

**TECHNICAL GUIDANCE COMMITTEE  
FOR INDIVIDUAL AND SUBSURFACE SEWAGE DISPOSAL**

**April 19, 2005 MEETING MINUTES**

**PRESENT:** Roger Albright, License Installer, R.H. Albright Excavation  
Ken Babin, Supervisory REHS, PHD  
Joe Canning, P.E., B&A Engineers  
Brian Crawford, Senior EHS, SWDHD  
A.J. Maupin, P.E., IDEQ, Water Quality Division, Wastewater Program  
Steve Pew, Environmental Health Director, SEDHD

**GUESTS:** Barry Burnell, REHS - DEQ  
Sam Carter, Orenco Systems, Inc.  
Jay Holman, Infiltrator Systems, Inc.  
Blake Johnston, Infiltrator Systems, Inc.  
Dave Lentz, Infiltrator Systems, Inc.  
Mike Reno, REHS – CDHD  
Steven Rule, Power Pump  
Allen Worst, Power Pump

The meeting was called to order at 8:30 am April 19, 2005. A sign in sheet was provided for the Committee and guests to sign in. The guests were asked to indicate if they were interested in presenting to the committee. Introductions were made for the new TGC members, and then all other present at the meeting introduced themselves.

**December 2, 2003 TGC minutes - review, amend, and accept.**

The Committee did not receive the December 3, 2003 TGC meeting minutes in time for review. The December 3, 2003 minutes contain TGM changes, specifically changes to the Sand Mound section and addition of a Total Nitrogen Reduction Policy, that require public comment. Ken Babin moved that the committee post the minutes and review the comments at the next TGC meeting. Joe Canning seconded the motion. The committee voted in favor of the motion.

**TGC Preliminary Approval Reviews for Final Approval**

None provided due to late posting of prior meeting minutes.

**Product Reviews**

**1. Consolidated Treatment Systems, Inc., ENV-0.75 Wastewater Treatment System**

The committee evaluated information provided by Adriana Greco, Certification Project Manager, Wastewater Treatment Unit Program of the National Sanitary Foundation (NSF). The package contained the "Evaluation Report in Support of a Design Change" for the Consolidated Treatment Systems, Inc., ENV-0.75 Wastewater Treatment System. The report's publication date is December, 2004. The system's dosing capacity was limited to 250 gallons per day (GPD), relegating the application of this system to 3 bedroom homes & smaller. A motion to accept the system configuration changes was proposed, seconded, and the motion unanimously passed.

## 2. Infiltrator Systems, Inc.

The committee reviewed requests for approval for two (2) modified chamber products; 1. Standard Infiltrator Chamber – Quick4™, and (2) Equalizer® 36 Chamber – Quick4™ Equalizer 36 Chamber. The major changes are:

1. Reduced length from 6.4 feet to 4.0 feet to ease installation,
2. Redesigned section attachment configuration,
  - a) allows 10° articulation on the Equalizer 36 Chamber, and
  - b) 15° articulation on the Quick4™,
3. Equalizer 36 Chamber height is one (1”) inch shorter, but the louvers extend up higher,
4. Louver’s configuration changed to reduce soil penetration,
5. Soil masking footprint increases by 0.1 ft<sup>2</sup>/ft,
6. New Multi-Port end caps add 2.4 ft<sup>2</sup> each to the available footprint,
7. New design successfully passed AASHTO H-10 load rating test (1’ soil cover & 16,000#/axle)

System continues to support pressure distribution of effluent, either by suspending the line from the dome, or placing special supports that lift the line 3” off the trench bottom. Infiltrator indicated that the old product will be phased out.

A motion to approve the product was made, seconded, and passed unanimously.

**Discussion:** Water Quality Administration expressed to everyone that Idaho and the National Sanitary Foundation (NSF) International are currently developing a Testing Standard applicable for Gravelless Trench Products. Idaho will grant a grace period for currently approved products to become NSF sized/approved/tested.

## 8. Orenco

Orenco Systems, Inc. (OSI) requests a change in product identification from the AX-20N to the AX-20. Requires NSF approval through their ongoing certification program. Idaho does not require ongoing NSF recertification.. Idaho’s ongoing Operations & Maintenance (O&M) program, with annual monitoring and reporting, is the critical key to maintain these systems, and assure that systems do not contribute to ground water contamination. The Programmable Logic Controller can be manipulated to alter the system’s efficiency without requiring recertification. This lies within the O&M’s responsibility to tune the system to meet the permitted effluent quality. TGC will have to determine what product changes would require NSF recertification. TGC proposes that this would be more easily handled in an Operating Permit environment. OSI restates their request to add AX-20 product nomenclature. A motion to add the product to the TGM’s approved list was made, seconded, and passed unanimously.

## 9. OSI continued: Request for Seasonal Use of ETPS (Advantex) System.

OSI requested permission to install their Advantex product family at facilities that are used seasonally. Technologies that are currently approved for seasonal use include Intermittent Sand Filters (ISF) and Recirculating Gravel Filters (RGF), but are typically permitted depending upon the ground water quality requirements. Applicant identifies the site criteria in the permit application, and the Permit writer determines whether the technology proposed is applicable.

There are no constraints in the TGM’s ETPS section prohibiting these systems from being used in a seasonal application. The Rules do not address Alternative Treatment Technologies other than to refer their approval to the TGC. The Advantex’s synthetic media would provide filtering during the initial dosing, similar to ISF and RGF function. OSI waived the National Sanitary Foundations (NSF) stipulated three (3) week startup period for NSF 40 certification. The resulting data showed that the Advantex system yielded effluent better than the 30/30 mg/L BOD<sub>5</sub>/TSS requirements within days, not weeks.

Granting approval to one ETPS, under the ETPS section, will allow all ETPS’s to request seasonal system permits.. Since all technologies do not have data supporting their applicability for seasonal use, approval must be approached cautiously. Some ETPS’s in a seasonal use application may be classified as a failing system due to the infrequency of wastewater generation, coupled with the system’s required response time to effectively process the wastewater to permit limits. Put another way, the infrequent wastewater contributions may not occur long enough or frequently enough to allow the system to develop a mature microbe population required to adequately process the wastewater.

TGC recommends that the Onsite Coordinator generate a section addressing seasonal permitting requirements for alternative technologies. The TGC made a motion to take no action at this time concerning the proposal for seasonal use of the Advantex systems, seconded, and unanimously approved.

#### **10. Aquamake:**

Due to no representative present, and the insufficient information provided in the submittal, DEQ recommends that the submittal be removed from consideration. All present agreed.

#### **11. Beaver Plastics**

TGC identified this gravelless systems as un-louvered. No supporting data provided in the submittal. Motion made to deny approval based on lack of supporting data, and seconded. Motion unanimously approved. Product denied.

#### **12. Bowco Industries – Effluent Filter**

Effluent filter meets or exceeds the pump screen width criteria. The slit width maximum is 1/8<sup>th</sup> inch, this product has 1/16<sup>th</sup> inch. Motion was made to approve, seconded and carried unanimously

### **TGC Meeting Frequency**

TGC concludes that meetings twice a year provides a workable agenda. DEQ proposes keeping the frequency to 2 times a year, typically late October or early November, and then again in late March or early April. DEQ may propose a third TGC meeting in any year that has an exceptional amount of submittals, or an urgent topic arises.

### **Home Owners Association as approved O&M Entity in the O&M Section of the TGM**

TGC proposes that Home Owners Associations (HOA) be removed from the list of approved entities that qualify as Extended Treatment Package System (ETPS) Operation and Maintenance (O&M) entities. A motion was made to remove HOA from list of allowable ETPS O&M entities, seconded, and unanimously approved.

### **Total Nitrogen (TN) and Total Phosphorus (TP) Reductions**

A table was previously generated and presented to the TGC for review and approval during the December 2003 TGC meeting. Main issues identified are assigning appropriate TN reductions and listing them in the TGM for permit writers and field personnel to use. In the December 3, 2003 meeting the TGC agreed upon accepting objective, third party data. The December 3, 2003 draft minutes will be placed on the website for TGC member review and public comment prior to approval at the next meeting. After the minutes are accepted I will add the referenced Table to the TGM for Health District personnel use.

### **Total Nitrogen (TN) Reduction Associated with Drip Distribution Systems**

Currently, DEQ's position is to not allow nitrogen reductions for effluent placed in the root zone/shallow subsurface. DEQ's position is based upon Idaho being a four season environment, with growing seasons ranging anywhere from approximately 100 to 160 days. During the majority of the year the plants are not taking up nutrients, which means that the nitrates will percolate down to the ground water.

### **Evapotranspiration (ET) Systems**

Motion to remove from agenda, seconded, and unanimously approved. Topic removed from agenda.

### **Potable and Non-Potable Lines in Trench**

The Plumbing Bureau has jurisdiction over this aspect of construction. This is not applicable for the TGC to develop

guidance on. Topic was removed from consideration.

## Rule Changes

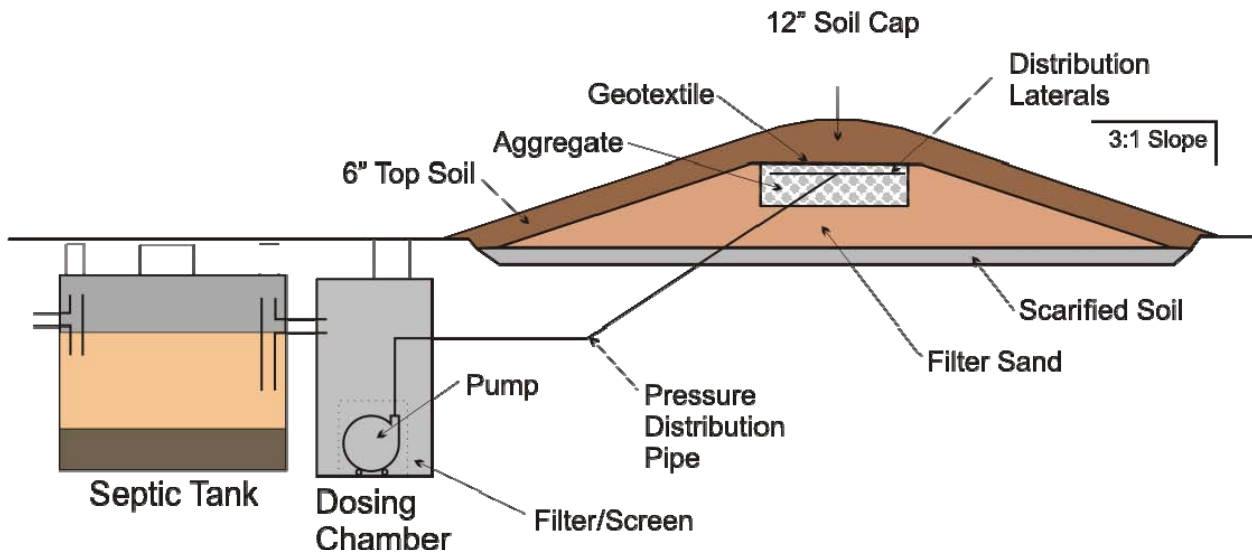
1. The TGC identified Dosing Chambers and Effluent Lines as lacking setback requirements in both the TGM & Rules. This is applicable for Rule, so was removed from consideration. Will be addressed during the next Negotiated Rule Making effort.
2. The TGC also wondered if Wastewater Generation Criteria associated with home square footage would be re-addressed. The TGC believes that home square footage or fixtures can be used to establish wastewater generation more accurately than using the number of bedrooms. An equation was generated previously that did not impact homes of less than 2500 square feet. It was supported by Northern Idaho Builders and Realtors. The Onsite Coordinator will investigate and discuss with the Water Quality Administrator.

## Technical Guidance Manual

- Printing and Updates
  - Currently, updates are posted on the website. Future hard copies will be discouraged, but not prohibited.
- Extra Drain Rock Trench, Conditions for Approval, Condition 1 specifies that this Alternate System can be used to offset a drainfield that is too small. This is not the intent of this Alternate System. The TGC recommends that Condition 1 be changed as follows:
  - Change From: “The site must meet the general requirements for a standard system except that it is not large enough.”
  - Change To: “The site must meet the general requirements for a standard system.”
- Large Soil Absorption System (LSAS) section was proposed to be re-inserted into the TGM. The intent was to identify the responsible parties and operator requirements. Committee members indicated that they were not opposed to including a LSAS in the TGM. The coordinator was tasked with generating the preliminary section, distributing it for comment.
- Evapotranspiration (ET) System Section does not adequately define the setback requirements to wells. A public request had been received to reduce the standard setback from the 100 foot minimum. The ET system is a fully contained system and had already been granted a waiver from supplying a replacement area. The TGC recommends that the minimum setback to drinking water wells should be maintained. No change will be made to the ET System Section setbacks.
- A request had been received to add an Holding Tank for excess fluids to the Composting Toilets Section. The TGC relayed information concerning the failed Composting Toilets that had been installed on the Northern Idaho Rails to Trails system. These had to be converted to Vault Privies. The committee recommends that the Composting Toilet Section not be modified per this request.
- A question was posed to the Committee concerning permitting Onsite Wastewater Drainfields in Flood Plains. The TGC noted that the TGM and Rules already address this issue. Specifically, installing drainfields in Flood Ways is prohibited. Additionally, installing drainfields where water will ‘stand’ (accumulate) over the drainfield is prohibited. The TGC commented that a better indicator of an appropriate site is separation to ground water. The committee concluded that the current guidance is appropriate and did not recommend changing it.
- Clarification was requested for electrical junction box (j-box) placement and configuration requirements inside the Extended Treatment Package System (ETPS) risers. The TGC indicated that technically this is the jurisdiction of the Electrical Bureau and that it was previously addressed in a prior meeting. New figures should have been implemented in the TGM’s ETPS Section. The Onsite Coordinator is tasked with researching and implementing the prior recommendation.
- In the Operations and Maintenance section of the TGM, the Septic Tank Pumpers Guidance Manual is deficient supporting documents. Namely, a sample Septic Tank Pumping Report should be inserted. This report is recommended for the pumpers to fill out for each job, retain a copy for their records, and provide a copy to the home owner. The Onsite Coordinator is tasked with inserting a sample report into the Septic Tank Pumpers guidance Manual.
- Non-treated Building Material/Paper is currently allowed to be used as drain rock cover to keep soils and other fines from filling the voids. Southwest District Health has reported that systems uncovered as recently

as 5 years following construction, due to a failed drainfield, have had decomposed untreated building paper. The failure of this paper resulted in fines penetrating the drain rock, contributing to early failure. Because this material is allowed for drainfield construction (IDAPA 58.01.03.008.07), this change must be made to the rules. The committee recommends that the Onsite Coordinator present this change to the legislature to remove this material.

- An ATU Sampling Flow Chart had been presented in the past to help Service Providers, the Non-Profit Operations & Maintenance Entities, and the Regulators establish a re-sampling schedule for those systems that are not meeting their specified effluent quality levels. A TGC member wondered how long this re-sampling continues before the Regulator says “Stop”, and identifies the system as a failed system? The O&M entities and Service providers be shooting for complete compliance of all of their systems? The goal is to have 100% of all system in compliance. Because the Nutrient – Pathogen Guidance is being rewritten, this question is bigger than the TGC can solve. Any system that is an ATU should be held accountable. The Onsite Coordinator will look into the ATU Sampling Flow Chart with the intention of presenting it at a future TGC meeting.
- Sand Mound Section: The TGC should consider changing the septic tank size associated with Sand Mound Systems to 1.5 times the Rule specified minimum septic tank size due to the use of this technology in Non-Domestic systems. The TGC initially proposed 1.5 times that value for Mound systems. The TGC recommends that Condition for Approval #5 be changed to reflect this requirement. Prior TGC meeting identified errors in the Sand Mound Diagram. The TGC recommends that the Onsite Coordinator modify the diagram to remove these errors.



### DEQ Update on Proposed Rules

Currently there aren't any proposed Rules that DEQ has/is presenting before the legislature.

**Issues from the field:** None

The committee adjourned at 5:00 pm