



State of Idaho  
Department Of Environmental Quality  
Technical Guidance Committee

**Technical Guidance Committee  
Teleconference**

**Minutes**

**November 3, 2010**

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

**TGC ATTENDEES:**

Joe Canning, P.E., B&A Engineers  
Bob Erickson, Senior Environmental Health Specialist, South Central Health District (SCPHD)  
David Hatt, Onsite Wastewater Coordinator, Department of Environmental Quality (DEQ)  
David Loper, Environmental Health Director, Southwest District Health Department (SWHD)  
George Miles, P.C., Advanced Wastewater Engineering (Teleconference)  
Mike Reno, Environmental Health Supervisor, Central District Health Department (CDHD)

**ABSENT:**

None

**GUESTS:**

Matt Gibbs, Infiltrator Systems  
Richard Huddleston, P.E., Wastewater Program Manager, Department of Environmental Quality (DEQ)  
Kendall Unruh, Western Septic and Excavation  
Brandon Unruh, Western Septic and Excavation  
Ryan Spiers, Spiers Construction-Bio-Microbics Fast Systems

Meeting called to order: 9:25 a.m.

**ROLL CALL:**

- Introduction of committee members, guests, and attendees.
  - Welcome Lindsey Stanton, Administrative Assistant, Water Quality
- TGC meeting minutes:



*August 11, 2010 meeting minutes*

- Replace the word “mounts” with “mounds.”

**Motion:** Joe Canning moved to accept the minutes with the proposed change.

**Second:** Mike Reno

**Voice Vote:** Motion carried unanimously.

Minutes will post as final.

- Technical Guidance Committee Update:
  - **Installers Test:** The URL and test questions are loaded and available to the Health Districts for review and comment. DEQ is asking the districts to take the test and provide feedback by November 5. DEQ will then secure the website and set up access for installers. An update to the Health Districts SOP should be coordinated with DEQ on how to establish a consistent statewide administration of the test.
  - Bob Erickson would like to see DEQ take over installer training using the same training infrastructure already in place for public water systems or treatment plant operators. Rick Huddleston commented that funding for those types of programs have become scarce over the last few years.
  - Any test questions submitted for consideration will go through an EHS committee comprised of TGC members.
  - **Installers Class:** George Miles expressed concern that product suppliers presenting during installer courses are there solely to promote their products and/or treatment units. David Loper will discuss the issue of speakers promoting products during installer’s training, at the next Environmental Health Directors meeting.
  - TGC members agreed to the need for a consistent statewide approach to installer classes to provide a variety of information to the attendees.

**Action Item:** In the beginning of the year, David Hatt will coordinate with the Environmental Health Directors and TGC to evaluate what installer’s classes the onsite coordinator will present Statewide.

**UNFINISHED BUSINESS:**

- 2.4 Evaluating fill material guidance (weathered fill)
  - Committee tables the revised weathered fill guidance until next TGC meeting.

**Motion:** Mike Reno moved to table this agenda item and review it through email.  
**Second:** David Loper  
**Voice Vote:** Motion carried unanimously.



**Action Item:** David Hatt will email a corrected version of the document to TGC members for evaluation and comment.

- 4.11 Extra Drain Rock Trench

TGC requests further clarification and edits to the extra drainrock trench section submitted for review. TGC recommends the following:

- Clarify Table 4.3, still confusing to the reader.
- Strike “except that it is not large enough” in the description.
- Future modification to the section will clarify the applicability of a bed in an extra drainrock trench.
- The first sentence under the table needs to read, “For widths not shown in table, use equation.”
- The description should read, “Extra drain rock drain field: a standard aggregate filled drain field with more than 6 inches of aggregate under the drain field.”
- Trench configurations are preferable to an absorption bed.
- Change all instances of “trench” to “drainfield,” except for Table 4.9 and on pages 2 and 3.

**Motion:** Mike Reno moved to approve the section with the changes recommended by TGC.

**Second:** Joe Canning

**Voice Vote:** Motion carried unanimously

**Action Item:** David will make changes and email the changed document to members.

- Effluent Enhancement Components

- The committee expressed concern regarding the lack of information about the proprietary aerobic bacteria. They need to know all of the data about the bacteria before approving.
- Clarification: “TGC is not approving this... but adding it to a “no objection” list.”
- Change “Regulatory agency approval” to “DEQ or NSF approval.”
- “The proprietary bacteria must have DEQ or NSF approval.”
- Change Regulatory agency to “DEQ.”
- Item six should state that an “effluent filter is required.”
- Item seven should state that a “high water alarm is not required but recommended.”
- Add the statement, “There is no warranty or guarantee that this component will remediate a failed drain field and the health district is named harmless.”
- An engineer needs to submit the documents.



**Motion:** Mike Reno moved to approve the effluent enhancement components with the proposed changes.

**Second:** David Loper

**Voice Vote:** Motion carried unanimously.

**Action Item:** Change document and distribute to TGC members for review.

- **Continuous Flush Subsurface Drip Dispersal System**

- George Miles still has some concerns about this type of configuration.

**Motion:** George Miles moved to table until next meeting

**Second:** Joe Canning

**Voice Vote:** Motion carried unanimously.

**Action Item:** Add this item to the next agenda.

## **NEW BUSINESS:**

- **Pump to Drop Box**

TGC Members discussed requirements for systems pumping effluent from one elevation to another and then gravity fed to a standard drainfield. Most Health Districts require submission of engineered plans for pressurized dosing systems when soils do not qualify for the installation of a standard drainfield. Although the pump to drop box system will use many of the same components called out in a set of engineered plans, a complex installer is capable of this type of installation and engineering is not necessary for systems lifting effluent from one elevation to another. Guidance developed for the pump to drop box design should clearly state when engineering is required for the differing types of pressurized systems and when engineering is not necessary.

Another item members discussed is the problems that arise when contractors install pumps, control panels and electrical connections without an electrician's license and the need for health districts to require a licensed electrician for all installations requiring any electrical work required for the operation of a disposal system.

Also mentioned was the use of a flow splitter as an acceptable product for use in place of a drop box.

**Motion:** George Miles moved to create a pump to standard drainfield system section in the TGM.

**Second:** Joe Canning

**Voice Vote:** Motion carried unanimously.

**Action Item:** Develop new guidance for pump to drop box standard drainfield.



- White paper – Evapotranspiration (ET) Systems and Potential for Infiltration of Processed Effluent (AJ Maupin)

A concern with the ET system (absent a liner) is the possibility of effluent infiltrating into the soils beyond the designed retention capacity and not providing enough residual effluent for the plants to live. This should not be a problem for ET systems placed into soils with little or no permeability.

Correct section 6 on page 414 is missing the word “or.” Add “or” before PVC.

**Motion:** Mike Reno moved to accept the ETA white paper as presented by AJ Maupin and move forward with guidance development.

**Second:** Bob Erickson

**Voice Vote:** Motion carried unanimously

**Action Item:** AJ Maupin will develop guidance for the ETA system for incorporation into the TGM.

## **PRODUCT REVIEW:**

- **Bio-Microbics, Inc.** – RetroFast® 0.15 and 0.25

No changes to the document, but will need NSF approval or a letter from an engineer licensed to practice in Idaho.

**Motion:** Mike Reno moved to approve the RetroFAST® .15, .25, and .375 for the enhanced component list provided they provide NSF approval or a letter from a licensed engineer.

**Second:** George Miles seconded.

**Voice Vote:** Motion carried unanimously.

**Action Item:** Update the approved product list after receiving NSF approval or letter from licensed engineer.

- **SWSLoo, Inc.** – ENVIRO LOO® (ELOO®) George H. Witta, President (teleconference)

### Waterless, Passive Solar Toilet

- Currently SWSLoo, Inc. manufactures two ELOO® models; a commercial unit designed for about 60 uses per day and a residential unit designed for 30-35 uses per day. The ELOO® works like an incinerator toilet but operates passively using wind and solar energy in place of electricity or gas. The ELOO® is accessible to pumper trucks but it is more efficient to hand scoop the remaining byproduct and send it to the landfill.
- Bob Erickson asked if the ELOO® would continue to process waste in colder climates. Mr. Witta indicates units are installed and operating in Montreal, Canada.



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**Motion:** George Miles moved to approve the ELOO® under the incinerator section in the TGM.

**Second:** Bob Erickson

**Voice Vote:** Motion carried unanimously

**Action Item:** Update the approved product list.

### **Update on Drainfield to Surface Water Subcommittee:**

- Joe Canning and George Miles provided an update on the drainfield to surface water subcommittee.
- The subcommittee members are a representative cross-section of interested parties. Participation from the Realtors Association (RA) has dropped off because the technical discussions have become very involved. DEQ will put together an outreach program for the Realtors Association & the Building Contractors Association as the subcommittee prepares their recommendation for review by the next scheduled meeting.
- Dr. Jim Ippolito has proved to be a valuable member due to his expertise in phosphorus.
- The subcommittee isolated their concerns into four groups: personal care products/pharmaceuticals, pathogens, nitrates and phosphorus. Personal care products/pharmaceuticals are an emerging issue, and they decided not to include pharmaceuticals until research has clarified the issue.
- As long as there are appropriate groundwater separations below the drainfield, pathogens are not an issue.
- There is a good understanding of nitrates because of the NP (Nutrient Pathogen) process.
- There did not appear to be a lot of research on phosphorus that is applicable to residential flows. Dr. Ippolito's expertise is in the field of phosphorus up-take in soils. Four soil constituents determine phosphorus removal: calcium, aluminum, iron and magnesium. Dr. Ippolito is modeling different soils to determine their points of saturation. The worst-case scenario is a three-year breakout, while other estimates indicate breakout at 40 – 100 years.
- When the subcommittee meets on November 18, they will combine all of their individual research and ideas to develop recommendations from the findings.

### **NEXT SCHEDULED MEETING:**

**Date:** Tuesday, March 15

**Time:** 9:00 a.m. – 4:30 p.m.

**Place:** DEQ Conference Room C  
Conference Call Bridge #1

**ADJOURN: Meeting Adjourned at 3:15 p.m.**