

**Sewage Treatment Systems Technical Advisory Committee  
MEETING MINUTES**

Date: Tuesday, June 11, 2019  
Time: 10:00 a.m.  
Place: BWC/OSOSH  
13430 Yarmouth Drive  
Pickerington, Ohio

**TAC Members in Attendance:**

Manufacturer Representative & Committee Chair: Chris Mandich  
OEHA Registered Sanitarian & Vice Chair: Dan Lark, Lake County General Health District  
AOHC Representative & Clermont County Health Commissioner: Julianne Nesbit  
Manufacturer Representative: Zak Sherman  
ODH Director of Health Representative & TAC Secretary: Rachel Townsend  
Designer: David Chronister  
Ohio EPA DSW Engineer: Brian Hall  
Professional Engineer: Walt Sandefur  
Ohio Townships Association Representative: Gary Salmon  
Academic: Karen Mancil

**Absent:**

Public Representative: Christopher Schraff  
ODA Soil Scientist: Matt Lane  
Installer/Service Provider: Chas Kaiser  
AOHC Representative & Henry County Health Commissioner: Mark Adams

**Guests:**

James Conley: Hydro-Action  
Don Carabin: Norweco  
Scott Hetrick: Norweco  
Dewey Conrad: Ecological Tanks Inc  
Paul Rice: Tangent Company  
Travis Genshock: Tangent Company

**Other ODH participants:**

Dusten Gurney  
Audrey Blakeman  
Kyle Bianco  
Mike Laubert

**Welcome and Introduction:**

The meeting was called to order at 10:05 a.m. by Chairman, Chris Mandich. Meeting attendees were introduced.

**TAC Appointments Update**

Mark Adams, Health Commissioner of Henry County Health Department, representing the Association of Ohio Health Commissioners, has been formally appointed by Larry Obhof, President of the Ohio Senate. Mark is filling the vacancy left by Kim Cupp's departure. The term runs through January 1, 2020.

#### **Approval/modification to the agenda**

Chris Mandich asked if there were proposed modifications to the agenda. Rachel Townsend requested that a discussion take place centered around updating the Standards & Guidelines to coincide with the Field Data discussion and draft Appendix E for product renewals. It was also noted that Norweco be placed on the agenda to hand out the product application for the Singulair R3, which will be in front of TAC for consideration on the July 2019 meeting agenda. Gary Salmon motioned to approve the amended agenda, seconded by Dan Lark. All were in favor and the motion was approved.

#### **Approval of May 14, 2019 Minutes**

Chris asked if there were any requests to amend the draft minutes of the May 2019 meeting. There were none. Zak Sherman motioned to approve the minutes and Julianne Nesbit seconded the motion. All were in favor.

#### **Tangent Company**

600 GPD Landsaver MBR Seeking approval for:

- <20 Fecal Coliform Reduction for Unrestricted Surface Spray Application
- <200 Fecal Coliform Reduction for Restricted Surface Spray Application
- <1,000 Fecal Coliform Reduction for a 2' Soil Depth Credit
- <10,000 Fecal Coliform Reduction for a 1' Soil Depth Credit
- CBOD<sub>5</sub> <25mg/L and TSS <30mg/L for sizing reduction
- Meeting the requirements for Continuous Flush Drip Distribution

Paul Rice and Travis Genshock went before the committee to present the application request on behalf of Tangent Company. The presentation began with a brief overview and history of the Special Device Approval granted for two system installations in Geauga County for the purpose of gathering data. Paul and Travis described the current treatment train's components, the research and development that went into the proprietary design, and benefits of using a membrane bioreactor for treatment of sewage effluent. The treatment processes were discussed in detail and differences between the proposed plastic tank and concrete tank designs were highlighted. The programming logic of the control panel and monitoring mechanisms, specifications of the pumps, regenerative blower, filter, and diffusers were also emphasized. A video showing the aeration and constant scouring of the membrane taking place in the aerobic/ultrafilter tank was displayed and discussed. Specifications of the UV disinfection, proposed sampling mechanisms, and proper disinfection of the filter prior to commissioning of the system were also reviewed.

Focus moved to discussion around the field data that was collected to support the product application. The field data was collected from a 4-bedroom home, which would equate to a daily design flow of 480 gallons per day (GPD). The application requests a design flow of up to 600

GPD. Tangent stated that the MBR incorporates a 2x safety factor and could process up to 1200 GPD. TAC members expressed concern about the difference between the recorded flow that took place during the gathering of field data and requested design capacity. Data collected showed a flow of 600 GPD on twenty-two (22) days. The majority of the days were tested between 300-400 GPD. Comparisons to NSF hydraulic loading and protocol were discussed among the panel and attendees.

Additional questions/concerns were asked regarding the data collection and analyses such as, but not limited to: 1.) Lack of submission of raw data, 2.) Discrepancies with Fecal Coliform and E. coli reporting, (two days in a row each have a reported CFU/100mL of 1.25) 3.) lack of data on 2 “wash” days, 4.) Gaps in testing, etc. TAC emphasized the concern was not the treatment level that was being obtained but the inconsistency in the flow and rated capacity. Additional items of note that were discussed regarding the application included: 1.) The proposed concrete tank specifications and the required documentation for structural integrity, water tightness, and anti-buoyancy requirements, 2.) service provider training regiment, network availability of service providers, and service contracts not being included in the sale of the unit (as compared to NSF tested products) 3.) failsafe specifications, 4.) scalability, and 5.) intermittent and seasonal use. A conversation was held regarding the statutory deadline(s) associated with the application. Ultimately a motion to table the application until the July meeting to allow Tangent the opportunity to gather and provide additional information to TAC members was made by Julianne Nesbit and seconded by Gary Salmon. All were in favor.

#### **Draft Calculating Spreadsheet for Product Data**

Walt Sandefur provided updates concerning the draft calculating spreadsheet. Minor edits have been incorporated after working with OEPA and feedback from TAC and ODH. Walt would like to make this spreadsheet available to manufacturers as a beta version through ODH and ask that those manufacturers report any “bugs” that are encountered as they use the spreadsheet to analyze product data. ODH will forward the spreadsheet to Manufacturers upon their request.

#### **Field Data Discussion & TAC Standards and Guidelines**

TAC Members discussed the draft Appendix E for 2020-2025 product renewal applications. Some editorial changes were recommended to help provide clarification. Conversation was held around whether there would be pushback from manufacturers if they are required to list all of their manufacturer trained service providers and whether other mechanisms of verification would be more suitable. Discussion then focused around service providers and requirements for collection of NPDES samples when a health district has chosen not to collect them. OAC 3701-29-19 (D)(2) requires that a service provider must provide service to every component of the system. It was recommended that the language in the appendix be changed to reflect the language in O.A.C. 3701-29-19(E)(1) in regard to requiring annual effluent samples for systems that have gained coverage under the NPDES General Household permit. Overall challenges with effluent sampling in general were also discussed (lack of labs, location of labs, holding times for samples, enforcement challenges, etc.)

Members conversed about the challenges associated with seasonal data collection in Ohio. Manufacturers present cited previous concerns that had been discussed with field data collection and how stringent the requirements already are in Ohio. Concerns were raised on whether

adding additional requirements are going to eliminate manufacturers from conducting business in Ohio and what cascading effects may ensue. Karen motioned to adopt Appendix E with the incorporated changes, seconded by Dan Lark. Chris Mandich abstained from the vote, all others in favor. Minor edits to the application page and standards and guidelines were also discussed. A motion to incorporate the editorial changes into the standards and guidelines was made by Walt Sandefur, seconded by Julianne Nesbit. All were in favor.

**Additional Updates**

Norweco's R3 application was handed out to the TAC members that were present and mailed to those that were absent. This application will come to the TAC committee at the July 2019 meeting.

**Next meeting:**

The next TAC meeting is scheduled for July 9, 2019 at BWC/OCOSH.

**Adjourn:**

Motion to adjourn was made by Gary Salmon and seconded by David Chronister. Motion carried, and the meeting was adjourned at 2:25 p.m.

Approved on 8/13/2019 as signified by:  
  
Chris Mandich, TAC Chairperson  
Dan Lark TAC Vice Chairperson  
Rachel Townsend, Secretary