



State of Idaho
Department Of Environmental Quality
Technical Guidance Committee

**Technical Guidance Committee
Teleconference**

Minutes

March 15, 2011

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

TGC ATTENDEES:

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

ABSENT:

None

GUESTS:

Michael Cook, Soil Scientist, DEQ
Richard Huddleston, P.E., Wastewater Program Manager, DEQ
Matt Gibbs, Infiltrator Systems
Allen Worst, R.C. Worst & Company, Inc
Dale Atkinson, Atkinson Jet Septic, Inc.
AJ Maupin, P.E., Wastewater Program Lead Engineer, DEQ
Barry Burnell, Water Quality Division Administrator, DEQ
Kendall Unruh, Western Septic and Excavation
Ryan Spiers, Alternative Wastewater Systems, LLC
Lindsey Stanton, Administrative Assistant, DEQ

CALL TO ORDER/ROLL CALL:

Meeting called to order at 9:00 a.m.
Committee members, guests, and attendees introduced themselves.



MEETING MINUTES

November 3, 2010 meeting minutes

Motion: Mike Reno moved to accept the minutes as presented

Second: Joe Canning

Voice Vote: Motion carried unanimously

Minutes will post as final

AGENDA ADDITIONS

Bob Erickson requested placement of the following three items on the agenda:

1. Clarification to the Sand Mound section to allow sand mounds the same vertical setback as an Intermittent Sand Filters (ISF) when (2) two feet of filter sand is placed below the gravel bed.
2. Add a note in the Pressure Distribution section that drainfields exceeding 1500 ft² are required to use pressure distribution (currently we have to infer from the table in Section 008.04 of the rule that a standard drainfield is not allowed to exceed 1500 ft².)
3. Continue discussions from prior meetings on vertical setbacks for the Extended Treatment Packaged Systems (ETPS), Intermittent Sand Filters (ISF), and Recirculating Gravel Filters (RGF); studies indicate ETPSs provide half the log reductions to coliform bacteria than the (ISF/RGFs) filter systems; yet continue to be granted the same vertical setbacks.

David Hatt noted that (3) three agenda items were not sufficiently prepared for discussion:

1. Evaluating fill material
2. Continuous flush drip
3. Pump to drop box

GENERAL UPDATE

- **Product distributors presenting at installers courses**

David Loper brought this subject up at the last environmental health directors meeting. The EH Directors agreed that presentations will be limited to the subject matter, with no advertising. At the next environmental health directors, meeting David will suggest a provision to review content prior to its presentation.

- **Web-based installer testing**

Richard Huddleston shared that the installer test previewed in Pocatello and Idaho Falls and installers were receptive to the new testing format. The process for emailing results is



in the set up phase. Everything will be ready to go May 1, 2011. A “work around” is in development for Heath Districts unable to provide a test taker with a computer terminal, people can go to the main office, or perhaps take the test on paper. The subcommittee discussed other options that included allowing installers to take the test at home. No consensus or decision reached on this topic.

SUBCOMMITTEE UPDATE

• Present and discuss Drainfield to Surface Water Setback Subcommittee’s Progress Report

All Technical Guidance Committee (TGC) members have received the Progress report that contains an executive summary, the report, and appendices. AJ Maupin and Michael Cook presented the subcommittee’s findings to date.

The subcommittee recommended that the rules specifying setback distances should not change because they are appropriate for standard systems consisting of a septic tank and gravity-dosed drainfield. The Technical Guidance Manual (TGM) may be the appropriate venue to allow drainfield to surface water setback reductions since this is the venue used to document technological solutions associated with specified citing requirements.

Focus groups within the subcommittee studied and developed recommendations regarding nitrates, pathogens, phosphorus, and emerging contaminants of concern. There was inadequate research available to address emerging contaminants of concern. Nitrogen is a long-term issue in Idaho; the focus group concluded that this is an issue adequately addressed with NP studies and the total nitrogen reduction policy in the Technical Guidance Manual (TGM). Pathogens pose a risk to surface water. The focus group concluded that if flows are unsaturated and move through suitably fine textured soils with appropriate soil depth, pathogens would filter adequately. Phosphates pose the biggest problem. There is a finite capacity in the life of a drainfield for sequestering phosphorus. By identifying soil attributes and volume of discharge, the maximum dose and capacity of the drainfield can be determined. Some soil attributes considered include amorphous iron, amorphous aluminum, calcium, and residual phosphorus concentrations.

The subcommittee had three major findings:

1. Pressurized dosing for phosphorus sequestration in drainfield soils should be required.
2. There must be a site-specific analysis of soils.
3. Both drainfields installed with the initial permit.

Setback distances: Because phosphorus is not a ground water contaminant but is a surface water contaminant, one must investigate the receiving surface water body, to determine its load carrying capacity or refer to previously established TMDLs for the water body in question. Consequently, the surface water body is the logical point of compliance. After establishing compliance boundaries and concentration limits, efforts to pursue modeling to evaluate the impact the drainfield location may have on the surface water quality.



Based upon the fact that the best way to keep phosphorus from impacting surface water is to remove it from the wastewater stream prior to releasing it to the environment, the subcommittee considered phosphorus removal technologies for individual residential use. The main concern with these systems is that the media is expendable and will require replacement. To determine when this type of treatment system must have its expendable media replaced will require ongoing monitoring and reporting. The subcommittee is concerned that even if this expendable media technology is permitted, and even after, successful monitoring; forcing the homeowner to replace the media may prove to be extremely difficult. The subcommittee concluded that to permit these types of expendable media technologies, a change to the subsurface sewage disposal rules would be necessary to ensure the authority to enforce compliance.

When revising the NP guidance document, the department did not set aside time to review phosphorus break-through as a weighted factor for approving a subdivision adjacent to surface waters. The subcommittee's findings may warrant further review by the Department in the future.

Motion: Mike Reno moved to table this discussion until the subcommittee can discuss it with the DEQ director and at such time schedule a meeting to determine if we need to go through negotiated rulemaking

Second: George Miles

Voice Vote: Motion carried unanimously

12:00 pm: adjourned for lunch

1:30 pm: meeting reconvened

UNFINISHED BUSINESS:

- **2.4 Evaluating fill material guidance (Weathered Fill)**

Item was not ready for review at time of meeting.

- **4.11 Extra Drain Rock Trench (Drainfield)**

David Hatt incorporated the committee's suggestions into the TGM. The committee reviewed the updated document and made changes as needed.

Motion: David Loper moved to accept the changes made to the document and for David Hatt to email the document to the TGC for review and approval by email vote

Second: Mike Reno

Voice Vote: Motion carried unanimously

Action Item: David Hatt will clean up style and grammar issues in the document, run it through DEQ Technical Publications, and then send the newest version to the TGC for review accompanied with a timeline for a comment period and decision.



- **Effluent Enhancement Components**

The subcommittee reviewed the document and made changes as needed.

- Change “must” and “will” to “should” for all terms not related to rule.
- Reinstate the last sentence of #3, “and the component must be listed in the TGM’s Effluent Enhancement Component list.”
- #2: Remove the word “typical” and strike everything after “prematurely.”
- Construction #6: Change to “an effluent filter or the equivalent.”
- Change “effluent enhancement component” to “drainfield remediation component.”
- Change “barring extenuating circumstances” to “An extension may be granted at the discretion of the health department.”
- The TGC asked DEQ/NSF to review and approve the proprietary bacteria. Strike this in description.

Motion: Mike Reno moved to approve the drainfield remediation components with the changes made today and for David to email the document to the TGC for final approval

Second: Bob Erickson

Voice Vote: Motion carried unanimously

- **Continuous Flush Subsurface Drip Dispersal System**

Item was not ready for review at time of meeting.

Motion: George Miles moved for David Hatt to draft the proposed guidance change for the drip section and email it to the TGC for comment and approval

Second: David Loper

Voice Vote: Motion carried unanimously

AGENDA ADDITIONS

1. Vertical Setback Distances for Sand Filters

Clarification to the Sand Mound section allowing sand mounds the same vertical setback as an Intermittent Sand Filters (ISF) provided a minimum of (2) two feet of filter sand placed below the gravel bed.

2. Pressure Distribution Requirements for Drainfields

Add a note in the Pressure Distribution section that drainfields exceeding 1500 ft² are required to use pressure distribution (currently we have to infer from the table in Section .008.04 of the rule that a standard drainfield is not allowed to exceed 1500



ft²).

Motion: David Loper moved to approve issues #1 and #2

Second: Joe Canning

Voice Vote: Motion carried unanimously

3. Sand Filter vs. ETPS Vertical Setbacks

Continue discussions from prior meetings on vertical setbacks for the Extended Treatment Packaged Systems (ETPS), Intermittent Sand Filters (ISF), and Recirculating Gravel Filters (RGF); studies indicate that ISF/RGFs filter systems provide twice the coliform bacteria log reductions as ETPSs; yet ETPSs are granted the same vertical setback.

Motion: Mike Reno moved to change the vertical separation distance to ground water for ETPS processed effluent discharged to the subsurface. Effluent dispersed to a low pressure, time dosed capping fill drainfield, or drip dispersal field may reduce the vertical separation distance to those specified in the Recirculating Gravel Filter, or Intermittent Sand Filter sections. Vertical separation distance to ground water for effluent discharged to a gravity fed drainfield should meet that specified in the Sand Mound section.

Second: Bob Erickson

Voice Vote: Motion carried unanimously

NEW BUSINESS:

- **Pump to Drop Box**

Item was not ready for review at time of meeting.

- **Soil texturing flowchart**

AJ Maupin presented the soil-texturing flowchart, which is the USDA's NRCS flowchart with a few modifications. AJ converted measurement in metric units to English units. AJ explained the flowchart to the subcommittee and changes made as needed.

George Miles will provide AJ with documentation with additional soil texturing methods.

Motion: Reno moved to approve the soil-texture flowchart with changes made today

Second: Joe Canning

Voice Vote: Motion carried unanimously

- **Evapotranspiration (ET) / Evapotranspiration/Infiltration (ETI) Systems section modification (AJ Maupin)**

AJ presented the modifications for the ETI section to the TGC. David Loper asked how the integrity of the liner would be tested and maintained, and what the criteria will be. AJ



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will adjust this section to include testing requirements.

Motion: Bob Erickson moved to accept the current changes made to the ET/ETI Systems section of the TGM and e-mail the modified document to committee members for final review and approval

Second: Joe Canning

Voice Vote: Motion carried unanimously

PRODUCT REVIEW:

- **Eco-pod**

George Miles sought approval of 25 mg/L of nitrogen based on third party test results from NSF.

Motion: Mike Reno moved to table George's proposal until he provides testing data to support the approval of the reduction

Second: Joe Canning

Voice Vote: Motion carried

Abstained: George Miles

NEXT SCHEDULED MEETING:

Date: October (date to be determined via email)

Time: 9:00 a.m. – 4:30 p.m.

Place: DEQ (room and phone bridge to be determined)

ADJOURN: Meeting Adjourned at 4:00 p.m.