

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

Date: Tuesday, August 13, 2019  
Time: 10:00 a.m.  
Place: BWC/OSOSH  
13430 Yarmouth Drive  
Pickerington, Ohio

**TAC Members in Attendance:**

Manufacturer Representative & Committee Chair: Chris Mandich  
Manufacture Representative: Zak Sherman  
ODH Director of Health Representative & TAC Secretary: Rachel Townsend  
Ohio EPA DSW Engineer: Brian Hall  
Professional Engineer: Walt Sandefur  
Ohio Townships Association Representative: Gary Salmon  
ODA Soil Scientist: Matt Lane  
OEHA Registered Sanitarian & Vice Chair: Dan Lark, Lake County General Health District  
Designer: David Chronister  
AOHC Health Commissioner: Julianne Nesbit, Clermont County Health Commissioner  
Public Representative: Christopher Schraff  
Installer/Service Provider: Chas Kaiser  
Academic: Karen MancI  
AOHC Health Commissioner: Mark Adams, Henry County Health Commissioner

**Guests:**

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

**Other ODH participants:**

Dusten Gurney  
Kyle Bianco  
Heather Coglianese  
Audrey Blakeman

**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**

All positions are currently filled. It was noted that 9 of the 14 TAC members appointments will expire on or before January 1, 2020. Those who wish to seek reappointment will need to work with their appointing authority to initiate the appointment process.

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

Chris Mandich asked if there were proposed modifications to the agenda. None were noted. Motion to approve the agenda made by Gary Salmon, seconded by Julianne Nesbit, all were in favor.

### **Approval of June 11, 2019 Minutes**

Chris asked if there were any requests to amend the draft minutes of the June 2019 meeting. There were none. A motion to approve the June minutes was made by Julianne Nesbit, seconded by Gary Salmon, all were in favor.

### **Discussion of July 9, 2019 Notes**

A quorum was not present at the July 9, 2019 meeting. No formal actions were able to be made. Informal meeting notes were still recorded. Chris Mandich asked for any editorial comments regarding the informal notes. None were made.

### **Tangent Company**

Landsaver MBR seeking approval for their plastic tank model rated for up to 360 gallons per day design capacity:

- <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 on behalf of Tangent Company. The application was previously withdrawn at the July TAC meeting and resubmitted for consideration of only the plastic tank model with a specific design capacity of up to 360 gallons per day. Paul gave a brief recap of the edits and revisions incorporated into the application including, but not limited to, a review of the data submitted, failsafe mechanisms, shutdown and operating warnings, tanks specifications, service and maintenance requirements, sampling and startup specifications, and general editorial changes overall. Conversation ensued.

Similarities and disparities between the tangent field trial, NSF 40/NSF 245 policy and procedures, and the TAC Standards & Guidelines were discussed. Tangent then detailed specifications regarding the hydraulic capacity, filtration cycles, design capacity, ultrafilter, and UV dosage of the Landsaver MBR. As previously indicated, Paul stated that Tangent plans to conduct future testing at Chagrin wastewater treatment plant at a higher design capacity (up to 600 GPD) with the intent of submitting a modification request to allow for a higher design capacity and to seek approval for meeting the NPDES standard for direct discharge. Input from committee members was sought. Items such as ammonia removal and seasonal data points were discussed.

Another point of discussion revolved around the potential to utilize the Landsaver MBR in alternative tank molds and configurations. Tangent would like to allow designers the option to select from approved tanks throughout the state as long as the tanks meet minimum depth and volume specifications. Questions arose and concerns were identified. Conversation ensued regarding previous applications and product approvals. It was noted that many products that have received

Director's approval previously were evaluated against different standards and guidelines. All products that have been approved by the Director since 2007 will have the opportunity to apply for renewal and will be evaluated against the current standards and guidelines.

The presentation concluded and the floor was opened for comments. Questions regarding statements on Tangent's website were discussed. Additionally, conversation was held regarding some of the wording in the general description segment of Tangent's application. It was recommended that minor editorial changes be made to help avoid potential confusion and to more readily align with the terminology throughout the standards and guidelines. Comments were also made regarding information that has been presented by Tangent Company representatives at previous contractor workshops and other public forums. Chris Schraff made the motion to recommend approval of the application with two editorial changes. Karen Mancl seconded the motion. Chris Mandich opposed the motion. All others were in favor.

### Norweco

Norweco Singlair R3 System seeking approval for:

- NPDES Discharging System
- Type 4 Gray Water Use

Due to the TAC not having a quorum present at the July meeting, Scott Hetrick of Norweco requested that their application request be moved to the August meeting. Scott went before the committee to provide a brief presentation. Scott delivered an abbreviated history of the product as well as an overview of the system components. The system was tested and certified to NSF 350 (Onsite Residential and Commercial Water Reuse Treatment Systems). Additional testing was conducted for dissolved oxygen and ammonia in order to apply for the discharge standard. All ammonia data collected and reported was from the winter season.

The effluent limitations specified in the Ohio EPA NPDES General Household Permit for ammonia is divided into two sub-parameters; summer (May1-October 31) and winter (November 1-April 30). Compliance with the effluent limitation for summer requires a geometric mean plus two standard deviations to be less than 2.0mg/L. Compliance with the effluent limitation for winter requires a geometric mean plus two standard deviations to be less than 4.5mg/L.

The TAC Standards and Guidelines (adopted May of 2018) require a minimum of 48 data points (demonstrating consistent performance within the range of temperature and conditions the system would be exposed to while operating in Ohio). The Standards and Guidelines do not currently specify a minimum number of samples per season as concerns have been discussed with logistics of scheduling 3<sup>rd</sup> party testing. The intent is that enough data points be submitted across the seasons with a confidence interval analysis to justify the amount of seasonal data submitted. Committee members questioned differences between the Singlair R3 system and other Norweco models that are already approved for discharge. The R3 model has an additional hydro-kinetic bio-film reactor prior to disinfection compared to the Singlair 960 model that has previously been approved for discharge. It was requested that Singlair 960 summer ammonia data be submitted in order to review, as the only difference between the treatment trains is the additional filter component. Ideally, if the Singlair 960 treatment train was able to demonstrate compliance with the summer ammonia effluent limitations, then so would the Singlair R3 series. Upon deliberation surrounding the statutory deadline of the application, Scott Hetrick formally withdrew the Singlair R3 application with the intent to resubmit the application with the additional data points requested by the TAC members.

**Additional Updates**

Chris Mandich asked for any additional updates. It was noted that the revised Standards and Guidelines with the newly adopted Appendix E (2020-2025 Product Renewal Standards) were still being reviewed by upper bureau management at ODH. Rule 13 is scheduled to be on the agenda for the Director's hearing August 22, 2019. Chris Mandich noted he would not be able to attend the September meeting due to a scheduling conflict.

**Next meeting:**

The next TAC meeting is scheduled for September 10, 2019 at BWC/OCOSH.

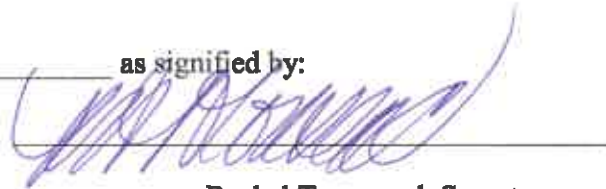
**Adjourn:**

A motion to adjourn was made by Chris Schraff and seconded by Gary Salmon. All in favor. The meeting concluded at 12:25 p.m.

Approved on

9/10/2019

as signified by:



Chris Mandich, TAC Chairperson  
Dan Lark TAC Vice Chairperson

Rachel Townsend, Secretary