

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

Meeting Notes - July 24, 2008

Veterans Service Building, Room 508

### **Meeting Attendees**

<b>Committee Members</b>	<b>Present on July 24</b>	<b>Guests</b>	<b>Present on July 24</b>
Ed Kerzinski	x	Adam Ritter (in for Kemp Ritter)	x
Mitch Johnson	x	Dave Gustafson (in for Sara Christopherson)	x
Loren Kohnen	x		
Kemp Ritter		Lynn Carlson, Aggregate and Ready-mix Association	x
Sara Christopherson		Karl Goetter	
Mike Frauenkron		Brian McQuestion, Hoot Systems	x
Bob Whitmyer	x	Mike Sundberg, Bord na Mona	x
Greg Halling	x	Curtis Cluckey, Ring Industrial	x
Joe Enfield	x	Dean Person	
Chad Villand	x	Paul Flynn	
		Doug Fessel	
		Tony Birrittieri	
		Kurt Christopherson	
<b>MPCA Staff</b>		Jesse Kloepfner, Orenco Systems	x
Barb McCarthy	x	Kevin Kloepfner, Advanced Onsite Solutions	x
Gretchen Sabel	x	Jeff Iverson, Infiltrator Systems	x
Mark Wespetal	x	Wes Combs, Zoeller	x
Bill Priebe, Supervisor		Colin Bishop, Bord na Mona	x
Leah Hedman, Attorney General Office		Frank Connelly, JMK	x

Meeting was called to order at 10:08. June 24, 2008

Meeting notes were reviewed. One change was needed: under the Overview of Product Registration Process presentation by Barb McCarthy, add the statement that Recommended Standards and Guidance (RS&G) documents will include information related to installation. A motion made by Kohnen, second by Halling, to approve the meeting notes. Motion carried.

## **Organizational Issues**

Revised ground rules were discussed. Motion Halling, second Kohnen to adopt the ground rules.

Discussion: How will the group handle it if someone keeps bringing up something that the group already voted on in a way that person did not like? The chair will deal with them, no need for a ground rule.

List of meeting dates and website were discussed. Duties of the chair were reviewed, no comments.

## **Testing Requirements and Listing of Products**

Draft Listing Template: Barb McCarthy distributed examples from Oregon and Washington which were discussed.

- What should listings look like? *One suggestion is to model on the product approvals used in the building materials industry. Loren Kohnen will provide the Panel with this example.*
- Is it a good idea to link to manufacturer websites? *This is a concern – how are changes in the product or requirements handled? Oregon posts electronic copies (in PDF format) of the product manual. One manufacturer raised concerns that they don't want to have to notify all states every time they amend their website. Discussion: if they change product requirements, like sizing or maintenance, this is important information; MPCA must be notified of this and other changes that affect registration reviewed.*
- What training of designers or installers is required? *Everyone who designs Type IV and Type V systems will be an Advanced Designer and everyone who takes care of systems will be a Service Provider.*
- How will treatment devices be named? *Suggest using the national glossary of terms as a starting point. A consistent naming terminology needs to be used. Further, a summary statement that describes the purpose of the listing needs to be added at the beginning of the listing document; this should come before the disclaimer.*
- Maintenance frequency needs to be listed (much discussion). Would it make sense to have a summary sheet for each product that lists the key, minimum standards the regulator needs to write their operating permits? *Yes.*
- How in depth of a review is the group doing? *Not going in to great detail on the device, looking more at testing results.*
- Can a Local Governmental Unit (LGU) decide that certain listed products aren't allowed in their area? *Yes. They can also add details, like you have to add more insulation or something like that.*
- Can the LGU require larger septic tanks in advance of an aerobic system? *Additional tankage may impact performance. The rule specifically says tank sizing must be in accordance with product registration. If a change is made to a Type IV design, it will become a Type V.*
- Rating at a specific flow of 500 gpd - as National Sanitation Foundation (NSF) does - is a problem, since MN design flow is 150 gpd/bedroom. What happens for a 4-bedroom home that is slated for an Aerobic Treatment Unit (ATU)? What's average flow? What's rated flow? Should the column be headed "registered flow"? *Loading (organic, nitrogen) is also very important. The manufacturer needs to specify the material to be treated, and then guarantee that if the waste*

*meets those parameters, and the system is operated in accordance with their directions, that it will meet the standards.*

- Does NSF testing lock the manufacturer in at 500 gpd flow? *This is a question that will take some work to resolve. Barb will look into it.*

Direction from the Chair – Barb is requested to use the Washington and Oregon listings and morph them to address the concerns raised here. Concerns specifically to be addressed: adopt the Consortium's glossary and address the flow rating issue.

### **Application Submittals**

Review of Orenco Application: MPCA review of submittal – Barb McCarthy presented the checklist she prepared in review of the Orenco application. Orenco submitted for Category A (residential) registration and as a nitrogen treatment device at Total Nitrogen (TN) of 20mg/l level. Discussion:

- Should the person who signs on behalf of the manufacturer have to verify that the person who appears at the Panel to speak about the product? *No, we're not that formal.*
- What should be listed in the "known limitations" section? *Example – use of a water softener affects some ATUs and should be restricted. Suggestion – Minnesota Pollution Control Agency (MPCA) should be clearer in what they are looking for here.*

After a lunch break, Barb McCarthy resumed her discussion of the checklist and her review of the Orenco submittal. Discussion:

- How do you verify that the bacterial reductions are actually occurring? *Operating permits will specify the types of monitoring that is needed – for most residential, there won't be water sampling and testing. Assumptions will be made that the system meets the bacteria standard if the system is being operated as per the manufacturer's requirements and (supported by the testing documentation). One member noted that testing is needed to verify that bacterial reductions are actually occurring, especially now that the code allows reduced separation based on pretreatment. More discussion of bacterial reduction and testing. If you don't test, you have no way of knowing where you are. The new Service Provider class and test have information on this. St. Louis County has experience – they started out requiring water quality testing for ATU's but have gone to more general monitoring requirements. People raised concerns to the County Commissioners about cost; this resulted in the change.*

Barb McCarthy stated that the nitrogen data that was submitted was not specific to the product, and included many other topics and not enough detail on nitrogen removal. Orenco has agreed to shelve the nitrogen reduction registration request until more documentation is available. The data submitted for Treatment Level A (with the disinfection unit) is sufficient, McCarthy feels, to support listing Orenco's system for this. Without the disinfection unit, the AX20 would be listed as Treatment Level C.

Discussion:

- How to handle various size models of the same device? *Review as a package, whatever is listed as a part of the package is included.*

Jesse Kloeppner then gave a presentation on testing protocols and system monitoring. He noted that he's a rep, not a technical expert. Orenco Systems Inc. (OSI) technical staff can come to the next meeting if the Panel desires. Vericom Control Panel – can be used on anything that has a pump. It uses the

Internet to send messages regarding system performance. Alarms are used to notify the person in charge of potential problems. Is this testing required by Orenco? No, it's an option. Question: Should Vericom be required as part of the product registration process? Device checks in monthly unless there's a problem. Then the Advantex system specifically was discussed. Discussion:

- Does an Orenco tank have to be used with the Advantex? *The tank has to meet specific standards, and the Orenco products will be submitted with accompanying Orenco components.*
- Is freezing or frost a problem? *No. Only one froze, and it was when the homeowner left for a month in January.* Can it even handle a very low flow, like a high-efficiency furnace when nobody's home but the furnace is left on while folks are out of town? It can handle this type of flow since the textile filter is time-dosed. However, this trickle type flow can cause freezing in the building sewer pipe.
- How many have been installed in Minnesota? *Over 100, mostly in eastern Minnesota.*
- Do you have testing data? *Kevin Kloeppner states that yes, he has testing on the 50 systems he maintains. He has effluent data for most for several years.* Is this data public? *Yes, it's part of the annual reports to LGU's through Operating Permits.* Can this data be shared with the Panel? Kevin says yes, he can provide this. Concern – we need to be clear and explicit in deciding how we are going to use data from non-certified sources. Chair – this data won't impact the registration, but it would be useful to LGU's in developing Operating Permits.

The TAP then reviewed the application. The Chair asked if the Panel was ready to recommend action. No. The Panel wasn't comfortable at this point; don't feel that they have enough information. What's missing?

- Salcor Ultraviolet Light (UV) upscaling for multiple pods – how is this configuration done?
- Flow issue – how does the NSF 500 gpd testing relate to MN's 4-bedroom 600 gpd flow? The TAP and MPCA need to be real clear on what's expected here so that all are consistent – the Panel needs to set criteria. Chair suggests that the Panel identify average and peak flows. Barb McCarthy will check with NSF, Washington and Oregon. 600 gpd for a four-bedroom home in MN is a peak flow. Is this a matter of definitions? Consult the Consortium glossary to see if it that will illuminate the topic.
- Nitrogen – will review the other NSF report to see if this answers the questions
- Suggest we request an extension from Orenco so we can work this out. This will be done; Jesse Kloeppner does not anticipate problems with this. How does the sixty-day law apply to this? Gretchen Sabel to research and report back.

### **Preliminary Review of 'Outline' for Drainfield Rock Document**

The Panel then turned its attention to the detailed outline of the Drainfield Rock Recommended Standards and Guidance document. Barb McCarthy walked the Panel through this document. The Panel was asked whether this would be sufficient and useful? What else is needed? What's misleading or confusing or inappropriate?

Discussion:

- Testing of limestone – *Panel needs to specify the test to be used. Lynn Carlson, representing the Aggregate Retailers of Minnesota, discussed and ASTM standard test that measures the*

*degradation of rock. She will provide the test procedures to Barb McCarthy. This will help to resolve the limestone issue.*

- A design component is missing – the loading rates need to be included along with any reductions that can be taken for sidewall.

General questions:

How are comments going to be handled? How will we know when it is final? *Barb McCarthy reviewed the 10-step process for RS&G development – this is posted on the website.*

How will RS&G's be enforced at the local level? This needs to be reviewed – specifically rule requirements (may need review by Leah Hedman, AG office). Bring back to TAP – as the first RS&G developed.

### **Open Forum:**

No additional discussion.

Other information: Two more applications have been received. Delta Environmental for treatment systems and Ring Industrial 's EZ Flow synthetic drainfield media. The Panel decided to schedule an additional meeting for August 27, to be held at the Veteran's Service Building. Items to cover: additional info on Orenco's application, EZ Flow application or Delta application, whichever is complete and ready for review.

Meeting adjourned at 3:18 pm.