

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

Date: Tuesday, March 13, 2018
Time: 10:00 a.m.
Place: BWC/OSOSH
13430 Yarmouth Drive
Pickerington, Ohio

TAC Members in Attendance:

Manufacture Representative & Vice Chair: Zak Sherman
ODH Director of Health Representative & TAC Secretary: Rachel Townsend
Professional Engineer: Walt Sandefur
Designer: David Chronister
ODA Soil Scientist: Matt Lane
AOHC Health Commissioner: Kim Cupp, Fulton County Health Commissioner
Installer/Service Provider: Chas Kaiser
AOHC Health Commissioner: Julianne Nesbit, Clermont County Health Commissioner

Absent:

OEHA Registered Sanitarian & Chair: Dan Lark, Lake County General Health District
Manufacturer Representative: Chris Mandich
Ohio EPA DSW Engineer: Brian Hall
Public Representative: Christopher Schraff
Academic: Karen Mancl

Vacant:

Ohio Townships Association Representative

Guests:

Aleks Yakhnitskly: Ohio EPA
Don Carabin: Norweco Inc
Cary Feller Jr: Consolidated Treatment
Kaitlyn Benson: Ohio Department of Agriculture

Other ODH participants

Dusten Gurney
Brandon Bernhardt
Kyle Bianco
Heather Coglianese
Mike Laubert

Welcome and Introduction:

The meeting was called to order at 10:05 a.m. by Vice Chairman Zak Sherman. Meeting attendees were introduced.

Selection of TAC Chair & Vice Chair

Zak opened the floor for discussion and any potential volunteers/nominees. Committee members commended Dan Lark on his service as Chair over the last two years. Zak Sherman nominated Chris Mandich to serve as the new Chair of the committee, seconded by Walt Sandefur. All in favor, motion so moved. Walt nominated Zak to continue as Vice Chair, this was seconded by Matt Lane, all were in favor, motion approved.

TAC Appointments Update

Kyle Bianco stated that the AOHC's nominee, Julianne Nesbit, Health Commissioner of Clermont County, had formally been appointed to the TAC by the Speaker, Ohio House of Representatives November 1, 2017. Ohio Townships Association has not yet identified a potential nominee to fill the current vacancy. Term expirations for each member were also stated.

Approval/modification to the agenda

Zak Sherman asked if any modifications to the agenda needed to be made and if it could be approved. No modifications noted. Julianne Nesbit motioned to approve the agenda, seconded by David Chronister. All were in favor.

Approval of December 15, 2017 Minutes

Zak asked for any comments regarding the draft minutes from the December meeting. Kim Cupp made a motion to approve the minutes. David Chronister seconded the motion. All were in favor.

TAC Annual Report Review

Paragraph (G) of ORC 3718.03 requires the chairperson of the committee to prepare an annual report concerning the activities of the committee and submit the report to the Ohio General Assembly. Zak asked for any comments regarding the drafted annual report. Walt motioned to approve the report, seconded by Chas Kaiser. All in favor.

Updates on the TAC Standards and Guidelines for Data Submission

Since 2007 products have been approved using standards and guidelines that have been periodically revised. These updates reflected changes in the requirements of the General Permit, advances in science and understanding of STS treatment technologies, and the updates to OAC 3701-29 that became effective January 1, 2015. Members discussed potential revisions to the standards and guidelines. In the most recent draft it has been recommended that a minimum number of samples required for data point submission if not wanting to use the confidence interval analysis be 96 data points each obtained from a separate day to mimic the minimum number of data points required in NSF standard 40. Additionally, that if a manufacturer would like to use the confidence interval analysis that 48 data points each obtained from a separate day could be utilized. In both scenarios the manufacturer/submitting party would need to be able to demonstrate consistent performance within the range of temperature and conditions the system would be exposed to while operating in Ohio. The committee did however express some concerns about potentially being too restrictive on location of testing facilities.

The committee also discussed potentially incorporating some language from Ohio Administrative Code (OAC) 3701-29 to help align requirements of future submittals with rule requirements. The discussion focused mainly around the current requirements for septic tank submission and also requirements for failsafe mechanisms. Currently septic tanks are reviewed administratively by the Ohio Department of Health. As part of the application review manufacturers are required to submit an application that includes structural and physical design information including buoyancy calculations and associated anti-buoyancy measures. These items are not always directly submitted as a part of the product application to TAC.

Similarly, OAC 3701-29 now requires alarms and controls to be on a commonly used household circuit and all other electrical components to be located on a different dedicated circuit. This information is also not directly addressed in the TAC standards and guidelines. Discussion ensued about some inconsistencies and challenges when working with builders, developers, homeowners, electricians, etc. who are not always aware of some of the requirements but stressing education and ongoing system maintenance is key. Additional language will be added to the current draft and will be sent out for discussion at the next meeting.

Additional Updates

Zak Sherman asked for any additional updates. Rachel addressed the committee regarding identifying and registering service providers who have received manufacturer training. Health Districts are not always made aware from the registering contractor if system specific training/certification has been obtained as required by different product approvals. This has made it difficult for those home/property owners to locate accessible and certified service providers. Discussions and recommendations were made on how to help "streamline" this process, as well as, discussing that it should be discussed with manufacturers who submit product applications that require service providers to be manufacturer trained and certified. ODH also stated there are two product applications currently being reviewed for completeness.

Next meeting:

The next TAC meeting is scheduled for April 10, 2018 at BWC/OCOSH.

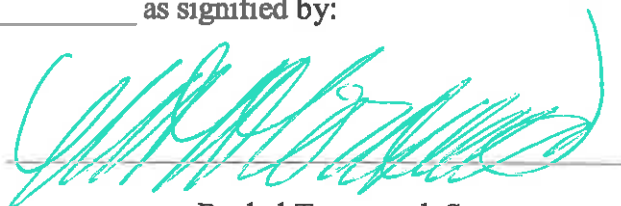
Adjourn:

Motion to adjourn was made by David Chronister and seconded by Kim Cupp. Motion carried and the meeting was adjourned at 11:15 a.m.

Approved on 4-10-2018 as signified by:



Chris Mandich, TAC Chairperson
Zak Sherman TAC Vice Chairperson



Rachel Townsend, Secretary

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

Date: Tuesday, April 10, 2018
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 & Vice Chair: Zak Sherman
ODH Director of Health Representative & TAC Secretary: Rachel Townsend
Designer: David Chronister
AOHC Health Commissioner: Kim Cupp, Fulton County Health Commissioner
AOHC Health Commissioner: Julianne Nesbit, Clermont County Health Commissioner
OEHA Registered Sanitarian & Chair: Dan Lark, Lake County General Health District
Ohio EPA DSW Engineer: Brian Hall
Public Representative: Christopher Schraff
Academic: Karen Mancl

Absent:

Professional Engineer: Walt Sandefur
ODA Soil Scientist: Matt Lane
Installer/Service Provider: Chas Kaiser

Vacant:

Ohio Townships Association Representative

Guests:

Aleks Yakhnitskly: Ohio EPA
Don Carabin: Norweco Inc
Milton Sutton: Frost Brown Todd

Other ODH participants

Dusten Gurney
Kyle Bianco
Mike Laubert

Welcome and Introduction:

The meeting was called to order at 10:01 a.m. by Chairman Chris Mandich. Meeting attendees were introduced.

TAC Appointments Update

Ohio Townships Association has not yet identified a potential nominee to fill the current vacancy. Kyle has reached out multiple times to the association and will work with Ohio Department of Health's Government Affairs to try to encourage moving forward with identification of a replacement nominee to be forwarded to the Governor's office.

Approval/modification to the agenda

Chris Mandich asked if any modifications to the agenda needed to be made and if it could be approved. No modifications noted. Chris Schraff motioned to approve the agenda, seconded by Julianne.

Approval of March 13, 2018 Minutes

Chris asked for any comments regarding the draft minutes from the March meeting. Dan Lark made a motion to approve the minutes. Chris Schraff seconded the motion. All were in favor.

Updates on the TAC Standards and Guidelines

Since 2007 products have been approved using standards and guidelines that have been periodically revised. These updates reflected changes in the requirements of the General Permit, advances in science and understanding of STS treatment technologies, and the updates to OAC 3701-29 that became effective January 1, 2015. Committee members reviewed the potential revisions to the standards and guidelines with those members who were not in attendance at the March meeting. In the most recent draft it has been recommended that a minimum number of samples required for data point submission if not wanting to use the confidence interval analysis be 96 data points each obtained from a separate day to mimic the minimum number of data points required in NSF standard 40. Additionally, that if a manufacturer would like to use the confidence interval analysis that 48 data points each obtained from a separate day could be utilized. Brian Hall noted that his agency will begin to develop a form/worksheet to help with data submission for future product applications.

The committee also reviewed the incorporated language from Ohio Administrative Code (OAC) 3701-29 to help align requirements of future submittals with rule requirements. The recap focused mainly around the current requirements for septic tank submission and also requirements for failsafe mechanisms. Currently septic tanks are reviewed administratively by the Ohio Department of Health. As part of the application review manufacturers are required to submit an application that includes structural and physical design information including buoyancy calculations and associated anti-buoyancy measures. These items are not always directly submitted as a part of the product application to TAC.

Similarly, OAC 3701-29 now requires alarms and controls to be on a commonly used household circuit and all other electrical components to be located on a different dedicated circuit. This information is also not directly addressed in the TAC standards and guidelines. Additional language was added to the current draft to address these items when applicable, but also not limiting potential items needing to be submitted to only these items being listed.

TAC Standards and Guidelines-Spray Irrigation

Karen addressed the committee regarding the current CBOD₅ and TSS requirements for spray irrigation; questioning their source of reference and whether or not they are too strict and limiting innovation and/or product applications. Concern was also expressed regarding if such stringent requirements will cause these systems to be cost prohibitive while taking into account public and environmental health. Karen noted that in the revised OSU bulletin for “On-site Sprinkler Irrigation of Treated Wastewater in Ohio” she and her colleagues are recommending a CBOD₅ limit of <25mg/L to address odor concerns and no TSS limit. The current special device approval for spray irrigation requires a CBOD₅ limit of <15mg/L and TSS limit of <18mg/L. Ohio EPA also has different standard requirements for systems permitted for land application depending on the sewage treatment classification (Class A, B, or C).
http://www.epa.state.oh.us/portals/35/rules/42-13_factsheet_feb08.pdf

Committee members pointed out that the numbers are reflective of the effluent limitations set forth for national pollution discharging elimination systems permitting requirements. Manufacturer representatives also noted that products are typically tested to NSF 40 and that they would not be testing a completely different system to get “Ohio Spray Approval” that it is not logistically or economically feasible, instead if they are not able to meet the required numbers they will not seek approval for that standard.

Chlorine as a disinfection device was also discussed for surface spray irrigation systems. Under current rules (OAC 3701-29) no disinfection residuals can be discharged to a soil absorption component. If a manufacturer wants to utilize chlorine as a disinfection device prior to dispersal then the effluent would also have to be dechlorinated prior to reaching the soil. Karen contended there are many benefits to allowing a chlorine residual to be dispersed to an application field. Other items discussed relating to spray irrigation included heat tape use, freezing rain encapsulating spray heads, damage to sprinklers by deer and wildlife, and damage by recreational activities such as ATVs. The revised bulletin was requested to be sent to TAC members for review and discussion.

Tertiary Treatment Guidelines

The most recent draft was handed out by Chris Schraff incorporating prior submitted comments with the proposal that any additional comments should be submitted by May 1st in order to discuss at the May 8th meeting.

Additional Updates

Chris Mandich asked for any additional updates. Karen spoke of an upcoming educational opportunity at the Molly Caren facility regarding STS siting and seasonal water tables. Brian Hall gave an update on the Nutrient Mass Balance Report that will be released by Ohio EPA within the coming weeks. This led to a brief discussion regarding nitrogen and phosphorous reduction goals in different areas of the country. The 5-year rule review process was additionally briefly discussed.

Next meeting:

The next TAC meeting is scheduled for May 8, 2018 at BWC/OCOSH.

Adjourn:

Motion to adjourn was made by Chris Schraff and seconded by Dan Lark. Motion carried and the meeting was adjourned at 11:15 a.m.

Approved on 5-8-2018 as signified by:



Chris Mandich, TAC Chairperson
Zak Sherman TAC Vice Chairperson



Rachel Townsend, Secretary

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

Date: Tuesday, May 8, 2018
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
Designer: David Chronister
AOHC Health Commissioner: Kim Cupp, Fulton County Health Commissioner
AOHC Health Commissioner: Julianne Nesbit, Clermont County Health Commissioner
OEHA Registered Sanitarian & Vice Chair: Dan Lark, Lake County General Health District
Ohio EPA DSW Engineer: Brian Hall
Academic: Karen Mancl
Professional Engineer: Walt Sandefur
ODA Soil Scientist: Matt Lane
Installer/Service Provider: Chas Kaiser

Absent:

Public Representative: Christopher Schraff

Vacant:

Ohio Townships Association Representative

Guests:

Aleks Yakhnitskly: Ohio EPA
Don Carabin: Norweco Inc
Milton Sutton: Frost Brown Todd
Michelle Harrison: Frost Brown Todd
Kaitlyn Benson: Ohio Department of Agriculture

Other ODH participants

Dusten Gurney
Kyle Bianco
Mike Laubert
Heather Coglianese
Audrey Blakeman

Welcome and Introduction:

The meeting was called to order at 10:01 a.m. by Chairman Chris Mandich. Meeting attendees were introduced.

TAC Appointments Update

Ohio Townships Association has identified a potential nominee to fill the current vacancy. The nominee has been forwarded to the Governor's office to initiate the formal appointment process.

Approval/modification to the agenda

Chris Mandich asked if any modifications to the agenda needed to be made and if it could be approved. No modifications noted. Zak Sherman motioned to approve the agenda, seconded by Kim Cupp.

Approval of April 10, 2018 Minutes

Chris asked for any comments regarding the draft minutes from the April meeting. Dan Lark made a motion to approve the minutes. Julianne Nesbit seconded the motion. All were in favor.

Updates on the TAC Standards and Guidelines

Since 2007 products have been approved using standards and guidelines that have been periodically revised. These updates reflected changes in the requirements of the General Permit, advances in science and understanding of STS treatment technologies, and the updates to OAC 3701-29 that became effective January 1, 2015. In the most recent draft it has been recommended that a minimum number of samples required for data point submission if not wanting to use the confidence interval analysis be 96 data points each obtained from a separate day to mimic the minimum number of data points required in NSF standard 40. Additionally, that if a manufacturer would like to use the confidence interval analysis that 48 data points each obtained from a separate day could be utilized. It was noted that the Appendix B table in the draft standards and guidelines needs updated. A motion was initiated by Julianne Nesbit to adopt the draft standards and guidelines with the amended revisions. The motion was seconded by David Chronister, all were in favor.

Ohio EPA has begun working on a spreadsheet with the help of Walt Sandefur to help simplify and standardize the data submission portion of product applications. This would allow a manufacturer to simply enter the date and test results into the spread sheet where the incorporated functions of the spreadsheet could then analyze all submitted data with regard to the standard(s) being sought by the applicant. Ohio EPA has analyzed 4 prior submitted sets of data with the spreadsheet to ensure the same conclusions are being met as previously analyzed. Currently, the spreadsheet is utilizing a 90% confidence interval for submissions with less than 96 data points. The spreadsheet will also include an influent sheet in case the TAC would like to include that later on. The spreadsheet will serve as a tool for product submission, not an appendix to the standards and guidelines. Once the spreadsheet is finalized the formulas and cells of the document will be locked, instructions drafted, and it will be available for use.

Updates on Spray Irrigation Workgroup

Discussion began regarding the differences in the spray irrigation special device approval (SDA) and the draft OSU bulletin 912. The SDA references bulletin 912 for design purposes but this has led to inconsistencies and differing interpretations from stakeholders and local health

districts. Differences between the SDA and draft bulletin include, but are not limited to: 1.) the treatment standards do not match, 2.) system types referenced in the bulletin that are not permissible in the SDA and Ohio Administrative Code (OAC) 3701-29 (e.g. lagoons), and 3.) setback requirements/horizontal isolation distances. The OSU bulletin is a research based publication that is used by additional agencies, states, etc. and although comments could be provided, the publication is not something the TAC has editorial privileges over.

The TAC then deliberated over updating the SDA to be more of an autonomous document in order to try and avoid future conflict and confusion with the anticipation of the draft bulletin moving towards publication. Questions and conversations were then had over timelines regarding the SDA and whether it was anticipated that surface spray application would be incorporated into the rules or remain under a SDA. The initial proposition was that because of the infancy and limited data (including, but not limited to, effectiveness, freezing and rotational delay, potential for run-off, changes and alterations to distribution networks and spray heads, etc.) on the technology that it would continue to be permissible under the SDA when the rules undergo the five-year rule review, but not in perpetuity. Karen also compounded upon goals of the updated bulletin such as including additional design examples, adding clarity to the bulletin, and new research and experience regarding application during winter. She also discussed the previous research conducted from winter studies at the Molly Caren, Coshocton, and Deer Creek State Park surface spray application system sites respectively as well. Additional information regarding the studies can be located on the OSU SETLL website. Chris Mandich will be reaching out to local health districts and additional stakeholders who have experience with spray irrigation systems to begin the effort of collecting data and feedback to help direct TAC's recommendations moving forward.

Tertiary Treatment Guidelines

The most recent draft was handed out by Chris Schraff incorporating prior submitted comments at the April TAC meeting with the proposal the additional comments be submitted for discussion at the May meeting. Comments received were handed out to initiate conversation. Initial discussion ensued over the proposed influent concentrations that should be used to determine the effectiveness of the proposed tertiary treatment device and clarification on how/why those numbers were selected. Brian Hall gave a brief history on why the numbers indicated in the proposed draft were selected and additional clarification regarding the minimum and maximum proposals for each parameter. The conversation then focused around the proposed ammonia influent concentrations versus the reporting requirements for ammonia and matching the analytical requirements of the NPDES general permit. Additional items of note that were then discussed regarding tertiary treatment included, but were not limited to: 1.) manufacturers warranty's terms and conditions, 2.) challenges associated with enforcement and permitting, 3.) the applicability for legacy systems, and 4.) test data required from third parties. Edits and recommendations will be added to the draft for further discussion.

Additional Updates

Chris Mandich asked for any additional updates. It was noted that two product applications were incomplete and sent back to the applicant requesting additional information and clarification. Two additional applications were in the beginning of the review process.

Next meeting:

The next TAC meeting is tentatively scheduled for June 12, 2018 at BWC/OCOSH.

Adjourn:

Motion to adjourn was made by Karen Mancl and seconded by Kim Cupp. Motion carried, and the meeting was adjourned at 11:20 a.m.

Approved on January 8, 2019 as signified by:



Chris Mandich
Dan Lark

TAC Chairperson
TAC Vice Chairperson



Rachel Townsend, Secretary