

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

Date: Tuesday –January 13, 2015

Time: 10:00 AM

Location: Ohio Department of Health 246 N High Street, Columbus

TAC Members in Attendance:

ODH Director of Health Representative & TAC Secretary – Rebecca Fugitt

ODNR Soil Scientist – Matt Deaton

AOHC Health Commissioner – Charles Patterson, Clark County Combined Health District

Manufacturer Representative – Trent Lydic, Jet, Inc.

Professional Engineer – Walt Sandefur, Sandefur Consulting

Ohio Townships Association – Perry Brock

Installer/ Service Provider – Mark Fehring, Fehring Services

Public Representative – Chris Schraff

Manufacturer Representative – Zak Sherman, Infiltrator Systems, Inc.

OEHA Registered Sanitarian & Chair – Dan Lark, Lake County General Health District (excused)

AOHC Health Commissioner –Raymond Saporito, Ashtabula County Health Department (excused)
Designer—Dan Michael

Absent: None

Vacant:

Academic

OEPA DSW Engineer

Guests:

Christopher Hall, Cincinnati DSW

Scott Hetrick-Norweco Inc.

Chris Mandich, Jet Inc.

Shelly Wyhensinger, Jet Inc.

Other ODH participants: Dusty Gurney and Andy Thomas

Welcome and Agenda review

The meeting was called to order by Dan Lark. Introductions were made by all in attendance. The meeting agenda was reviewed. No changes to the agenda were requested.

Approval of November 18, 2014 meeting minutes

The committee reviewed minutes from the November meeting. Perry Brock made a motion to approve the November 18, 2014 TAC meeting minutes. Chris Schraff seconded the motion. Committee members present voted to approve the meeting minutes.

Sewage Treatment Systems Technical Advisory Committee

MEETING MINUTES

Review of Norweco Inc Modification request for:

A.) Changes to the Model AT 1500 Ultraviolet Disinfection System

Scott Hetrick from Norweco presented to the TAC on changes made to this unit. The Teflon sleeve is now "baked on" and shrink wrapped on the quartz tube instead of being loose wrapped on the tube. Norweco found that the loose wrap technology was causing problems in the field.

Mr. Hetrick also presented a change in the wiring configuration of the quartz tube bulb connection to keep it from coming loose and making it more secure and stable.

Discussions about these modifications were held regarding the wattage of the bulbs and concerns on the maintenance and frequency of this new bulb configuration. This unit still needs to be removed and serviced every six months.

Ray Saporito made a motion to approve these modifications of the Model AT 1500 Ultraviolet Disinfection System as presented to the Technical Advisory Committee. Mark Fehring seconded. Motion carried.

B.) The Addition of the Hydro-Kinetic Biofilm Reactor to the following units: Singulair Model 960, Singular Green Model 960, Singulair Model TNT (NPDES) and Singulair Green Model TNT (NPDES)

Scott Hetrick presented on the use of the Hydro-Kinetic Biofilm Reactor to be an addition to the Singulair Model 960, Singular Green Model 960, Singulair Model TNT (NPDES) and Singulair Green Model TNT (NPDES).

Mr. Hetrick request for approval was to be able to add this Hydro-kinetic biofilm reactor to these specific Norweco units. This addition was to address concerns from field sampling which could be related to improper sample collection, or if additional treatment of the effluent was required. This modification request is for homeowners to have an optional to add-on the Hydro-Kinetic Biofilm Reactors to specific Norweco units to ensure effluent quality issues.

Discussion was held on the data that was presented and it was also noted that the chlorination/de-chlorination will need to be removed from all literature. Norweco will also need to provide a NPDES schematic that shows where in the unit the Hydro-Kinetic Unit biofilm reactor is located.

Zak Sherman made a motion to approve the modification of the optional addition of the Hydro-Kinetic Biofilm Reactor to the following units: Singulair Model 960, Singular Green Model 960, Singulair Model TNT (NPDES) and Singulair Green Model TNT (NPDES) with revised schematics provided. Perry Brock seconded. Motion carried.

Sewage Treatment Systems Technical Advisory Committee

MEETING MINUTES

Review of Jet Inc. modification request for addition of separate pump tanks to the Jet 1500 Series BAT Media Systems (J-500-P500) for NPDES upgrade installations.

Trent Lydic of Jet presented to the TAC modifications to the Jet 1500 Series BAT Media Systems (J-500-P500) for use in upgrading existing discharging systems to meet the approved product configuration for NPDES discharge. Mr. Lydic distributed handouts to support the Jet, Inc. modification request and briefly discussed reasons for the modifications. The original approvals of these systems were in one large tank configuration with multiple compartments and the modification request is for the option to be able to set the pump tank as a separate tank for the NPDES systems. This would allow for retrofitting existing systems and for ease of installation of two tanks instead of one.

Discussion was held regarding additional information necessary for the schematics of these systems. If a separate tank is added, the notes on the schematic need to indicate and establish the minimum and maximum pump tank capacity. The question was raised if the pump tanks could be either concrete or plastic, and Jet responded that it does not matter, but the volume of treated effluent in the tanks would be the key to the size of the tank and the float settings.

Mark Fehring made a motion to approve the modification of the Jet, Inc. Jet 1500 Series BAT Media systems (J-500-P500) NPDES systems with notes on the schematics to indicate minimum and maximum tank capacity and volume needed for options on the additional separate pump tanks on the NPDES systems and for the option of separate pump tank configurations for retrofitting existing NPDES systems. Chris Schraff seconded motion. Motion carried and Trent Lydic abstained.

Discussion of development of standards for tertiary treatment

No update at this meeting on these standards.

TAC Appointments:

Rebecca Fugitt discussed the vacant positions on the TAC. Dan Michael was introduced to the committee and welcomed. Mr. Michael was recently appointed by Senator Faber's office as the appointment to the committee as the Designer representative. His term is to expire on Jan 1, 2017.

Sewage Program Updates

Rebecca informed the TAC that the Director did not approve Infiltrator's ATL system. That journal entry for denial was based on a bed configuration. Other sand lined systems were being reviewed at this time for consistency with the administrative rules.

Staff is looking at creating pages on the website for Frequently Asked Questions (FAQ's) on the new rules and soil scientist and soils page.

Next Meeting

There are currently no products that are ready for the February TAC meeting. The next TAC meeting will be held on March 10, 2015. The location will be announced later.

Adjourn

Sewage Treatment Systems Technical Advisory Committee
MEETING MINUTES

Motion to adjourn was made by Trent Lydic and seconded by Charlie Patterson. Motion carried and meeting adjourned.

Approved on 2-10-2015 as signified by:



Dan Lark, TAC Chairperson



Rebecca Fugitt, Secretary

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

Date: Tuesday –February 10, 2015

Time: 10:00 AM

Location: Ohio Department of Health 246 N High Street, Columbus

TAC Members in Attendance:

OEHA Registered Sanitarian & Chair – Dan Lark, Lake County General Health District

ODH Director of Health Representative & TAC Secretary – Rebecca Fugitt

ODNR Soil Scientist – Matt Deaton

AOHC Health Commissioner – Charles Patterson, Clark County Combined Health District

Manufacturer Representative – Trent Lydic, Jet, Inc.

Professional Engineer – Walt Sandefur, Sandefur Consulting

Ohio Townships Association – Perry Brock

Installer/ Service Provider – Mark Fehring, Fehring Services

Public Representative – Chris Schraff

AOHC Health Commissioner –Raymond Saporito, Ashtabula County Health Department

Absent:

Manufacturer Representative – Zak Sherman, Infiltrator Systems, Inc. (excused)

Designer—Dan Michael

Vacant:

Academic

OEPA DSW Engineer

Guests:

Brian Parker--Eljen

Mark Stump—OEPA DWS Engineer

Christopher Hall, Cincinnati DSW

Scott Hetrick-Norweco Inc.

Tim Peter-StreamKey

Mike Felton-StreamKey

Other ODH participants: Dusty Gurney, Andy Thomas, and Steve Schmidt

Welcome and Agenda review

The meeting was called to order by Dan Lark. Introductions were made by all in attendance. The meeting agenda was reviewed. No changes to the agenda were requested.

Approval of January 13, 2015 meeting minutes

The committee reviewed minutes from the January meeting. Charlie Patterson made a motion to approve the November 18, 2014 TAC meeting minutes. Chris Schraff seconded the motion. Committee members present voted to approve the meeting minutes.

Sewage Treatment Systems Technical Advisory Committee

MEETING MINUTES

Review of Eljen Modification request for:

Mr. Parker gave a brief summary of the previous Eljen approvals and a broad overview of the modification request that was being sought at this meeting. Dr. Jack Watson from Pennsylvania State University joined the meeting via phone to help explain the Hydrus modeling and results that were being presented for today's modification request.

A). Request for 1 foot soil depth credit for gravity fed systems based on new testing

Mr. Parker presented his data to the TAC but there were some concerns that the new data was not complete. Walt Sandefur indicated that raw data for fecal was needed and that the confidence interval was calculated incorrectly. Charlie Patterson inquired about the wide swings of the data points especially with a passive system.

Discussion was held on the issues related to appropriate testing of these types of systems for there is no true NSF standard for these pretreatment/disposal types of products at this time for fecal reductions and what really causes these wide outliers in the data points.

Charlie Patterson made a motion to table this request until more information on how the data points were collected and the points of collection on this request. Chris Schraff seconded the motion. Committee members present voted to approve this motion.

B.) Request for modification of the design requirements when using Eljen GSF in sand mound applications.

During Mr. Parker's presentation, it was noted that the mound application is supposed to have 12 inches of sand under the pressure distribution and not 6 inches as used for the test data. Dr. Watson joined the meeting via telephone to help Mr. Parker discuss the Hydrus modeling and what their test results showed. The modeling presented did not demonstrate the point of saturation mounding that would occur.

Discussion was held on this request, and the data and what was collected and shown. Mr. Lydic pointed out that some of the issues the TAC were having regarding this modeling and this configuration was part of a bigger issue that will be addressed and part of the discussion when a Special Device Approval for Sand Lined Technologies is developed.

Mr. Parker addressed the TAC and requested a specific list of what needs to be demonstrated to gain approval. Then Mr. Parker requested this modification for the sand mound application be tabled so he could get time information that the TAC needs. Ms. Fugitt will send a compiled list back to Mr. Parker of the TAC's questions about this application.

Ray Saporito made a motion to table this request because the application was incomplete. Mark Fehring seconded motion. Committee members present voted to approve this motion.

Sewage Treatment Systems Technical Advisory Committee MEETING MINUTES

C). Request for approval of the GSF product line in bed applications.

Mr. Parker also acknowledged he recently became aware of previous products that were approved and going through revocation for the wide bed configuration and another company being denied approval based on the wide bed configuration, but still wanted to present his data for the modification request item number three on the agenda. Mr. Parker was seeking to go on record to get an approval but understood that approval request would also be denied. He was seeking assurance from ODH/TAC indicating that if the state (Ohio) changes their current stance on the bed configuration the data he presented would be enough that his product could be used in bed applications. TAC members discussed this request and indicated that if Ohio changes its stance on sand-lined bed systems, protocols would require Eljen submit a new request to TAC. The committee would not be able to issue a new approval on an old request that had been previously denied without voting.

Ray Saporito made a motion to table this request because the application was incomplete. Mark Fehring seconded motion. Committee members present voted to approve this motion.

Discussion of development of standards for tertiary treatment and modification request

The TAC held discussions about modification requests and the need for new standards on requesting modifications for tertiary treatment. Ms. Fugitt suggested that modifying language on the application sheet, standards and guidelines for all modification requests. In past meetings there was some discussion about ODH doing Administrative review of modification request. The question came up where the line is drawn between ODH doing those reviews and the TAC doing these modification requests

Discussion was also held on the need to add to the Standards and Guidelines the outline on what happens to products that come in and the TAC has a tie vote.

TAC Appointments:

Rebecca Fugitt discussed the vacant positions on the TAC.

Sewage Program Updates

- Rebecca informed the Committee on the Presby approval and revocation—Informed the TAC since it is in litigation that no one is to discuss this matter
- Some journal entries were delayed due to review of language within them
- Informed the TAC about ODH approach to soil scientist alternatives
- Local rule issues were discussed.

Next Meeting

There are currently no products that are ready for the March TAC meeting. The next TAC meeting will be held on April 14, 2015. The location will be announced later.

Adjourn

Motion to adjourn was made by Perry Brock and seconded by Matt Deaton. Motion carried and meeting adjourned.

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

Approved on 8-11-15 as signified by:



Dan Lark, TAC Chairperson



Rebecca Fugitt, Secretary

Raymond D. Fugitt, vice chairperson

Sewage Treatment Systems Technical Advisory Committee

MEETING MINUTES

Date: Tuesday –August 11, 2015

Time: 10:00 AM

Location: Ohio Department of Natural Resources 2040 Morse Rd, Columbus

TAC Members in Attendance:

OEHA Registered Sanitarian & Chair – Dan Lark, Lake County General Health District

ODH Director of Health Representative & TAC Secretary – Rebecca Fugitt

ODNR Soil Scientist – Matt Deaton

AOHC Health Commissioner – Charles Patterson, Clark County Combined Health District

Professional Engineer – Walt Sandefur, Sandefur Consulting

Ohio Townships Association – Perry Brock

Public Representative – Chris Schraff

AOHC Health Commissioner –Raymond Saporito, Ashtabula County Health Department

Manufacturer Representative – Zak Sherman, Infiltrator Systems, Inc

Absent:

Designer—Dan Michael

Installer/ Service Provider – Mark Fehring, Fehring Services

Vacant:

Academic

OEPA DSW Engineer

Manufacturer Representative

Guests:

Garrett Jensen-Norweco Inc.

Tim Peters-StreamKey

James and Rene Dye—Wastewater Solutions

James Conley—Hydro-Action Industries

Chris Mandich and Shelly Wybensing, Jet Inc.

Calvin Locker—Ecological Tanks

Other ODH participants: Dusty Gurney, Andy Thomas, and Rachel Townsend

Welcome and Agenda review

The meeting was called to order by Ray Saporito. Introductions were made by all in attendance. The meeting agenda was reviewed. No changes to the agenda were requested.

Approval of February 10,, 2015 meeting minutes

The committee reviewed minutes from the January meeting. Perry Brock made a motion to approve the February 10, 2015 meeting minutes. Chris Schraff seconded the motion. Committee members present voted to approve the meeting minutes.

Sewage Treatment Systems Technical Advisory Committee

MEETING MINUTES

Ecological Tanks – Calvin Locker

Modification request to update applicable control panels

Mr. Locker gave a brief summary of the previous Aqua Aire and Aqua Safe approvals and the approval of the original submittal used various control panels for all their treatment trains. Due to suggestions from installers and service providers the various control panels had been modified to work and do their intended purpose in the field. Mr. Locker then laid out all the control panels and what each one did. Mr. Locker had provided a simpler table to show the intended use of these panels. Some panels were in use since 2007 but had been discontinued and modified but Mr. Locker had included those since there were systems out there still in use.

Zak Sherman made a motion to accept these modifications with a revised table indicating those control panels that have been discontinued and those that are still in use. Perry Brock seconded motion. Committee members present voted to approve this motion.

Hydro-Action—James Conley

Modification request for the AP SNG series with UV Disinfection and CLP SNG Series with UV Disinfection to allow for the option of integrated or optional pretreatment tank pump and filter tanks for the 2 foot soil depth credit, NPDES and Spray Irrigation.

Mr. James Conley summarized his modification request of the use of the integrated or optional pretreatment tanks, pump and filter tanks for both the concrete and fiberglass units. This request came in due to different applications of treatment trains and the filter tank specifically for the spray system.

TAC members inquired about the filter in the tank for the 2 foot soil depth credit, the NPDES, and Spray Irrigation technology. Mr. Conley stated that there was no change to the treatment with the use of the filter. TAC members also inquired about the optional uses and the different configurations of these optional uses and whose option it was to submit to the local health departments. Mr. Conley stated that these options and different configurations were up to the designer.

Rebecca Fugitt then stated that the Manuals would need to be revised to give the designer those options when designing systems utilizing these units. Walt Sandefur stated there may be a need for drawings of each different schematic showing all possibilities with the individual and integrated tankage with and without filters to be posted on the web site to help designers and local health districts.

Charles Patterson made a motion to accept these modifications with a revised manual stating all optional choices would come from the designer and all the different schematics dealing with the individual and integrated tankage with and without filters will be available to place on the web site. Chris Schraff seconded motion. Committee members present voted to approve this motion.

Sewage Treatment Systems Technical Advisory Committee

MEETING MINUTES

Discussion of Special Device Approval for alternative use of engineered drainage

Rebecca informed the TAC committee that the OSU report on Engineered Drainage using DRAINMOD uses distances that do not meet our current sewage rules and seeking guidance on what direction should be taken to allow for use of this information. Discussion followed with TAC recommending that ODH move forward with development of a special device approval to allow the closer drain spacing utilized in the models run by OSU. TAC also suggested that the 1 and 1.5 foot drain depth be eliminated. Matt Deaton made a motion to work on a special device approval for the OSU Engineered Drainage using DRAINMOD and its results. Zak Sherman seconded. Committee members present voted to approve this motion

TAC Appointments:

Rebecca Fugitt discussed the recent vacant position for the Manufactures appointment due to the untimely death of Trent Lydic. Rebecca said she has heard nothing on the OEPA position and was going to reach out again to a person that could fill the academia position.

Sewage Program Updates

- Rebecca informed the Committee on the Presby approval and revocation—informed the TAC it is still in litigation due to Presby hiring a new legal thus delaying the hearing which is now scheduled for early October.
- Sewage Appeals Board—No action at that level yet
- The Director Approved the Centralized Institute Decentralized Wastewater Treatment Operation and Maintenance training in lieu of manufacture training for systems installed after 2007 except for those have a direct discharge under coverage from NPDES.

Chris Mandich from Jet expressed concern about this alternative training approved by the director for all systems except for discharging. Mr. Mandich stated to the committee that he attended this training and stated that it was a great class for those that needed the basic information but had nothing on any specific units. As a manufacturer he was concerned that proper O&M would not be followed for any specific unit.

Walt Sandefur suggested if it was possible to add a ½ day class following the training to allow for the different manufactures to present OM information specific to their units. Also stating that information must go out that only factory authorized parts/components must be used in these TAC approved systems.

Next Meeting

The next TAC meeting will be held on September 8, 2015. The location will be at ODNR. We have at least on modification request that was submitted in early August.

Adjourn

Motion to adjourn was made by Matt Deaton and seconded by Perry Brock. Motion carried and meeting adjourned.

Approved on _____

9/9/2015

as signified by:



Dan Lark, TAC Chairperson



Rebecca Fugitt, Secretary

Sewage Treatment Systems Technical Advisory Committee MEETING MINUTES

Date: Tuesday –September 8, 2015

Time: 10:00 AM

Location: Ohio Department of Natural Resources, Building E Assembly Center, 2040 Morse Rd, Columbus

TAC Members in Attendance:

Name

Dan Lark, Lake County General Health District (Chair)
Ray Saporito, Ashtabula County Health Department (Vice-Chair)
Rebecca Fugitt, Ohio Department of Health (Secretary)
Matt Deaton, ODNR
Charles Patterson, Clark County Combined Health District
Walt Sandefur, Sandefur Consulting
Perry Brock
Chris Schraff
Zak Sherman, Infiltrator Systems, Inc.

Representing

OEHA Registered Sanitarian
Association of Ohio Health Commissioners
Director of Health representative
ODNR Soil Scientist
Association of Ohio Health Commissioners
Professional Engineer
Ohio Townships Association
Public Representative
Manufacturer representative

Absent:

Dan Michael
Mark Fehring, Fehring Services

Designer
Installer/Service Provider

Vacant:

Academic
Ohio EPA Engineer
Manufacturer Representative

Guests:

Garrett Jensen – Norweco Inc.
Tim Peters – StreamKey
Chris Mandich, Jet Inc.
Shelly Wybensinger, Jet Inc.
Chris Hall
Joel Helms

Other ODH participants: Dusty Gurney, Andy Thomas, and Rachel Townsend

Welcome and Agenda review

The meeting was called to order by Dan Lark. Introductions were made by all in attendance. The meeting agenda was reviewed. No changes to the agenda were requested.

Approval of August 11, 2015 meeting minutes

The committee reviewed minutes from the August meeting. Changes were requested to clarify the status of the Presby approval under Sewage Program Updates. Ray Saporito made a motion to approve the corrected August 11, 2015 meeting minutes. Chris Schraff seconded the motion. Committee members present voted to approve the meeting minutes.

Sewage Treatment Systems Technical Advisory Committee

MEETING MINUTES

Anua – Colin Bishop

- 1. Modification request for the Type A Puraflo Peat Fiber Bio Filter with pad dispersal**
- 2. Modification request for the Type B Puraflo Peat Bio Filter with Mounded Pad Dispersal**

Mr. Bishop was conferenced in via telephone. He gave a brief summary of Anua's request for modification of the Puraflo approval for both the Type A and Type B Peat Fiber Bio Filter systems. Anua is requesting that the approvals be modified to remove the six inch in situ soil requirement for seasonal water and replace with language that stipulates that the Type A Puraflo Peat Fiber Biofilter with Pad Dispersal and Type B Puraflo Peat Fiber Biofilter with Mounded Pad Dispersal complies with paragraph (H) of rule 3701-29-15 of the Ohio Administrative Code. Puraflo meets the 1,000 fecal coliform cfu/100mL treatment standard.

During discussion of the modification request, Mr. Saporito asked why six inch VSD and unsaturated in situ soil had been required in previous approvals if it is not needed. Mr. Bishop indicated that the initial approval of the products did not include the minimum six inches of unsaturated in situ soil. The six inch requirement was added in 2011 when the approval was last modified. It was added at that time based on conversation with ODH program staff to align with the direction of Rule Advisory Committee in regards to vertical separation distance and in situ soil requirements.

Also during the discussion, TAC members requested that Anua submit a revised design and installation manual to reflect the changes made to comply with paragraph (H) of rule 3701-29-15 of the Ohio Administrative Code.

Ray Saporito made a motion to accept these modifications to comply with the requirements of paragraph (H) of the Ohio Administrative Code, pending a revised manual indicating the changes. Perry Brock seconded motion. Committee members present voted to approve this motion.

Joel Helms – Public

Request for approval for Wetland Treatment Systems in Ohio, establish design and operational parameters.

Mr. Helms distributed a revised request for development of a special device approval (SDA) for wetlands sewage treatment systems and discussed his proposal. He is seeking a statewide approval for use of wetlands sewage treatment systems and provided some background on the history and concepts for this type of wastewater treatment.

Mr. Lark stated that data would be needed to support the request. The proposal that was submitted does not provide data on treatment performance. Mr. Helms responded that local data is lacking and does not provide sufficient information to represent the performance of this technology.

Mr. Schraff asked if the wetlands are proposed to be discharging or non-discharging systems. Mr. Helms indicated they are non-discharging systems, typically consisting of two "bays." The first bay is lined, but the second is not lined to allow for dispersal into the soil. Mr. Schraff indicated that since no design and no data has been presented to TAC, it is difficult for him to consider the system for approval.

Ms. Fugitt stated that seasonal conditions in Ohio have historically prevented these types of systems from working well in Ohio, which explains why the local data is lacking, and very few systems have been installed in Ohio.

Mr. Lark reiterated that not enough data has been submitted to consider the request for approval. He is willing to discuss with Mr. Helms outside of the meeting to provide a list of what is needed to move forward with a request.

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

Discussion of Special Device Approval for alternative use of engineered drainage

Rebecca Fugitt briefly discussed the draft special device approval (SDA) for use of compact drain spacing for engineered drainage systems, as modeled in the report completed by Dr. Brown and Vinayak Shedekar of Ohio State University. Sewage program staff had developed diagrams to better illustrate the spacing requirements of previous (1977) rules, the new 2015 sewage rules, and the compact drain spacing utilized in the OSU models. TAC discussed the difference drain spacing scenarios and the merits of each. Program staff will continue to work on the SDA and bring back to TAC next month.

TAC Appointments:

Rebecca Fugitt indicated she has had some discussion with Jet, Inc. to gauge their interest in identifying a replacement for Trent Lydic's position on TAC. She has had some conversation with previous TAC member Dr. Tumeo regarding another matter and he suggested she reach out to Dr. Cutright at University of Akron as a candidate for the academic position on the TAC. Rebecca also stated she has not heard anything more about vacancy for the Ohio EPA engineer position on TAC.

Sewage Program Updates

- Rebecca updated the Committee on the Presby approval and revocation. The hearing is scheduled for early October.
- Sewage Appeals Board—No action at that level yet

Next Meeting

The next TAC meeting will be held on October 13, 2015. The location will be at ODNR.

Adjourn

Motion to adjourn was made by Perry Brock and seconded by Ray Saporito. Motion carried and meeting adjourned.

Approved on 11/10/2015

as signified by:

Dan Lark

Rebecca Fugitt

Dan Lark, TAC Chairperson

Rebecca Fugitt, Secretary

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

Date: Tuesday, November 10, 2015
Time: 10:00 a.m.
Location: Ohio Department of Natural Resources, 2040 Morse Road, Columbus

TAC Members in Attendance:

OEHA Registered Sanitarian & Chair: Dan Lark, Lake County General Health District
ODH Director of Health Representative & TAC Secretary (retiring): Rebecca Fugitt
ODH Director of Health Representative & TAC Secretary (new): Rachel Townsend
ODHN Soil Scientist: Matt Deaton
AOCH Health Commissioner: Charles Patterson, Clark County Combined Health District
Professional Engineer: Walt Sandefur, Sandefur Consulting
Ohio Townships Association: Perry Brock
Public Representative: Christopher Schraff, Porter Wright
Installer: Mark Fehring, Fehring Services

Absent:

Designer: Dan Michael
Health Commissioner: Raymond Saporito, Ashtabula County Health Department (excused)

Vacant:

Academic
OEPA DSW Engineer
Manufacturer Representative
Manufacturer Representative

Guests:

Calvin Locker—Ecological Tanks
Chris Mandich and Shelly Wybensiger—Jet Inc.
David Lentz, Dick Bachelder and Jessica Kautz—Infiltrator
Garrett Jensen—Norweco
Aaron Yonts-Hoot Systems
Chris Hall—MSDGC
Yaz Ashrawi—Frost Brown Todd

Other ODH participants

Dusty Gurney
Steve Schmidt
Maggie Delfino

Welcome and Agenda Review:

The meeting was called to order by Dan Lark. Roll call was taken. The meeting agenda was reviewed. No changes to the agenda were requested.

Approval of September 8, 2015, meeting minutes:

Charles Patterson made a motion to approve the minutes. Christopher Schraff seconded the motion. Committee members present voted to approve the meeting minutes.

Ecological Tanks—Calvin Locker

Mr. Locker submitted the following application for modification of the current approval by ODH for the Aqua Safe advanced treatment system as a proprietary pretreatment component (NPDES approval).

This current NPDES approval includes the following treatment train:

Aqua Safe (Models AS500, AS500L, AS500-C, AS500L-C, AS600, AS600L, AS600-C, AS600L-C, AS750, AS750-C, AS1000, AS1000-C and AS1500) + Disinfectant UV + Re-aeration + Pump Lock-out or Telemetry).

In submitting this application, Ecological Tanks is requesting the modification approval of the Aqua Safe series to meet the Fecal Coliform requirements with the use of the Salcor UV as the disinfection unit (instead of the Disinfectant Unit) and for the removal of the re-aeration basin for restricted and unrestricted spray irrigation Also a modification was submitted to use the Control Panel 209 for the drip distribution assurance package.

Walt Sandefur had several questions concerning the sampling results He mentioned modifying the instructions on the web to meet rules. Ecological Tanks will needs to forward their spread sheet so the committee could review how the standard deviation and geometric mean was calculated.

Matt Deaton and Mark Fehring also had questions about the modifications request meeting the standards applied for. Chris Schraff stated that we can't hold this one up with the present calculations. Rebecca Fugitt stated that the calculations presented meets the standards outlined in the directions.

Committee discussed that ODH may need to find someone to help with the math used in coming up with the proper calculations.

There was some discussion concerning modifying instructions to make sure calculations are correct.

Chris Schraff stated that there needs to be some resolution made to the calculations that are used, but in the meantime Mr. Locker's proposal used the calculations as outlined in the application.

Rebecca Fugitt asked Mr. Locker to send the method/formula used by Mr. Locker so that ODH can compare to the TAC Standards and Guidelines located on the ODH website.

Chris Schraff made a motion to accept these modifications. Mark Fehring seconded the motion. Committee members present voted to approve this motion. Motion carried with a roll call vote as follows

Perry	Yes	Charlie	No
Walt	No	Mark F	Yes
Chris	Yes	Dan	No
Matt	Yes		

Matt Deaton made a motion to modify the original motion. The modification approval now includes that a pretreatment tank is need in the spray irrigation package. Mark Fehring seconded the motion. Committee members present voted to approve this motion with a roll call vote

Perry	Yes	Charlie	Yes	Matt--	Yes
Walt	Abstain		Mark F	Yes	
Chris	Yes	Dan	Yes		

Infiltrator ATL—Dick Bachelder

- Modification request to allow for the CBOD₅/TSS sizing reduction in a trench configuration

Mr. Bachelder discussed Infiltrator's application for use of the ATL System as a CBOD₅/TSS STS in several trench configurations.

There was much discussion concerning whether the requested modification met the current rules. Comparisons to Eljen's product was made. Walt Sandefur mentioned pressure distribution, resting and gravity distribution. Rebecca Fugitt stated that examples of both gravity and pressure distribution designed are needed. Also mentioned were the different cover heights—4 feet vs 18 inches. Rebecca Fugitt stated that TAC would need to see revised examples.

Infiltrator also agreed to make several minor revisions to the draft edition of the product manual that was submitted with the application, in order to ensure that the system will be designed and installed in full compliance with OAC Chapter 3701-29.

Walt has a few points he wanted clarified in the design manual and the committee went through them one by one.

Christopher Schraff motioned to approve the 2 foot/3 foot design with corrections and to table the 4 foot/5 foot design. Charles Patterson seconded the motion. Committee members present did a roll call vote to approve this motion.

The vote to recommend approval included an agreement by Infiltrator to make several changes to its design manual and it included the following:

- rescind the request to allow a 12-inch depth credit when used with drip (timed dose) distribution, as such a design is simply not feasible with the ATL System; and
- rescind the request to allow a 6-inch depth credit when used with pump-to-gravity distribution, because this is not in compliance with the regulations.

- Make the required changes in the manual

Roll Call vote was made and

Perry	Yes	Charlie	Yes
Walt	Yes	Mark F	Yes
Chris	Yes	Dan	Yes
Matt	Yes		

Discussion of special device approval for alternative use of engineered drainage— Ohio Department of Health—Rebecca Fugitt

The special device approval of the use of Drain Mod is needed due to spacing done in the modeling does not accurately reflect the spacing requirements in OAC 3701-29-16 (D). This special device approval would allow counties to utilize this modeling without having to use a variance. Some counties are resistant to granting variances for this spacing.

The committee noticed some typos and wanted clarification on the wording in (A) (2).

Charles Patterson motioned to approve the special device approval with changes. Mark Fehring seconded the motion. Committee members present voted to approve this motion.

TAC Appointments updates—Rebecca Fugitt

- Chris Mandich from Jet Inc. submitted his application to fill the open position for Manufacturer position due to the death of Trent Lydic.
- Zak Sherman is reapplying for the other manufactures position since his appointment expired in May 2015.
- Matt Deaton’s term expires 12/31/15. He will be transferring from ODNR to Agriculture beginning next year. He will discuss his continuing to be on the committee with his new supervisor.
- Ohio EPA Engineer position is still open, awaiting to hear back from the Governor’s Office on the appointment of the Ohio EPA Engineer’s position previously held by Mark Stump’s. It had expired 12/31/13.

Sewage Program updates to the TAC—Rachel Townsend

- Rebecca introduced Rachel Townsend as the new program manager for the water and sewage program and introduced Maggie Delfino as support staff for ODH TAC
- Training—ODH with some manufactures added a second day to the CIDWT Operation and Maintenance Service Provider Program
- Director’s actions regarding existing approved systems—Update given
- Director’s actions related to TAC recommendations
- Rules implementation update Staff doing presentations at installer meetings in Nov and Dec

- Sewage appeals boards—No update

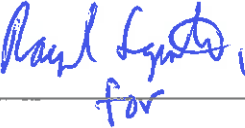
Next meeting

The next TAC meeting will be on December 8, 2015. The location will be at ODNR.

Adjourn

Motion to adjourn was made by Matt Deaton and seconded by Christopher Schraff. Motion carried and the meeting was adjourned.

Approved on December 15, 2015 as signified by:

 *Dan Lark, Vice Chairperson*
for

Dan Lark, TAC Chairperson



Rebecca Fugitt, Secretary

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

Date: Tuesday, December 15, 2015
Time: 10:00 a.m.
Location: Ohio Department of Health, 246 N. High St., Columbus, Ohio

TAC Members in Attendance:

ODH Director of Health Representative & TAC Secretary (retiring): Rebecca Fugitt
ODH Director of Health Representative & TAC Secretary (new): Rachel Townsend
ODNR Soil Scientist: Matt Deaton
Professional Engineer: Walt Sandefur, Sandefur Consulting
Health Commissioner: Raymond Saporito, Ashtabula County Health Department
Ohio Townships Association: Perry Brock
Installer: Mark Fehring, Fehring Services
Designer: Dan Michael

Absent:

OEHA Registered Sanitarian & Chair: Dan Lark, Lake County General Health District
Public Representative: Christopher Schraff, Porter Wright
AOCH Health Commissioner: Charles Patterson, Clark County Combined Health District

Vacant:

Academic
OEPA DSW Engineer
Manufacturer Representative

Guests:

Chris Mandich—Jet Inc.
Dick Bachelder and Jessica Kautz—Infiltrator
Zak Sherman--Infiltrator
Garrett Jenson—Norweco
Mike & Natasha Smallwood—Smallwood Septic Services
Mike Felton—Streamkey
Jim King—Eljen
Mark Stump—Ohio EPA
Christine Limbert--AGO
Yaz Ashrawi—Frost Brown Todd

Other ODH participants

Mahjabeen Qadir, Senior Legal Counsel
Dusty Gurney
Steve Schmidt
Maggie Delfino

Welcome and Agenda Review:

The meeting was called to order by Raymond Saporito, Co-chair. Roll call was taken. The meeting agenda was reviewed. Changes to the agenda included Item #3 to read, "Approval of November 10, 2015, meeting minutes."

Approval of November 10, 2015, meeting minutes:

Raymond Saporito made a motion to approve the minutes. Walt Sandefur requested removal of the word "Excel" from the last line on page 2 describing the formula. It is not an 'Excel' formula. Also, he recommended removal of the word, "spreadsheet" from the fourth paragraph and modify it to read "the standards located on the ODH website compared to the TAC standards and criteria". Mark Fehring motioned to approve the minutes with the changes. Perry Brock seconded the motion. Committee members present voted to approve the meeting minutes with the changes.

Mahjabeen Qadir, Senior Legal Counsel, stated that the application and/or amendment that is being presented today should be based on the current laws and rules as they stand today.

Infiltrator ATL—Dick Bachelder

Subject: Revisions to the Design Manual for the Modification request to allow for the CBOD₅/TSS sizing reduction in a trench configuration initially presented at the November 2015 TAC meeting.

Mr. Bachelder discussed various modifications to the manual (see attachment dated December 4, 2015, titled, "ATL System Design and Installation manual Proposed Revisions" at the end of these minutes.)

Issue 1: Rescind request for 12" depth credit with use of drip.

- Page 3: remove reference to "drip"
- Page 24: cross section common
- Page 24: remove "pump to gravity" verbiage and add "time" to pressure distribution on a global basis

Rebecca Fugitt commented that at the top of page 2 where it mentions 6" depth, it should read, "6" depth beneath the conduit" for clarification.

- Ray Saporito agreed with Rebecca Fugitt.

Rebecca Fugitt also recommended at the bottom of page 2 changing "iii" to capital "III" as follows: OAC 3701-29 Appendix A.III(A)(1).

On page 3, under "Trench Specifications" heading, Walt Sandefur recommended correcting reference OAC 3701-29-15 (by adding "-15" to the end).

Walt Sandefur recommended on page 5 under "Trench Configurations" to remove the "Mound Installations" example. He stated that mound installation is different than trench installation.

- Dick Bachelder stated that this configuration will be removed.

Issue 9: Corrections to installation instructions.

- Page 23: Item #4, remove the word, “spoil” and replace with “soil”.

Rebecca Fugitt, Dan Michael, and Walt Sandefur commented on slope specifications. Dick Bachelder stated that it varies by state

Discussion was made as to what the TAC was recommending today. Two (2) items were being discussed and voted on:

- 1) Approval, disapproval, or no action the 4’ and 5’ trenches in the application,
- 2) Approval, disapproval, or no action the Infiltrator Design and Installation Manual.

Ray Saporito called for a motion for approval, disapproval, or tabling the 4’ and 5’ trenches design in the application. Walt Sandefur motioned to disapprove the 4’ and 5’ trenches design contained in the application. Dan Michael seconded the motion. Committee members present voted to approve this motion. Motion carried with a roll call vote as follows:

Matt Deaton	Yes
Mark Fehring	Yes
Dan Michael	Yes
Walt Sandefur	Yes
Ray Saporito	Yes
Perry Brock	Yes
Rebecca Fugitt	Yes.

Ray Saporito called for a motion for approval the Infiltrator Design and Installation Manual with the deletion of references to 4’ and 5’ trenches, as well as the above-mentioned changes listed on page 2 of these meeting minutes. Mark Fehring motioned to approve the manual with the revisions. Perry Brock seconded the motion. Committee members present voted to approve this motion. Motion carried with a roll call vote as follows:

Matt Deaton	Yes
Mark Fehring	Yes
Dan Michael	Yes
Walt Sandefur	Yes
Ray Saporito	Yes
Perry Brock	Yes
Rebecca Fugitt	Yes.

Walt Sandefur questioned the TAC needing to review the revised manual before it is put out on ODH website. Everyone agreed that the TAC would like to see the revisions after they have been made by Infiltrator and before they are put out on the ODH website.

- Rebecca Fugitt will mail out the revised manual to each TAC members before it is placed on ODH website.

There was discussion concerning problems vendors were having with Hamilton County not approving installation of sewage treatment systems.

Mahjabeen Qadir requested examples to be sent to her through Rachel Townsend so that ODH can review and possibly address with Hamilton County.

Discussion of tertiary treatment products criteria and evaluation standards:

Rebecca Fugitt stated that standards relating to Rule 3701-29-13 (R) need to be made. She referenced the Ohio EPA Sampling Survey done in 2010 of products, which showed that many approved products don't meet all the effluent standards outlined in the Ohio EPA NPDES General Permit for household sewage treatment systems. She stated we need to have some parameters set which to evaluate for tertiary treatment devices. There are companies interested in approaching TAC about these devices but no standards have been set thus the reason for bringing this up with the TAC.

Mark Fehring commented that we probably need some manufacturer's products to look at before coming up with standards and Walt Sandefur stated that field samples are needed before coming up with standards could be looked at

Mark Stump stated we should start with definition of what tertiary treatment is.

Ray Saporito stated that there appears to be two (2) issues that need to be looked at: 1) treatment criteria and 2) manufacturers.

Discussion on Previous Product approvals and NPDES call for samples

Mark Stump stated that OEPA will make a call for all discharging sample results that fall under the general permit here soon, once an intern has been hired and brought in to help with this request. The last survey was done in 2010 and OEPA intern to help with gathering and reporting the results that will come in.

Rebecca Fugitt stated that performance standards are needed. She and ODH will begin to put something together for TAC to review.

Rebecca Fugitt stated that previous product approvals will need to reviewed every five (5) years and that we need to begin looking at them

TAC Appointments Updates:

- Chris Mandich from Jet Inc. submitted his application to fill the open position for Manufacturer position due to the death of Trent Lydic.
- Zak Sherman reapplied for the other manufactures position since his appointment expired in May 2015.

- Matt Deaton's term expires 12/31/15. He will be transferring from ODNR to Ohio Department of Agriculture beginning next year. He will discuss his continuing to be on the committee with his new supervisor.
- Ohio EPA Engineer position is still open, waiting to hear back from the Governor's Office on the appointment of the Ohio EPA Engineer's position previously held by Mark Stump's. It had expired 12/31/13.

Sewage Program updates to the TAC:

- Director's actions regarding existing approved systems
- Director's actions related to TAC recommendations
- Sewage appeals boards—No update

Rachel Townsend mentioned the deadline of 12/31/15 for approval of septic tanks. Zack Sherman requested the possibility of getting a 90 day extension for submission. Mahjabeen Qadir stated that she would need to read the rule to see if that was even possible—it depended on the language of the rule.

Upcoming applications submitted to TAC, ODH, anticipates receipt of four (4) product applications soon. Depending on when complete application packages are received, there may or may not be a meeting in January.


Next meeting:

The next TAC meeting will be on January 12, 2016. The location will be at ODH.

Adjourn:

Motion to adjourn was made by Mark Fehring and seconded by Perry Brock. Motion carried and the meeting was adjourned.

Approved on 3/8/16 as signified by:



Ray Saporito, TAC Co-Chairperson



Rebecca Fugitt, Secretary

Attachment

**ATL System
Design and Installation Manual
Proposed Revisions**

December 4, 2015

	Issue	Proposed Remedy
1	Rescind request for 12" depth credit with use of drip	<p>Page 3, section titled "<i>Separation Distances and Trench Spacing</i>":</p> <ol style="list-style-type: none">1. Section has been broken up into three separate sections, titled "<i>Separation Distances</i>", "<i>Pressure Distribution</i>", and "<i>Trench Specifications</i>"; and2. In section titled "<i>Pressure Distribution</i>", text referencing 12 inch depth credit has been deleted in its entirety. <p>Page 24 (previously page 18):</p> <ol style="list-style-type: none">1. The words "<i>and Timed Micro-Dosing</i>" have been deleted from the subsection title "<i>Pressure and Timed Micro-Dosing Distribution</i>", to read: "<i>Pressure Distribution</i>"; and2. The entire final sentence in this subsection, which read "<i>A 12 inch depth credit is allowed in applications where the ATL System is installed utilizing timed micro dosing (OAC 3701-29-15(L)(3)).</i>" has been deleted.
2	Rescind request for 6" depth credit for use in pump-to-gravity distribution applications	<p>Page 3, section titled "<i>Separation Distances and Trench Spacing</i>":</p> <ol style="list-style-type: none">1. Section has been broken up into three separate sections, titled "<i>Separation Distances</i>", "<i>Pressure Distribution</i>", and "<i>Trench Specifications</i>"; and2. In section titled "<i>Pressure Distribution</i>", text referencing the 6 inch depth credit with use in pump-to-gravity distribution has been deleted in its entirety.
3	6" depth credit text needs to include language which requires compliance with the Rule	<p>Page 3, section titled "<i>Separation Distances and Trench Spacing</i>":</p> <ol style="list-style-type: none">1. Section has been broken up into three separate sections, titled "<i>Separation Distances</i>", "<i>Pressure Distribution</i>", and "<i>Trench Specifications</i>"; and2. In section titled "<i>Pressure Distribution</i>", text has been added which reads: "<i>All other aspects of the ATL System design shall comply with OAC 3701-29.</i>"

4	Resting area requirement	<p>Page 2. Entirely new section titled <i>"System Sizing"</i> has been added. New text addresses: (1) System sized as a CBOD5/TSS STS; and (2) resting requirements.</p> <p>Pages 6-20. System design process has been modified to include requirement for, and design of, resting area. Specifically, a new <i>"Step 3"</i> has been added to the design process (see Pages 6-7, 10-11, 15 & 17 in <i>"Design Example 1"</i>; and Page 19 in <i>"Design Example 2"</i>).</p>
5	Need to state that number of trenches are based upon site conditions	<p>Page 3, in completely new section titled <i>"Trench Specifications"</i>, first sentence reads: <i>"The number of ATL System trenches to be designed and installed shall be based upon site conditions."</i></p>
6	Maximum trench length of 150 feet	<p>Page 3, in completely new section titled <i>"Trench Specifications"</i>, third paragraph reads: <i>"ATL System trench lengths exceeding 150 feet, as a result of lineal loading rate calculations, are permissible in accordance with OAC 3701-29 Appendix A.III.(B). The manifold shall be placed in the center for trenches longer than 150 feet."</i></p> <p>Page 14 (previously page 12) system design example has been revised to reflect modified design process.</p> <p>Page 17 (previously page 14), Step 6 (previously Step 5) now includes the following text: <i>"All trenches longer than 150 ft must be divided and center fed. Therefore, each of the 5 design trenches in this system must be divided in to two 100-ft-long trenches, and center fed on the contour."</i></p>
7	Shallow and mound applications	<p>Page 5. Title of drawings on this page have been changed from <i>"Shallow Trench Configurations"</i> to <i>"Trench Configurations"</i>; and cross -section drawing of a mound system has been added.</p>
8	Pressure distribution design	<p>Pages 18-20 include a new <i>"Design Example 2"</i>, which incorporates the use of pressure distribution.</p> <p>Page 24 includes a cross-section drawing of the ATL System conduit with small-diameter pressure pipe.</p>
9	Corrections to installation instructions	<p>Page 23 (previously page 17) in section titled <i>"Excavating and Preparing the Site"</i>:</p> <ol style="list-style-type: none"> 1. In step #3, text which read <i>"or scarify the ground"</i> has been removed;

2. In step #4:

- a. Text which read *"Rake the trench or bed bottom and sides (when applicable) if smearing has occurred during excavation."* has been removed; and
- b. In subsection titled *"NOTE"*, (1) the text which read *"Smearing does not occur in sandy soils, so raking is not necessary."* has been removed; and (2) a new sentence which reads *"Spoil moisture conditions shall be evaluated in accordance with OAC 3701-29-15(P)(2)."* has been added.