained from laboratory analysis not to exceed 40 milligrams per liter (mg/L) (40 parts per million [ppm]) CBOD₅ and 45 mg/L (45 ppm) TSS.



4.c. Total Nitrogen (TN) reduction may be required for ETPS units located in an area of concern as determined through a Nutrient-Pathogen (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 + [NO₃+NO₂-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.

4.10.3 Operation, Maintenance, and Monitoring

Procedures relating to operation, maintenance, and monitoring are required by IDAPA 58.01.03.009.03 (section 8.1) or may be required as a condition of issuing a permit, per IDAPA 58.01.03.005.14 (section 8.1) to ensure protection of public health and the environment.

1. Operation and Maintenance

- a. Annual maintenance shall be performed on the ETPS unit as described in the ETPS manufacturer's operation and maintenance manual for the ETPS model as submitted under section 4.2.19.
- b. Additional maintenance not specified in the operation and maintenance manual may be required to ensure the ETPS functions properly.
- c. Records of each maintenance visit shall be kept and should include the following information for the primary maintenance visit:
 - i. Date and time.
 - ii. Observations for objectionable odors.
 - iii. Observation for surfacing of effluent from the treatment unit or drainfield.
 - iv. Notation as to whether the system was pumped since the last maintenance visit including the portions of the system pumped, pumping date, and volume.
 - v. Sludge depth and scum layer thickness in the primary septic tank and treatment unit.
 - vi. If responding to an alarm event provide the cause of the alarm and any maintenance necessary to address the alarm situation.
 - vii. Field testing results for any system effluent quality indicators included in the approved sampling plan as submitted under section 4.2.4 or as recommended in section 4.10.3.2.b.
 - viii. Record of any cleaning and lubrication.
 - ix. Notation of any adjustments to control settings or equipment.



- x. Test results for pumps, switches, alarms, blowers, etc.
- xi. Notation of any equipment or component failures.
- xii. Equipment or component replacement including reason for replacement.
- xiii. Any recommendations for future service or maintenance and reasoning.
- d. Any maintenance visit occurring after the primary annual maintenance visit should only record and address the reason for the visit and the associated activities that occur.

2. Monitoring

- a. Annual effluent monitoring will be required for all ETPS units that discharge to a reduced size drainfield, to a drainfield with a reduced separation distance to ground-water limiting layers, and/or to a drainfield located in an environmentally sensitive area (area of concern).
 - i. Annual monitoring included in the Annual Report must occur within the reporting period.
- b. It is recommended that prior to collecting effluent samples from the treatment unit for laboratory analysis that effluent quality indicators be field tested as described in the approved sampling plan for the O&M Entity. All recommendations included in 4.10.3.2.b are recommendations only and should be verified with the treatment technology manufacturer 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:
 - i. Visual examination for wastewater color, odor, and effluent solids.
 - ii. The following constituents:

<u>Constituent</u>	<u>Acceptable Range</u>
<u>pH</u>	<u>6 to 9</u>
<u>Dissolved Oxygen (DO)</u>	<u>≥ 2 mg/L</u>
<u>Turbidity</u>	<u>≤ 40 NTU</u>

Table 4-5. Recommended field testing constituents for effluent quality indication.

- c. Monitoring samples provided to a laboratory will analytically quantify that the units are operating in compliance, provided samples do not exceed 40 mg/L (40 ppm) for CBOD₅ and 45 mg/L (45 ppm) for TSS.
 - i. Results for CBOD₅ and TSS that exceed these levels indicate the pretreatment device-ETPS unit is not achieving the required reduction levels. ~~CBOD₅ monitoring will replace Biological Oxygen Demand (BOD₅) monitoring effective January 1, 2008.~~
- b-d. For those systems installed in areas of concern, including nitrogen sensitive areas, or are used to fulfill NP Study-Evaluation results and requirements, the following additional constituents may be monitored as stipulated on the permit:



- i. ~~a)~~ Total Kjeldahl Nitrogen (TKN)
 - ii. ~~b)~~ Nitrate-Nitrite nitrogen (NO₃+NO₂-N)
 - iii. ~~e)~~ Results for Total Nitrogen (TN = TKN + [NO₃+NO₂-N]) that exceed the levels stipulated on the installation permit, in the subdivision approval for sanitary restrictions release, or the approved NP Study Evaluation, indicate that the device is failing to achieve the required reductions
- ~~e.~~ Laboratory results that exceed the numerical Total Nitrogen values specified in the Total Nitrogen column of Table 8-1 (section 8.6) indicate that the treatment device is not achieving the required percent nitrogen reduction, specified in the Total Nitrogen Reduction (%) column of Table 8-1.
- e. 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.
- i. Each sample will have a Chain-of-Custody sheet, 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(s).
 - ii. The Chain-of-Custody sheet should also specify the laboratory analyses to be performed on the sample(s).
 - ~~i-iii.~~ Sample storage and transport will take place in appropriate containers under appropriate temperature control.
- ~~d.~~ Samples will be required to be analyzed by a certified laboratory capable of analyzing wastewater according to the acceptable standards identified below, and the monitoring results will be submitted as part of the Annual Report to the local health district. ~~The annual report shall be submitted no later than July 31 of each year for the preceding 12 month period. Reporting period is from July 1 of the preceding year through June 30 of the reporting year.~~
- i. Analysis of ETPS effluent shall be performed using the following standards from the *Standard Methods for the Examination of Water and Wastewater* (NSF utilizes the same standards in their Standard 40 and 245 evaluations):

<u>Analysis</u>	<u>Standard Method Number</u>
<u>Total Suspended Solids (TSS)</u>	<u>SM 2540 D</u>
<u>Carbonaceous Biological Oxygen Demand (CBOD₅)^a</u>	<u>SM 5210 B</u>
<u>Total Kjeldahl Nitrogen (TKN)</u>	<u>SM 4500-NH₃ C</u>
<u>Nitrate-Nitrite Nitrogen (NO₃ + NO₂-N)</u>	<u>SM 4500-NO₃⁻ F</u>

a – Person requesting the analysis from the lab must specify the CBOD₅ on the Chain-of-Custody paperwork. Table 4-6. Standard methods required to be utilized for the analysis of ETPS effluent in annual testing.

- ii. Annual reports submitted with laboratory analysis results differing from these standard methods will be rejected.



g. Samples failing to achieve the required effluent constituent levels shall require:

i. Additional operations and maintenance ~~will be required~~ for devices that fail to achieve the above reductions.

ii. Additional sampling ~~will be required~~ to demonstrate the operation and maintenance performed successfully restored the treatment system to proper operation.

1. Sample extraction and analysis should occur within 30 days after servicing the system.

~~1.2.~~ A maximum of three ~~servicing and subsequent monitoring~~ sampling events, within 90 days, 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* (Figure 4-8).

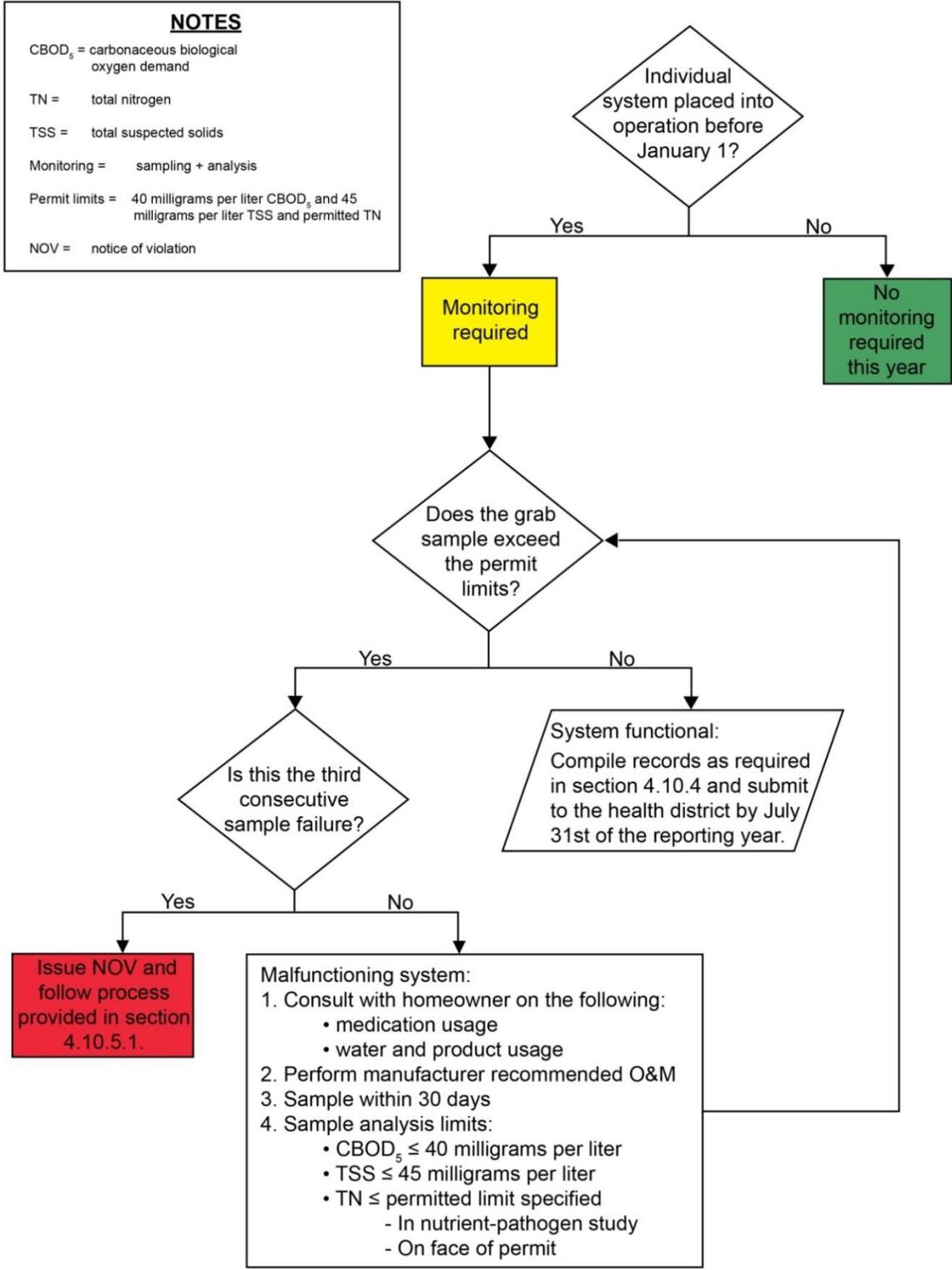


Figure 4-8. ETPS unit individual system sampling process.



4.10.4 Annual Report

The 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 (member), it is recommended that the property owner have their O&M Entity compile and submit their annual report. The property owner responsible under the Individual/Subsurface Sewage Disposal Rules for the ETPS unit shall ensure that the following annual reporting requirements are met:

1. The Annual Report for each property owner shall include the following items:
 - a. A copy of all maintenance records for the reporting period as required under section 4.10.3.1.
 - b. A copy of all certified laboratory records for effluent sampling.
 - c. A copy of each Chain-of-Custody record associated with each effluent sample.
2. If the O&M Entity is fulfilling annual reporting requirements for their members it is recommended that the following additional information be included within the annual report:
 - a. A current list of all members of the O&M Entity within the health district to which the Annual Report was submitted.
 - b. The member list should clearly identify which members the O&M Entity is contracted with for annual reporting requirements and the status of each member in regards to completion of the Annual Reporting requirements.
 - c. If Annual Reporting requirements are not complete for any given member for whom the O&M Entity is responsible for providing the Annual Report an explanation should be included with that member's records within the Annual Report.
3. Annual Report Exemptions:
 - a. A member may be exempt from effluent testing based upon extreme medical conditions.
 - ~~The member's Annual Report must include a doctor's note indicating that a resident of the property has been prescribed medication for the reporting period that will prevent the ETPS unit from testing correctly.~~
 - i. Annual service and maintenance on the member's ETPS unit shall not be exempt due to medical conditions and record of annual service and maintenance shall still be submitted with the member's Annual Report.
 - b. An O&M Entity contracted by a member to fulfill Annual Reporting requirements may be exempt from reporting annual service and testing results for individual members if that member's activities fall under section 4.10.6 of this manual.



- i. The O&M Entity should still report the activities described under section 4.10.6 of this manual for each member exempt from annual reporting through this section.

4. The annual reporting process:

- a. The annual report shall be submitted by the property owner or the O&M Entity on behalf of their member no later than July 31 of each year for the preceding 12-month period to the local health district.

- i. The Annual Reports shall be submitted to the local health district that issued the subsurface sewage disposal permit for, and has jurisdiction over, the ETPS unit.

- b. The local health district shall provide the O&M Entity a written response within 30 days of receipt of the Annual Report detailing compliance or non-compliance with septic permit requirements.

- i. The O&M Entity should inform individual members of their compliance status.

- ii. All correspondence from the health districts regarding a noncompliant Annual Report shall be copied to DEQ.

5. Delinquent Annual Reports:

- a. If the property owner or their O&M Entity contracted to submit the member's Annual Report does not submit the Annual Report by July 31st of the reporting year the local health district shall send the property owner, or O&M Entity contracted to submit the member's Annual Report, a reminder letter providing a secondary deadline for annual report submission of August 31st of the reporting year. The reminder letter shall detail the report requirements and that failure to submit the Annual Report by the secondary deadline will result in the district forwarding a notice of non-report to DEQ. DEQ may seek any remedy available under the Individual/Subsurface Sewage Disposal Rules, including without limitation requiring the property owner to replace the ETPS unit with another system, as outlined in section 4.10.5.

- ii.i. All correspondence from the health district regarding delinquent Annual Reports shall be copied to DEQ.

4.10.5 ETPS System Failure, Disapproval, and Reinstatement

Commercially manufactured wastewater treatment components must be approved by DEQ (IDAPA 58.01.03.009.01). Manufactured ETPS units are subject to this approval. In addition, the installation of an ETPS unit requires a subsurface sewage disposal permit pursuant to IDAPA 58.01.03.005. ETPS units are alternative systems that must be approved by the Director pursuant to IDAPA 58.01.03.004.10. As part of the alternative system approval for ETPS units DEQ



defines the specific circumstances under which the ETPS units may be installed, used, operated, and maintained within section 4.10 of the TGM (IDAPA 58.01.03.009.03 and 58.01.03.005.14).

If an ETPS product is not shown to be installed, used, operated, or maintained as described within section 4.10 of the TGM DEQ may pursue enforcement against a property owner and seek those remedies available under IDAPA 58.01.03. Enforcement and remedies against a property owner may include a determination that the ETPS system has failed and the requirement that the property owner replace the ETPS unit with a different system authorized by DEQ. This may include the installation of another ETPS unit approved by DEQ or the engineering and installation of another alternative system that is capable of meeting the requirements of the property owner's subsurface sewage disposal permit. If an ETPS product is not shown to be in compliance or to consistently function in compliance with IDAPA 58.01.03 and the operation and maintenance requirements outlined in section 4.10 of the TGM, DEQ may disapprove the ETPS unit. Reasons for DEQ enforcement, which may include seeking remedies against a property owner or disapproval of an ETPS manufacturer's technology as outlined herein, but are not limited to, the following:

1. Failure to submit an Annual Report by the secondary deadline of August 31st.
2. If an O&M Entity's the Annual Reports for a particular ETPS technology identifies a malfunctioning system rates of 10% or more,
 - a. Malfunctioning systems are defined as any system that fails to receive annual maintenance or exceeds the effluent reduction levels for any constituent required as part of the septic permit (i.e., TSS, CBOD₅, or TN).
3. If a property owner's ETPS unit has been determined to be a failing system.
 - a. Failing ETPS units are defined in section 4.10.3(2)(g).

4.10.5.1 Failing System Enforcements

The regulatory authority shall follow the following procedures upon determination that an ETPS unit is a failing system (Figure 4-9):

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 in which 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 service the ETPS unit at least monthly.
 - b. Monthly effluent samples should be required to be taken by the O&M Entity until the ETPS unit passes 3 consecutive monthly samples.



- i. Three consecutive passing monthly samples taken one month apart from one another would be cause for the regulatory authority to terminate the consent order and NOV, and reclassify the system as compliant.
- c. Operation and Maintenance records as described in section 4.10.3.1, certified laboratory records, and Chain-of-Custody records for each sample should be submitted to the regulatory authority on a monthly basis as part of the consent order.
- d. If the ETPS unit is not capable of producing 3 consecutive monthly samples over the 12 month period the system shall be replaced with another alternative system capable of meeting the effluent quality requirements based upon applicable site conditions.
- ~~a-c.~~ Appropriate replacement systems may include a sand mound with 24 inches of sand beneath the absorption bed, intermittent sand filter, recirculating gravel filter, or a different ETPS unit that is approved and has an active O&M Entity.



NOTES

NOV = notice of violation
 O&M = operational maintenance
 Permit limits = 40 milligrams per liter CBOD₅ and 45 milligrams per liter TSS and permitted TN
 CBOD₅ = carbonaceous biological oxygen demand
 TSS = total suspended solids
 TN = total nitrogen

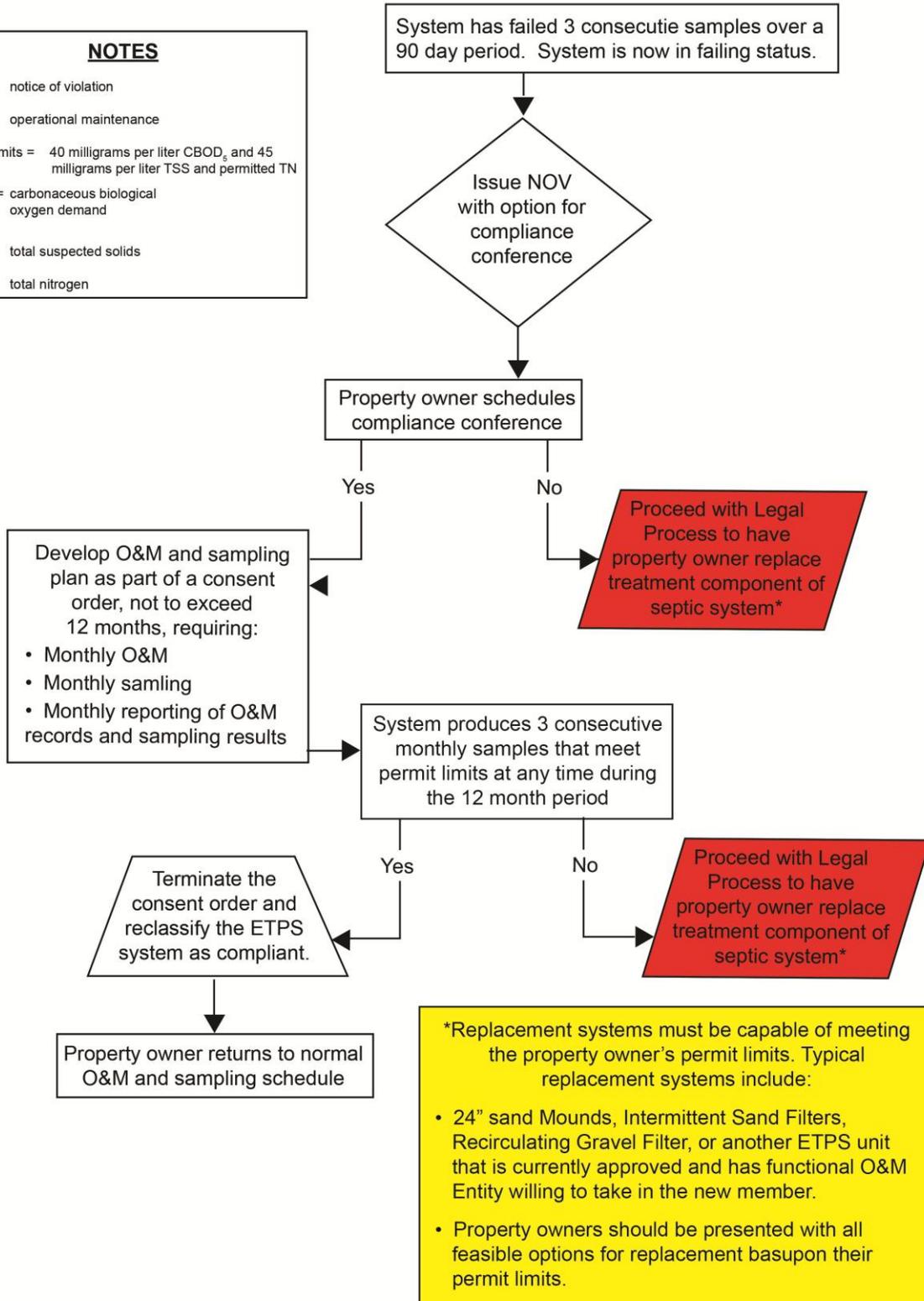


Figure 4-9. ETPS failing system enforcement flowchart.



4.10.5.2 ETPS Product Disapproval

In addition to determining a particular system is a failing system as set forth in section 4.10.5.1, if DEQ determines that an ETPS unit cannot consistently function in compliance with IDAPA 58.01.03, DEQ may disapprove the product (IDAPA 58.01.03.009.04). A notice of DEQ's intent to disapprove the product will be detailed in writing following Idaho Code, title 67, chapter 52, and sent to the ETPS product manufacturer, O&M Entity, and the health districts. The ETPS manufacturer will be allowed an opportunity to respond prior to product disapproval. Upon disapproval of an ETPS product the health districts shall not issue septic system permits on new applications for ETPS systems from the disapproved product manufacturer supplied by a specific O&M Entity. Monitoring, reporting, and servicing requirements of existing ETPS unit installations will not be affected by the product disapproval (Figure 4-10).

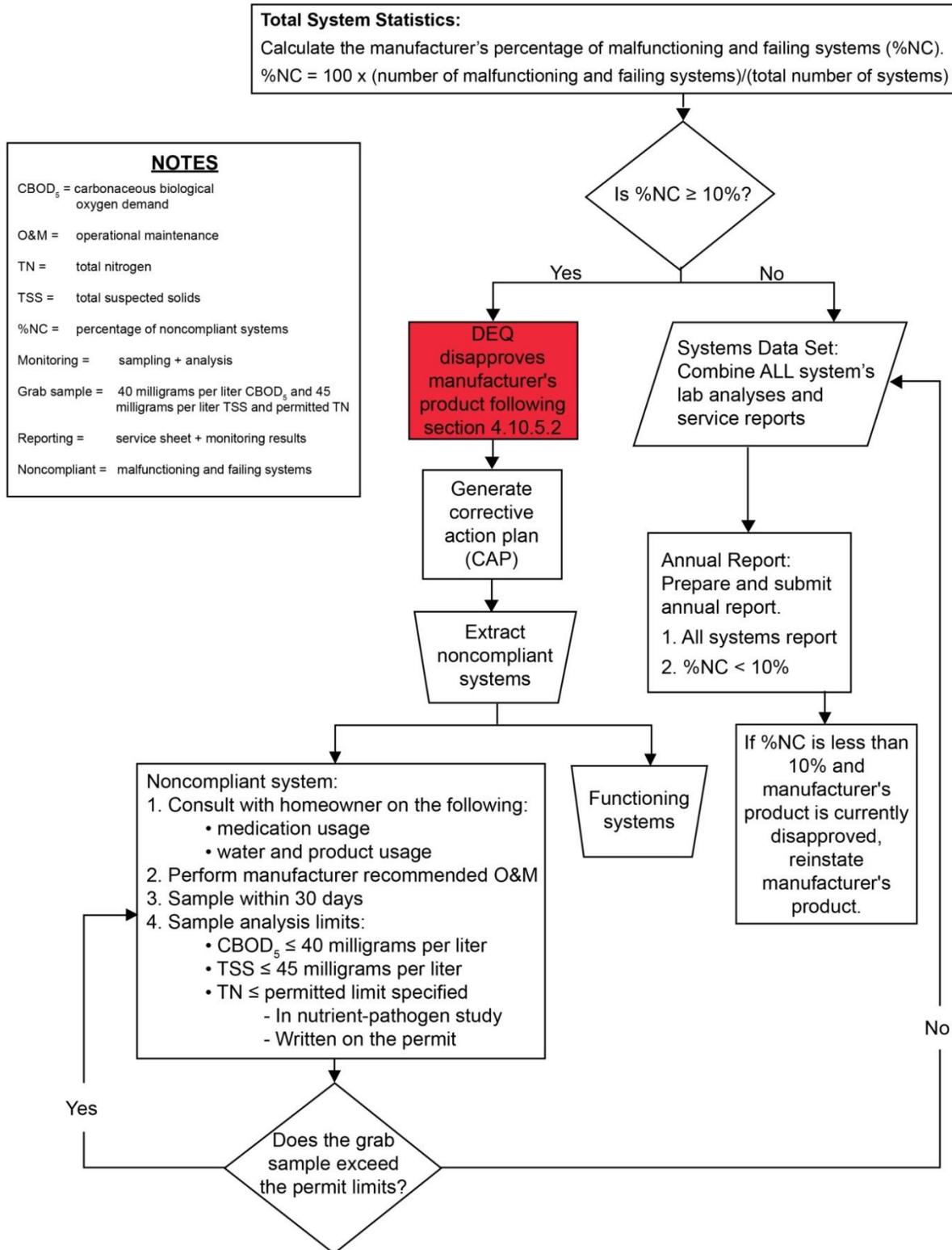


Figure 4-910. ETPS product disapproval process based upon annual reports.



4.10.5.3 ETPS Product Reinstatement

Upon ETPS product disapproval DEQ will provide the opportunity for the ETPS product manufacturer to enter into a Corrective Action Plan (CAP) for the purposes of product reinstatement. The CAP should establish the time frame to return the noncomplying or failing systems to proper operation. The suspension product disapproval will remain in effect until the malfunctioning and failing system rate for the ETPS manufacturer's technology is below 10%.

4.10.6 Member Refusal of Maintenance or Testing Requirements

It is the responsibility of the individual Nonprofit O&M Entity members (property owners) to ensure the O&M Entity is capable of performing the necessary annual maintenance and effluent testing required for their ETPS unit. Failure of an individual member to permit the O&M Entity from carrying out the required services is considered a violation of IDAPA 58.01.03.012.01. The following activities from a property owner toward their O&M Entity may be considered as refusal of service actions by a member, and may not be limited to:

1. Refusal to allow annual maintenance or effluent quality testing (e.g., refusal to pay annual dues preventing the financial capability of service, denial of property access, etc.).
2. Refusal to maintain the ETPS unit in operating condition (e.g., refusal to replace broken components, refusal to provide electricity to the unit, etc.).
3. If the refusal of service continues through the Annual Reporting Period the Nonprofit O&M Entity should substitute the following documents in the Annual Report for members refusing service that the O&M Entity is contracted with to submit their Annual Report:
 - 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 member through non-payment should include documentation of a lien being placed on the member's property.
 - i. If the documentation is not included within the Annual Report, there will be insufficient documentation of the property owner's refusal to allow maintenance and monitoring, and therefore, the lack of maintenance and monitoring may count against the malfunctioning rate for the ETPS technology.

4.10.6.1 Refusal of Service Enforcement Procedures

Upon receipt of an Annual Report that shows that individual O&M Entity members have refused to allow maintenance and monitoring as set out in section 4.10.6 of this guidance the following guidelines shall apply:

1. The regulatory authority shall issue Letter 1 and the associated enclosure that was provided in the DEQ Program Directive dated xxxx.



- a. This letter shall be sent to the property owner via certified mail and copied to the associated O&M Entity.
 - b. It is the property owner's responsibility to work with the regulatory authority and their O&M Entity to address their delinquent responsibilities. The O&M Entity should contact the regulatory authority and associated property owner 30 days after receipt of Letter 1 informing the regulatory authority of the property owner's voluntary compliance status.
2. If the property owner fails to voluntarily comply within the 30 day timeframe the regulatory authority shall issue Letter 2 that was provided in the DEQ Program Directive dated xxxx.
 - a. This letter shall be sent to the property owner via certified mail and copied to the associated O&M Entity.
 - b. It is the property owner's responsibility to work with the regulatory authority and their O&M Entity to address their delinquent responsibilities. The O&M Entity should contact the regulatory authority and associated property owner by the voluntary compliance date provided within Letter 2 informing 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 step 2 of this process the regulatory authority shall issue a Notice of Violation to the property owner to ensure compliance with the property owner's subsurface sewage disposal permit requirements in regards to the ETPS unit.
- ~~1. DEQ will suspend the O&M Entity and require that the O&M Entity, affected homeowners, and service provider, in cooperation with the local health district, enter into a Corrective Action Plan (CAP). The CAP should establish the time frame to return the noncomplying systems to proper operation. The suspension will remain in effect until the malfunctioning system rate is below 10%. Suspension will only prevent issuing additional O&M agreements. Existing system monitoring, reporting, and servicing requirements will not be affected by a suspension (Figure 4-9).~~
- ~~4. If the system is experimental, the system owner will provide a waiver of liability absolving the Department and the health districts of any liability arising from operation or malfunction of the system.~~



4.10.34.10.7 Design of ETPS Units

Procedures relating to design are required by IDAPA 53.01.03 (section 8.1) 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 Bureau.
3. Design for each specific application should be provided by a PE licensed in the State of Idaho ~~specializing in environmental or sanitary engineering~~.
4. The system's aerobic treatment section will be preceded by ~~a primary clarifier~~ an appropriately sized septic tank. The ~~primary clarifier~~ 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. The ~~primary clarifier~~ 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 hydraulic residence time (HRT) as stipulated in IDAPA 58.01.03.007.07.b. 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.
- 4.5. ~~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.:~~
 - a. ~~Has successfully completed National Sanitary Foundation (ANSI/NSF) standard 40 testing, or~~
 - b. ~~Has successfully completed an EPA-sanctioned Environmental Technology Verification (ETV) test, or~~
 - e.d. ~~Was designed by a PE licensed in the State of Idaho~~ specializing in sanitary or environmental engineering.

4.10.44.10.8 Construction

Procedures relating to construction are required by IDAPA 58.01.03 (section 8.1) or may be required as permit conditions, as appropriate, to ensure the protection of public health and the environment.

1. Installation
 - a. ~~The system shall be installed by an appropriately qualified installer. IDAPA 58.01.03.003.35 defines system as "Beginning at the point of entry~~



~~physically connected piping, treatment devices, receptacles, structures, or areas of land designed, used or dedicated to convey, store, stabilize, neutralize, treat, or dispose of blackwaste or wastewater.” Consequently, the system includes the drainfield.~~

- 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 the State of 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.
- e-d. A sample port will be installed in the effluent line after the aerobic treatment unit.

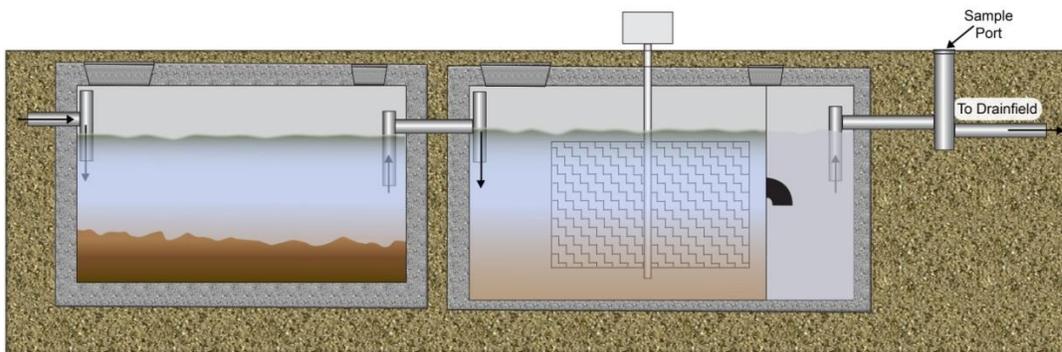


Figure 4-11. Sampling port example.

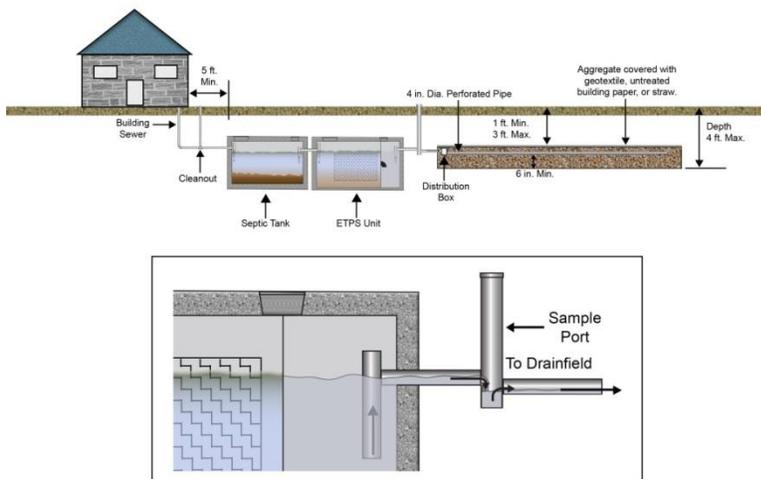


Figure 4-12. Sampling port and drainfield.



2. Within ~~90-30~~ days of completing the installation the property owner shall provide certification to the regulatory authority, from their O&M Entity, that the system has been installed and is operating in accordance with ~~design and/or~~ 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.
- a.b. The regulatory authority shall hold the finalization of the subsurface sewage disposal permit until the certification of proper installation and operation is received.

~~Note: If a health district has questions regarding application of this guidance document to a proposed system, contact DEQ.~~

Figure 4-8 shows the ETPS sampling process for an individual system, ~~and~~ Figure 4-9 shows the reporting enforcement process for ~~an O&M Entity~~ a failing system, Figure 4-10 shows the ETPS product disapproval process, Figure 4-11 shows the placement of a sampling port after the ETPS unit, and figure 4-12 shows the sample port and drainfield after the septic and treatment tank.



Appendix C

Dear Extended Treatment Package System Owner,

The Department of Environmental Quality (DEQ) would like to take this opportunity to provide some information about the treatment component of your septic system. This is a reminder of the annual service and testing of the treatment unit that is vital to your system's performance, drainfield life, and required as a condition of your septic permit. Improper operation and maintenance could lead to premature failure and costly replacement of your drainfield. The issuance of the septic permit for your property required a treatment component in order to install the drainfield. Without the septic permit the construction of buildings necessitating sewer connections on your property would not be possible.

Extended Treatment Package Systems provide pretreatment to your wastewater prior to its discharge to the drainfield portion of your septic system. These treatment units reduce waste strength and nutrients (particularly nitrogen) in wastewater. For more information on these systems and your drainfield please view the *Aerobic Treatment Systems and Drainfields: What You Need to Know* brochure on the DEQ website located at

http://www.deq.idaho.gov/media/657393-aerobic_treatment_systems_and_drainfields_brochure.pdf.

Per your member agreement contract you are required to work with your Operation and Maintenance Entity and Service Provider to ensure that annual servicing and testing of your treatment unit is scheduled. Protection of public health and the environment is a team effort. Your participation in this program is a critical aspect to its success and is a requirement of the septic system permit for your property.

Thank you for your cooperation.

Sincerely,

The Idaho Department of Environmental Quality



Appendix D

November 12, 2013

[Certified Mail No.]

[Name]
[Address]
[City, State]

Re: Extended Treatment Package System Service, Maintenance, and Testing

Dear [Name],

It has come to our attention that you have not had your [insert manufacturer's name] extended treatment package system (ETPS) [maintained and/or tested] for this reporting year. The subject property is located at [address or legal description]. It is a requirement of the septic permit issued for your property that the ETPS unit has annual maintenance performed and the effluent quality tested through your Operation & Maintenance Entity (O&M Entity) and the O&M Entity's associated Service Provider. According to our records your O&M Entity and Service Provider contacts are:

O&M Entity:

Entity Contact Name
Entity Business Name
Entity Address
Phone Number

Service Provider:

SP Name
SP Business
SP Address
Phone Number

Your ETPS unit is under contract with this O&M Entity through a Member Agreement. This agreement is recorded with your County. It is the homeowner's responsibility to ensure the ETPS unit is provided with maintenance, and that the effluent quality discharged from the unit is tested annually. Failure to have annual maintenance performed and effluent quality tested for your ETPS unit places you in violation of the Subsurface Sewage Disposal Rules. Please work with your O&M Entity to schedule your annual maintenance and effluent quality testing. If you have any questions regarding your Member Agreement or the necessary requirements to schedule your maintenance and testing appointment please contact your O&M Entity. If you have questions concerning regulatory requirements regarding your ETPS system please contact [insert health district name] at [insert phone number]. Your cooperation in meeting the requirements of your septic permit is appreciated.

Sincerely,

[Regulator Name]
[Regulator Title]

c: [O&M Entity]

| Enclosure



State of Idaho
Department Of Environmental Quality
Technical Guidance Committee

Dear Extended Treatment Package System Owner,

The Department of Environmental Quality (DEQ) would like to take this opportunity to provide some information about the treatment component of your septic system. This is a reminder of the annual service and testing of the treatment unit that is vital to your system's performance, drainfield life, and required as a condition of your septic permit. Improper operation and maintenance could lead to premature failure and costly replacement of your drainfield. The issuance of the septic permit for your property required a treatment component in order to install the drainfield. Without the septic permit the construction of buildings necessitating sewer connections on your property would not be possible.

Extended Treatment Package Systems provide pretreatment to your wastewater prior to its discharge to the drainfield portion of your septic system. These treatment units reduce waste strength and nutrients (particularly nitrogen) in wastewater. For more information on these systems and your drainfield please view the *Aerobic Treatment Systems and Drainfields: What You Need to Know* brochure on the DEQ website located at

http://www.deq.idaho.gov/media/657393-aerobic_treatment_systems_and_drainfields_brochure.pdf.

Per your member agreement contract you are required to work with your Operation and Maintenance Entity and Service Provider to ensure that annual servicing and testing of your treatment unit is scheduled. Protection of public health and the environment is a team effort. Your participation in this program is a critical aspect to its success and is a requirement of the septic system permit for your property.

Thank you for your cooperation.

Sincerely,

The Idaho Department of Environmental Quality



Appendix E

November 12, 2013

[Certified Letter No.]

[Name]
[Address]
[City, State]

Re: Voluntary Deadline to Comply with ETPS Maintenance and Effluent Testing Requirements

Dear [Name],

[Regulatory Agency Name] has been informed that you are refusing to meet your responsibility and requirements surrounding your [insert manufacturer's name] extended treatment package system (ETPS). As described in this Department's letter sent to you dated [insert letter 1 date] you are responsible for having annual maintenance performed on your ETPS unit and for annual testing of effluent quality discharged by the unit. Per *IDAPA 58.01.03.002.04.a.i* it is the responsibility of the property owner to treat and dispose of wastewater generated on their property in accordance with their subsurface sewage disposal permit.

You are responsible for the completion of your unit's annual maintenance and effluent quality testing. The results of the annual maintenance and testing are required to be submitted to this Department by July 31st of each year. As of the issuance of this letter you are delinquent in meeting these requirements by [insert number of days past July 31st]. This Department is providing you a 30 day window to voluntarily meet the requirements and responsibilities of your septic permit (see enclosure). You have until [insert voluntary compliance date] to accomplish your required annual maintenance and effluent quality testing. **After this date this Department may issue a Notice of Violation to you for failure to meet the requirements of *IDAPA 58.01.03.002.04.a.i, 58.01.03.004.01, 58.01.03.005.14, and 58.01.03.012.01-03.*** To view the requirements of these Rules please reference the Individual/Subsurface Sewage Disposal Rules located at <http://www.deq.idaho.gov/water-quality/wastewater/septic-systems.aspx>.

Please contact your O&M Entity to schedule your required annual maintenance and testing of effluent quality.

O&M Entity:

Entity Contact Name
Entity Business Name
Entity Address
Phone Number

Your O&M Entity should report the status of the completion and compliance of these activities on [insert voluntary compliance date]. Your cooperation in meeting the requirements of your septic permit is appreciated.



State of Idaho
Department Of Environmental Quality
Technical Guidance Committee

Sincerely,

[Regulator Name]

[Regulator Title]

c: [O&M Entity]
[County Prosecuting Attorney]

Enclosure (septic permit and member agreement)



Appendix F

1.4.2.2 Extended Treatment Package System Approvals

Manufacturers seeking approval of an Extended Treatment Package System (ETPS) technology shall submit product information to the DEQ On-Site Wastewater Coordinator for review by DEQ. In addition to product information (i.e., engineering designs and product manuals) manufacturers seeking approval on their ETPS units for reduction of Total Suspended Solids (TSS) and Carbonaceous Biological Oxygen Demand (CBOD₅) will need to submit National Sanitation Foundation (NSF)/American National Standards Institute (ANSI) Standard 40 and 360 approvals, reports, and associated data. Manufacturers also seeking approval on their ETPS units for reduction of Total Nitrogen (TN) will need to submit NSF Standard 245 approvals, reports, and associated data. Any additional third party standards evaluated for the ETPS unit will also need to be submitted including approvals, disapprovals, reports, and associated data.

DEQ will issue ETPS product approval in conjunction with associated reduction levels for TSS, CBOD₅, and TN. Reduction levels will be determined through statistical analysis of the data included in the third party standards. Third party reports average reduction values will not be accepted to establish system performance approvals. The third party data will be statistically evaluated to determine a resulting value that corresponds to the 95% upper confidence limit. The resulting value that corresponds to the 95% upper confidence limit will be used as the system's initial performance limit.

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 Experimental System guidance in Section 4.9. ETPS units installed under the Experimental System guidance in an attempt to gain approval for effluent reduction levels shall follow the minimum operation, maintenance, and effluent testing procedures outlined in Section 4.10.3, and be installed in an area suitable for a standard system with no reduction in drainfield sizing or separation distance requirements. Operation, maintenance, and effluent testing requirements shall be written into the experimental system's permit.

To obtain approval for TSS, CBOD₅, or TN reduction without third party data, or to lower reduction levels from initial approval for any constituent, the manufacturer of the ETPS unit or their representative must submit data from their ETPS units installed in Idaho. 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. All maintenance and effluent testing records, as described in Section 4.10.3, obtained over this period must be submitted for review. For adjustment in reduction levels of effluent constituents to be approved the data must show that 90% of the installed units have successfully maintained effluent reduction levels at or below the desired reduction approval level during the entire testing period.

Prior to product approval manufacturers must have an Operation and Maintenance Entity setup for their ETPS units as described in section 4.2 of the TGM prior to any non-experimental permits being issued for system installation. The Operation and Maintenance Entity must be capable of fulfilling the requirements of section 4.2 and 4.10 of the TGM prior to product approval.



Appendix G

See the following pages for the On-Site Setback Distance Determination: Modeling Phosphorous in the Environment as the Critical Constituent document.