

Subsurface Sewage Treatment Systems (SSTS) Technical Advisory Panel (TAP) for Product Registration

Meeting Notes – March 19, 2009

MPCA St. Paul, Board Room West

Meeting Attendees

Committee Members	Present on December 12	Guests	Present on December 12
Ed Kerzinski	x	Sean Riley, Wright County	x
Mitch Johnson	x	Eric Larson, Septic-Check	x
Loren Kohnen	x	Mike Sundberg, Bord na Mona	x
Kemp Ritter	x	Tony Birriteri, Petersen Supply	x
Sara Christopherson	x		
Chad Viland	x		
Bob Whitmyer	x		
Greg Halling	x		
Joe Enfield	x		
Vacant			
MPCA Staff			
Barb McCarthy	x		
Gretchen Sabel	x		
Mark Wespelal	x		
Leah Hedman, Attorney General Office	x		

Review of minutes from the February 19, 2009, meeting: Sara Christopherson noted that the notes did not fully include the intent of the motion relative to the downsizing of synthetic drainfield media. This motion should have said, “Motion, Christopherson, that the TAP does not recommend a uniform 25% downsizing of all gravelless distribution media” (underlines are additions to the motion). The seconder of this motion, Chad Viland, concurred with this addition. **Motion Halling, to approve the minutes as amended. Second Kerzinski. Approved unanimously.**

Website Upgrades

Barb McCarthy reviewed the draft layout for the organization of the Product Registration web site. Comment: MPCA should include a link to the U’s website as well. Suggestion: organize it so that tanks have their own page, treatment products have their own page, and distribution media have their own page, etc. That way it will be less confusing for practitioners and others who only are interested in specific items.

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Status of Applications

Barb reviewed the "Product Status List" update table. She asked committee members if a supplemental table should be developed that provides an at-a-glance look at what products are listed at for each treatment level. Comment – Manufacturers should decide how they want to proceed so they don't remain on the "status list" forever. Response – the notes column can be expanded to provide more information on status. Response – manufacturers will need to be urged to decide what they are doing and not just let pending applications linger. It was suggested to close an application after six months.

Barb also distributed a draft guidance on upscaling and flow splitting. Comment: It should say "must" at the bottom of page 1 – "For treatment systems that require "multiple" pods for design flows that exceed 500 gallons per day, flow splitting to a treatment device ~~may~~ must be required." Discussion: Will flow splitting need to be reviewed by TAP? Response - No. Some editorial suggestions were made.

Gretchen Sabel provided an update of items that have happened relative to the synthetic drainfield media downsizing request since the last meeting. The 2 items were: 1) manufacturers were concerned and met with Lisa Thorvig, and 2) legislatively, warrantied systems will remain in the law.

The manufacturers have asked what the next steps are. The MPCA is requesting that each manufacturer would submit an application which would be discussed at TAP meeting. The role of the TAP is to evaluate the science, applications and accompanying materials, and to provide recommendations to the MPCA. The manufacturers are looking for possible lesser reductions than 25%. There was discussion on the reduction request. In many locations, chambers are used at full size. TAP discussed developing a summary document (findings) regarding their decision on the issue of the 25% reduction request. Chair Whitmyer will begin the process; he will create a draft write-up that documents the reasons for their recommendation. TAP members will add their comments to the document. This document should be broad in nature and apply, in general, to all synthetic media. There are issues related to the geometry of products – the rule states that infiltrative surface is what matters; this is the standard that should be considered.

Are there additional publications/papers that should be reviewed? Sara will provide a new paper that will be presented given at the National Onsite Wastewater Recycling Association (NOWRA) in April 2009. George Heufelder's presentation from the 2009 Minnesota Onsite Wastewater Association (MOWA) conference may also be of interest.

High Strength Waste (HSW) Issue

Barb McCarthy reviewed the draft Conditional HSW Product Registration Submittal Requirements and Review Process to be considered a Type IV system under the code. Comment (Biriteri): Regarding Point 2 – second-party testing on actual systems installed in Minnesota would actually be more valuable. Response (member): weighting may be problematic. Several members agreed and had specific examples. There needs to be guidance as to what data would be required for Conditional HSW Product Registration. There is a need for flow data and influent and effluent water quality data. There was concern that using Service Provider data may have a bias. Comment: We need to have one standard for

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what data it takes to “gets a product in the door – conditional product registrations” and a second standard for what it takes to actually be fully registered. The latter will require third-party testing, the former would have a lower standard. Comment (Birriteri, on behalf of Jim Bell) – the TAP may want to consider whether a manufacturer with a registered single family product registered, should be automatically registered for their High Strength Waste Product, without having to go through additional testing to prove Treatment Level C. Discussion – this is not supported by the panel’s experience – there is too much variability in products to make a blanket statement like this. Suggestion – the State should establish a database that Service Providers could use to enter data they get from the systems they monitor.

What sort of data is needed to register a product? Discussion of the use of “pre-air” – can be either a proprietary product or something that is put together to serve a need. Panel members expressed concerns with non-proprietary products and that this would leave the door open to all sorts of possibly problematic technology. Pre-air should be in the original design, either in the original system or as a mitigation. Comment – we can’t cover pre-air now, or whether adding pre-air makes it a Type V. Barb McCarthy asked the group: “How many systems do you need field testing from before we can consider it for conditional registration?” Discussion: Must know influent and effluent quality and flow. Twenty systems was a number that was discussed. Ten or twelve or four were also discussed.

We should be thinking on two tracks – the “get in the door” track and the “full registration” track. Is twenty systems too many? Concern was raised about the entry of new products into the market place; but the Product Development Permit helps with this. How much data? Quarterly for four years? Maybe it should be one year? There is data from systems permitted by the State, but not otherwise. Discussion of testing – who’s responsibility is it? Would influent testing always be required? No, not to prove that you are meeting a standard? It would be needed for showing treatment. **No agreement:** A separate group will be set up to discuss this in a conference call: Bob Whitmyer, Greg Halling, Sara Christopherson, Mitch Johnson; also Mike Sundberg, Eric Larson, Tony Birriteri with Bio-Microbics, and Matt Lee from Aquatest. Barb McCarthy will review what the state of Washington has done and possibly other states. A meeting will be set up the week of March 23, 2009 or in early April.

Registration of Disinfection Devices

National Sanitation Foundation (NSF) has Standard 46 that tests grinder pumps, effluent screens and disinfection units. At this time, only chlorination systems have met this standard. MPCA’s regulatory history has been to not allow chlorination for systems permitted by the state (> 10,000 gallons per day) due to concerns with damage to the soil matrix and formation of chlorinated organic compounds. If there is a product that has been tested and certified according to a protocol, can it be separately registered here in Minnesota? Answer: yes with adequate supporting data.

Potential Rule Change Request

The letter from Jim Bell recommending that two additional treatment levels be added to the rule was discussed. **Motion Christopherson, Second Halling, to support adding two new categories to the rules for Treatment Levels D and E.**

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Side Discussion

The definition of Effluent Screens was discussed. Sara Christopherson will attempt to come up with a suggested definition. Sara will draft something and send it out to TAP members.

Premier Tech Bottomless Peat Filters

Premier Tech Environment staff were not present at the meeting; there was general discussion on the information (the powerpoint presentations) presented by Premier Tech Environment at the February 19, 2009 TAP meeting. No additional information from Premier Tech Environment was distributed. Barb McCarthy distributed copies of the powerpoint presentations given by Premier tech at the February 19, 2009 meeting. Comment: Rock isn't a method used for even distribution of effluent.

Question – how does the TAP feel about applying the loading rate table out the bottom of a bottomless filter? Not sure that attenuation within the peat filter is the same as timed dosing. Timed dosing and pressure distribution will improve treatment. Question - Would we need a code change to allow this? This committee's role is to approve the treatment, not the whole design. Question - Will Premier Tech need additional testing to prove that this works? We need to remember to be consistent in our application of the code. If this can't be done in this version of the code, then it would be good for the manufacturer to know this when the rule is open. Discussion - how effluent flows through the peat itself and what maintenance is required while it's in situ? The two issues are surface contact time and mounding. There are concerns with loading rates from bottom draining units. Question - how does the rule address this? Sara Christopherson read of the rule requirements: (definition, Subp. 61. Pressure distribution means network of pipes with effluent out orifices under pressure... discussion occurred about this. Does a floating outlet (Flout) allow for even distribution? Yes, it's even but it's not pressure unless the elevation exceeds friction loss. So, would a Flout work in sand soils? Dr. Converse did research on siphons. There may be concerns with drain back as well. It seems some believe and some do not believe electrically powered pumps must be used to meet code requirements (i.e. pressure distribution). Flouts and siphons are pumps.

Single pass and recirculating sand filter design guidance

There are 2 new guidance documents on sand filters. The goal is to have these as "public domain" treatment technologies. Question - What treatment level would these be? We need to have the same level of information provided as for proprietary treatment products (i.e. know limitations, management plans operating permits, etc.).

Management Plans and Operating Permit Template

Barb McCarthy briefly reviewed these documents. There was a suggestion to have separate operating permit templates for both commercial and residential systems. What happens when the permit expires, if the local unit of government does not issue a new one? The operating permit template may need some language to show that the permit conditions must continue to be met if the permit expires and a new one has not yet been issued. Management plan – the University of Minnesota has developed some templates; manufacturers are taking and customizing these for their products. Do we want there to be

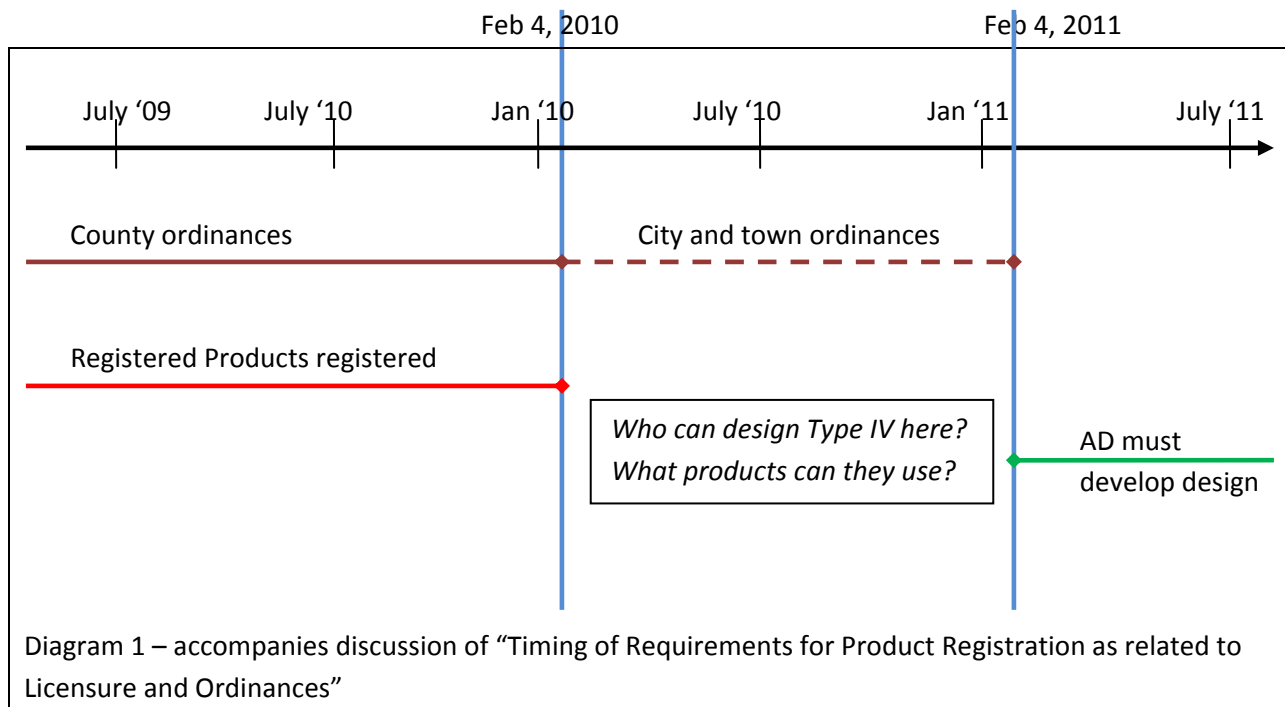
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a state template that all peat filters use? Is there a benefit to having all management plans for similar products to be the same? Discussion – the management plan template is a resource; there can be variation. The rule requires content, not form. Member – as a regulator, it would be easier to have a single template that makes it easy to ensure that all the required parts are there. The University of Minnesota is willing to remove their logo; their concern is consistency. The TAP members seem to be in agreement that manufacturers can develop their own.

Timing of Requirements for Product Registration as related to Licensure and Ordinances

Gretchen Sabel briefly presented the questions shown in Diagram 1. Recommendation is that Basic Designer can continue to do all types of designs until February 4, 2011 since this is when the state licensing requirements go into effect. Basic Designers can do designs using Registered Products until February 4, 2011.

Diagram 1.



Question: Does the committee have any recommendation to the agency on the pressure distribution on how to handle the question of pressurizing in sand? Chair Whitmyer said that this committee is designed to deal with treatment and distribution products; this is outside that purview. The role of this committee is not to drive policy or to interpret the code – it is to look at the science and engineering behind the products that come for registration.

Question (Biriteri): Where are the Biomicrobics products at in the process now? Barb is trying to get through them, it will come out soon. Are there any specific issues that need to be addressed?

Meeting adjourned at 3:35.