

Drainfield to Surface Water Setback Distance Subcommittee
Teleconference Meeting Minutes
Thursday, 10/29/2009, 10:00 am

Teleconference
Date: 2009-10-29
Start: 1000 hours
Attendance:

Boise: AJ Maupin, PE; Joe Canning, PE; Bill Holder, PE (via telephone)
Coeur d'Alene: Dick Martindale; George Miles, PE; Allen Worst
Idaho Falls: Nathan Taylor

Missing: John Corcoran (Realtor Association Representative);
Brett Skidmore (Building Contractors Association Representative);
Dr. Jim Ippolito, Ph.D. USDA

Meeting called to order at 10:00 am.

Introductions were made with each member providing a brief description of their position, qualifications and / or experience.

Information concerning Brett Skidmore, the Building Contractors Association representative, was relayed to the Subcommittee. Brett was involved in a serious auto accident on Tuesday morning, 10/27/2009. While Brett is in serious condition, it is not reported to be life threatening. Dr. Jim Ippolito, Ph.D, the soil phosphorus expert, is also unavailable to participate in today's teleconference due to prior obligations.

A brief description of the historical record concerning drainfield to surface water setback distances in Idaho was provided. The 1978 Rules specified 300 feet minimum between drainfield and surface waters. The Rules were changed in 1985 with the inclusion of wastewater flows, (250 GPD \pm 50 GPD/bedroom), delineation of soils types (Groups A, B and C), and assigned separation distances for each soil group. Group A maintained the 300 foot surface water separation distance while groups B and C were reduced to 200 feet and 100 feet respectively. *{Action Item (AI): AJ tasked with scanning old Rules and distributing them to the Subcommittee members}*

Constituents of Concern (CoC) were discussed in light of the drainfield to surface water setback distance. Phosphorus and pathogens were mentioned first, but nitrogen and Pharmaceuticals and Personal Care Products (PPCP) and Endocrine Disrupting Chemicals (EDC) were also mentioned as detrimentally impacting surface water and consequently should be included in any surface water setback distance evaluation. Mention was made of various studies conducted across North America addressing septic system's impact on adjacent or near by surface waters. It was also mentioned that compared to California, the 300 foot separation distance seemed extreme. Subcommittee members agreed that research into what is appropriate needs to be done.

The question was posed whether this effort would result in a Rule change. The Attorney General office has stated that typically, any change that modifies a dimension listed in the Rules will require a Rule change to implement. The multitude of technological advancements that have recently been made was mentioned. The subcommittee agreed that these technologies need to be investigated to see if they could influence the drainfield to surface water setback distance requirements. It was pointed out that the Rules currently allow systems and technologies to be used if they are recommended by the Technical Guidance Committee (TGC) and are accepted by DEQ. This provides an avenue to implement modifications to the drainfield to surface water setback distances through inclusion in the Technical Guidance Manual (TGM) if a technology is identified and approved that can meet the intent of the Rules. This avenue will not require a Rule change, but rather a new section in the TGM. So, if the subcommittee determines that the currently established surface water setback distances are not appropriate, then a Rule change will be required. If the subcommittee determines that the setback distances are pertinent as is, and new technologies are identified that can reliably address CoCs, then these new technologies can be documented in the TGM's alternative systems section. Specific technology related setback distances associated with each alternative system can then be documented in the TGM and permits issued accordingly.

A joint DEQ and Health Districts ongoing project was presented to the subcommittee. This project will sample septic tank effluent for both Total Phosphorus (TP) and Soluble Reactive Phosphorus, commonly called Ortho-Phosphorus, (SRP), to determine applicable statistics for phosphorus concentrations discharged from residential septic tanks to their respective drainfields. The results of this study will be made available to the subcommittee. DEQ will distribute this project's Quality Assurance Project Plan (QAPP) to the subcommittee for their information. *{AI: AJ tasked to distribute the Phosphorus project QAPP to the subcommittee}*.

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It was proposed that objectives and goals should be established for the subcommittee. A suggested goal was proposed that addressed evaluating the applicability of the current Rule setbacks, investigating technologies that may allow reductions, and making recommendations to the TGC and DEQ for their consideration. *{AI: AJ tasked with generating a draft set of objectives and a goal statement for the subcommittee's review and approval and for submittal to the TGC}*.

It was mentioned that discussion had previously occurred with DEQ about a matrix of variables that could be established to help understand setback distance alternatives. Discussions commenced concerning the range of variables and their associated parameters that influence drainfield setback distance requirements to surface water. Issues included

- Pretreatment
- Pressurized drainfield distribution
- Discharge point in soil horizon
- Effective soil depth
- Aerobic soil conditions
- Soil composition

A concern was voiced about the use of Recirculating Gravel Filter (RGF) vertical setback distance to ground water for the Extended Treatment Package Systems (ETPS). The RGFs have shown in studies the ability to provide 4 log reductions in pathogen concentrations and are therefore have been granted a minimum 1 foot separation distance to ground water. Unfortunately, ETPSs have only shown a 2 log pathogen reduction, but they are also granted the same vertical setback distance as RGFs, 1 foot. This concern is noted but it is believed that the TGC is currently investigating this and consequently, the subcommittee should not address it.

A desire was voiced to address current Rule definitions associated with surface water. If this effort was going to result in a Rule change anyway, it was felt that recommendations may be appropriate for the definitions of permanent, intermittent and temporary surface water.

The subcommittee decided that the most efficient approach to arrive at conclusions and recommendations was to divide up the CoCs and assign them to focus groups. The focus group composition and assigned CoCs are:

- Phosphorus: AJ Maupin, George Miles & Jim Ippolito, Ph.D.
- Pathogens: Joe Canning & Allen Worst
- Nitrogen: Dick Martindale & Bill Holder
- PPCPs and EDCs: Nathan Taylor, John Corcoran & Brett Skidmore

The question arose whether phosphorus was banned in products in Idaho as it currently is in Spokane County, WA. The information available indicates that only one county in Idaho, Bonner County, has instituted a ban on phosphorus containing cleaning products. Whether this ban is actively enforced or not could not be answered. It was pointed out that one of Idaho's major industrial complexes has large vested interests in the production of phosphorus, phosphorus containing fertilizer and other phosphorus products. Consequently, a statewide ban on phosphorus containing products would most likely be viewed unfavorably.

The next meeting is scheduled for Wednesday, 12/2/2009, from 10:00 am MST (9:00 am PST) to 12:00 pm MST (11:00 am PST).

The next meeting's agenda will be:

- Finalize Goals and Objectives
- Focus Group Projects/Reports
- Variable/Parameter Matrices framework
- Timeline / Milestones / Completion Date
- Evaluate current Rule specified setback requirement (Soil type A = 300 ft, B = 200 ft & C =100 ft)

End: 1207 hours