

Sewage Treatment Systems Technical Advisory Committee

MEETING MINUTES

Date: Tuesday – February 8, 2011

Time: 10:00 AM to 2:00PM

Location: Ohio Department of Natural Resources, 2045 Morse Road, Columbus

TAC Members in Attendance:

OEPA DSW Engineer & TAC Chair – Mark Stump

ODH Director of Health Representative & TAC Secretary – Rebecca Fugitt

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

AOHC Health Commissioner – Raymond Saporito, Ashtabula County Health Department

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

Manufacturer Representative – Kevin Jehl, ADS, Inc.

Installer/ Service Provider – Mark Fehring, Fehring Services

Academic - Dr. Mark Tumeo PhD, Cleveland State University

Registered Engineer – Walt Sandefur, Sandefur Consulting, Inc.

Designer – Joe Keiser, Streamkey, Inc.

Absent:

ODNR Soil Scientist -- Matt Deaton – excused

Manufacturer Representative - Scott Hetrick, Norweco Inc – excused

Vacant:

Public –

Ohio Townships Association –

Guests:

Ryan Fickes with Delta Environmental, Trent Lydic with Jet, Inc., James Conley with Hydro-Action Inc., Rene and James Dye with Wastewater Solutions Inc., Nate McConoughey and Colin Johnson with the Cuyahoga County Health District, Bill Wehrmann with Winelco Inc.

Conference Call:

Chris Griffith with the Hamilton County General Health District, Frank Migliozi with the Trumbull County Health Department, Wesley Vins with the Columbiana County General Health District, Robert Wildey with the Clermont County Health District, and DuWayne Porter with the Portage County Combined General Health District

Other ODH participants: Nathan Johnson

Welcome and Agenda review:

Mark Stump asked that committee members provide a description of their professional experience with introductions since there were new members. Introductions were made by all in attendance. Mark Stump reviewed the meeting agenda and asked for requests to modify the agenda. There were no requests to modify the agenda. Mark Stump.

Meeting Minutes:

TAC members reviewed the November 9, 2010 meeting minutes.

A motion was made by Charles Patterson and seconded by Mark Tumeo for approval of the November 9, 2010 meeting minutes as submitted. TAC members present voted in favor of the motion.

New TAC appointments and reappointments

Mark Stump recognized the new committee members. Rebecca Fugitt reviewed the open committee positions and which members were awaiting reappointment.

Hydroaction Inc. request for modification to previous approvals of the HydroAction aeration treatment unit to include concrete models

James Conley, HydroAction, Inc.

James Conley reviewed the manufacturer's requests for modification of previous approvals of the HydroAction pretreatment component which included:

- Use of pretreatment tank on AP and CLP NPDES models
- Use of 100-300 gallon re-air/pump tanks on AP and CLP NPDES models
- Use of AP and CLP all models (500-1500 gallon) for one foot soil depth credit without UV
- Use of the UV "Disinfector" unit inside the AP series ATU

Discussion ensued concerning the use of pretreatment tanks in front of the aeration treatment unit. Committee members discussed the importance of reviewing performance information collected from the treatment train that is reviewed. Much discussion concerning the provided performance information followed.

Mark Tumeo made a motion to recommend approval of the modification for use of a pretreatment tank on AP and CLP NPDES models. Ray Saporito seconded the motion. Committee members voted in favor of the motion.

Discussion ensued concerning the use of 100-300 re-air/pump tanks on AP and CLP NPDES models. Discussion concerning the supplied performance information and the manufacturers previously approved treatment train followed.

Charles Patterson made a motion to recommend approval of the modification to allow the use of 100-300 gallon re-air/pump tanks on AP and CLP NPDES models. Mark Fehring seconded the motion. Committee members voted in favor of the motion.

Discussion ensued concerning the use of AP and CLP all models (500-1500 gallon) for one foot soil depth credit without UV and the provided performance information. Mark Tumeo calculated the confidence interval of the provided performance information.

Mark Tumeo made a motion to recommend approval of the modification to the use of AP and CLP all models (500-1500 gallon) for one foot soil depth credit without UV. Joe Kieser seconded the motion. Committee members voted in favor of the motion.

Discussion ensued concerning the use of the UV "Disinfector" unit inside the AP series ATU.

Mark Stump made a motion to recommend approval of the modification for use of the UV "Disinfector" unit inside the AP series ATU. Charlie Patterson seconded the motion. Committee members voted in favor of the motion.

Discussion on NPDES sampling data analysis

Rebecca Fugitt explained that local health department representatives were invited to participate in the discussion prior to the meeting by email. Mark Stump explained that the committee HAS been involved in discussions concerning how the state can achieve two goals concerning the NPDES program: obtain better system compliance to the limits outlined in the OEPA General Permits and obtain better sample results (both quantity and quality of results).

Discussion ensued concerning the abilities of individuals collecting samples in the field and possibilities for training these individuals.

Further discussion involved service contracts and the ability to add the costs and responsibilities of sampling to these required contracts. Discussion followed concerning successful programs currently utilized by several local districts around the state. Some local health districts collect the fees for sampling and perform these services themselves to ensure their proper collection. Discussion followed rather it would be necessary for local health departments to collect samples from all of the systems within their jurisdiction or if a representative percentage of the systems could be sampled. Discussion followed concerning the cost of performing these activities and how it would affect the cost of permits in the future. Local health department representatives stated that some districts are already utilizing a similar approach.

Discussion followed concerning the annual collection of samples by the manufacturer. Discussion followed rather a representative percentage of the manufacturers systems could be sampled. Discussion followed concerning the cost of performing these activities and how it would affect the cost of these systems in the future. Manufacturers stated that some states utilize a similar approach.

The committee agreed to continue discussions on the subject while OEPA, ODH, and local health departments prepare for MOU and General Permit renewal.

Pending Applications:

Rebecca Fugitt informed TAC that the department has been in contact with Planet Care, Inc. concerning additional approvals for the Eco Pure Peat Moss Biofilter.

Sewage Program Updates:

Rebecca Fugitt updated the committee concerning the activities of the STS Rules Advisory Committee and the local appeals boards.

The next TAC meeting is March 8, 2011 and will be held at ODNR.

The meeting was adjourned.

Approved on 6-14-2011 as signified by:

(Not appointed to date) Rebecca Fugitt

Mark Stump, TAC Chairperson

Rebecca Fugitt, Secretary

Sewage Treatment Systems Technical Advisory Committee

MEETING MINUTES

Date: Tuesday – June 14, 2011

Time: 10:00 AM to 2:00PM

Location: Ohio Department of Natural Resources, 2045 Morse Road, Columbus

TAC Members in Attendance:

ODH Director of Health Representative & TAC Secretary – Rebecca Fugitt

ODNR Soil Scientist – Matt Deaton

AOHC Health Commissioner – Raymond Saporito, Ashtabula County Health Department

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

Manufacturer Representative – Kevin Jehl, ADS, Inc.

Manufacturer Representative - Scott Hetrick, Norweco Inc.

Installer/ Service Provider – Mark Fehring, Fehring Services

Designer – Joe Keiser, Streamkey, Inc.

Absent:

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

Registered Engineer – Walt Sandefur, Sandefur Consulting, Inc.- excused

Vacant:

Public –

Ohio Townships Association -

OEPA DSW Engineer –

Academic -

Guests:

Mark Stump with the OEPA, Ben Berteau with Infiltrator Systems, Nick Noble and Stan Shepherd with Orenco, Chris Mandich with Jet Inc., Jens Sautner and Thomas Dapp with WRS-USALLL, Douglas Everson with PTI, Kevin Sherman with OJMC, Karen Mancini with the Ohio State University, and Ryan Fickes with Delta Environmental

Conference Call:

Colin Bishop with Bord na Mona

Other ODH participants: Nathan Johnson and Dusten Gurney

Welcome and Agenda review

Rebecca Fugitt explained that she would chair the meeting in the absence of the committee chair and vice chair. Introductions were made by all in attendance. Rebecca reviewed the meeting agenda and asked for requests to modify the agenda. There were no requests to modify the agenda.

Meeting Minutes

TAC members reviewed the February 8, 2011 meeting minutes. Scott Hetrick noted that he was listed as a TAC member in attendance, but he was not at the February TAC meeting.

New TAC appointments and reappointments

Rebecca Fugitt reviewed the open committee positions and which members were awaiting reappointment.

Spray Irrigation Study Pre-proposal

Dr. Karen Mancl, OSU

Rebecca Fugitt explained the STS Innovation Fund. ORC 3718.06 of the Revised Code created the fund and requires the director to deposit twenty five percent of the state portion of permit fees into the fund for installation and evaluation of sewage treatment system new technology pilot projects through grants or other agreements. The statute requires the director to consult with the sewage treatment system technical advisory committee in the selection of pilot projects.

Dr. Mancl explained that OSU has been researching spray irrigation of treated wastewater for some time. The university has researched sprays effect on plants, the effect of snow on the process, and the reliability of equipment used in the system. The OEPA has identified the possible existence of runoff from the system as an additional potential problem with the technology. Runoff from the application area would be considered an elicit discharge if the system was not installed under the coverage of a NPDES permit.

Dr. Mancl explained the proposed project and requested input from the committee. Discussion ensued concerning specifics of the project. Dr. Mancl will finalize the request and return to a future committee meeting to request financial assistance for the project using monies from the STS Innovation Fund.

Ecological Tanks Inc. request for modification to previous approvals of the AquaSafe Aeration Treatment Unit to include the low profile models AS500L, AS600L, AS500L-C, and AS600L-C

Rebecca Fugitt explained that she had spoken with Calvin Locker concerning this request but Mr. Locker was not able to be in attendance. Mrs. Fugitt reviewed the material that was provided by the manufacturer and forwarded to committee members prior to the meeting. Discussion ensued over the NSF approval of the AquaSafe unit. NSF has reviewed the low profile models and found that they were equivalent to the tested model.

Scott Hetrick made a motion to recommend approval of the modification to include models AS500L, AS600L, AS500L-C, and AS600L-C in previous approvals of the AquaSafe unit. Ray Saporito seconded the motion. Committee members voted in favor of the motion.

Norweco Inc. request for modification to previous approvals of the Norweco TNT unit, the Norweco AT-1500 UV unit, reaeration, and pump lock out or telemetry for meeting the effluent limits outlined in the OEPA NPDES HSTS General Permits to include the option to utilize the Norweco Model A-20 Air Pump, relocate the post aeration from the Singulair Bio-Kinetic filter to the Norweco AT-1500 UV disinfection unit, and eliminate the air stone

Scott Hetrick, Norweco, Inc.

Scott Hetrick reviewed the performance information supporting the requested modification including fecal coliform, E. coli, and dissolved oxygen measurements from the treatment train. A short discussion ensued concerning the performance information and the design.

Mark Fehring made a motion to recommend approval of the modification previous approvals of the Norweco TNT unit, the Norweco AT-1500 UV unit, reaeration, and pump lock out or telemetry for meeting the effluent limits outlined in the OEPA NPDES HSTS General Permits to include the option to utilize the Norweco Model A-20 Air Pump, relocate the post aeration from the Singulair Bio-Kinetic filter to the Norweco AT-1500 UV disinfection unit, and eliminate the air stone. Ray Saporito seconded the motion. Committee members voted in favor of the motion with Scott Hetrick abstaining from the vote.

Scott Hetrick explained that he would like to withdraw his request for modification of the burial depth of the Singulair Green tank from a depth of 16 ½ inches to 34 ½ inches until additional information is available to support his request.

Bord na Mona, Inc. request for modification to the in-situ soil requirement for the Puraflow Bottomless Type A Pad Dispersal in Subsurface Applications from 12 inches to 6 inches and modification to the in-situ soil requirement for the Puraflow Type B Mounded Pad Dispersal from 10 inches to 6 inches

Colin Bishop, Bord na Mona

Colin Bishop joined the meeting through conference call. Mr. Bishop reviewed the requested modification.

Dan Lark explained that the OEHA Sewage Technical Advisory Committee expressed concern with the modification. He explained that the mound special device approval requires at least one foot of in situ soil below the sand fill and above any limiting condition except for seasonal perched water. The special device approval allows the local health district to allow less than one foot of in situ soil for seasonal water. ODH should not allow Board Na Mona something less stringent than sand mounds with pressure distribution.

Rebecca Fugitt agreed that the special device approval includes a requirement to maintain at least one foot of in situ soil below the sand fill and above any limiting condition except for perched seasonal high water tables. ODH does not have the authority to adopt separation distances to the perched seasonal water table. Since ODH is not authorized to adopt separation distances to seasonal water, Bord na Mona chose to include these requirements as a minimum. Local separation distances would still apply if they are more stringent than the manufacturer's standards. The manufacturer has expressed concern over installing the approved system at the seasonal water table as is currently allowed in several health districts.

Committee members asked that Bord na Mona work with Rebecca to clarify the language.

Mark Fehring made a motion to recommend approval of the modification to the in-situ soil requirement for the Puraflow Bottomless Type A Pad Dispersal in Subsurface Applications from 12 inches to 6 inches and modification to the in-situ soil requirement for the Puraflow Type B Mounded Pad Dispersal from 10 inches to 6 inches with the understanding that the language would be clarified to address OEHA TAC concerns. Scott Hetrick seconded the motion. Committee members voted in favor of the motion with Dan Lark opposing the motion.

Plastic Tubing Industries request for approval of the Multi-Pipe System for meeting the standards outlined in the Leaching Trench Products Utilizing a Non-Gravel, Fines –Free Distribution System Special Device Approval

Kevin Sherman and Douglas Everson, Plastic Tubing Industries

Kevin Sherman provided an overview of the request and the supporting information that had previously been forwarded to committee members. Discussion ensued concerning the void capacity of the system. Kevin Sherman reviewed the supporting information. Dan Lark noted that the MPS-6 void space was only 15% greater than coarse aggregate and questioned if the system provided sufficient void space. Rebecca Fugitt questioned why the submitted information stated that geotextile fabric was not required to be installed above the product in all situations. Mr. Everson stated that the manufacturer would modify the material to include geotextile fabric in all situations. Ben Berteau raised two questions from the audience. Mr. Berteau questioned the quantity of performance data included in the submittal and the height of the MPS-6. Kevin Jehl questioned the validity of the submitted H-10 test. Mr. Jehl pointed out that the load test was performed utilizing materials that are manufactured by a third party that is no longer producing the Multi-Pipe System.

TAC identified three areas that additional information would be needed to support the manufacturer's request. The committee requested that the manufacturer submit an H-10 Load Test utilizing the materials included in the production of the Multi-Pipe System as it is currently constructed; additional performance information; and information to address concerns over the height of the MPS-6.

Mr. Everson expressed concern over the cost of performing additional tests and studies. Discussion ensued concerning the availability of existing performance information. Mr. Sherman stated that he could locate additional performance information on Ohio systems, performance information on systems operating in Type IV soils (fine soils), and additional performance information from other states including the state of Florida. Discussion ensued over the cost of the H-10 Load Test. Several manufacturers in attendance stated that the cost of the load test was not overly burdensome.

Sewage Program Updates

Rebecca Fugitt updated the committee concerning the activities of the STS Rules Advisory Committee and the local appeals boards. Mrs. Fugitt requested input from the committee concerning the use of the departments SharePoint site for distribution of TAC meeting materials. ODH STS staff had created a site for the committee prior to the meeting. Committee members expressed that the SharePoint site was helpful.

Further discussion on Plastic Tubing Industries' request

Ray Saporito expressed concern with Plastic Tubing Industries status. He pointed out that in the past other manufacturers have left committee meetings to gather additional information as requested by the committee and returned with material that did not satisfy all of the committee's concerns. Mr. Saporito asked that Mrs. Fugitt follow up with the manufacturer to provide guidance concerning the committee's request. Mrs. Fugitt reviewed the request. The committee requested that the manufacturer submit an H-10 Load Test utilizing the materials included in the production of the Multi-Pipe System as it is currently constructed; additional performance information; and information to address concerns over the height of the MPS-6. Mrs. Fugitt requested additional input concerning the request for information to address concerns over the height of the MPS-6. Discussion ensued concerning the MPS-6 product and committee members stated that they did not believe the product met the expectations of the special device approval.

The next TAC meeting is July 12, 2011 and will be held at ODNR.

The meeting was adjourned.

Approved on August 9, 2011 as signified by:



Vacant, TAC Chairperson

Rebecca Fugitt, Secretary

Sewage Treatment Systems Technical Advisory Committee

MEETING MINUTES

Date: Tuesday – August 9, 2011

Time: 10:00 AM to 2:00PM

Location: Ohio Department of Natural Resources, 2045 Morse Road, Columbus

TAC Members in Attendance:

ODH Director of Health Representative & TAC Secretary – Rebecca Fugitt

ODNR Soil Scientist – Matt Deaton

AOHC Health Commissioner – Raymond Saporito, Ashtabula County Health Department

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

Manufacturer Representative - Scott Hetrick, Norweco Inc.

Installer/ Service Provider – Mark Fehring, Fehring Services

Registered Engineer – Walt Sandefur, Sandefur Consulting, Inc

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

Absent:

Manufacturer Representative – Kevin Jehl, ADS, Inc. – excused

Designer – Joe Keiser, Streamkey, Inc. – excused

Vacant:

Public –

Ohio Townships Association -

OEPA DSW Engineer –

Academic -

Guests:

Mark Stump with the OEPA, Chris Mandich with Jet Inc., Karen Mancl with the Ohio State University, and Steve Davis with Hydro-Action Manufacturing, Inc.

Other ODH participants: Nathan Johnson

Welcome and Agenda review

Rebecca Fugitt explained that she would chair the meeting in the absence of the committee chair and vice chair. Introductions were made by all in attendance. Rebecca reviewed the meeting agenda and asked for requests to modify the agenda. There were no requests to modify the agenda.

Meeting Minutes

TAC members reviewed the June 14, 2011 meeting minutes.

A motion was made by Matt Deaton and seconded by Dan Lark for approval of the June 14, 2011 meeting minutes as submitted. TAC members present voted in favor of the motion.

New TAC appointments and reappointments

Rebecca Fugitt reviewed the open committee positions and which members were awaiting reappointment. Discussion ensued concerning whether a majority of the full committee was needed for quorum or if a majority of the appointed membership would constitute a quorum. Rebecca Fugitt explained that the majority of the full committee is needed for quorum.

Norweco Inc. request for modification to previous approvals of the Norweco Singulair Green to modify the maximum burial depth of the tank from 16 ½ inches to 34 ½ inches
Scott Hetrick, Norweco, Inc.

Scott Hetrick reviewed the structural design analysis of the tank supporting the requested modification. A short discussion ensued concerning the performance information and the design. It was noted that Norweco, Inc. would have to submit a new installation checklist for the unit.

Ray Saporito made a motion to recommend approval of the modification previous approvals of the Norweco Singulair Green to modify the maximum burial depth of the tank from 16 ½ inches to 34 ½ inches. Dan Lark seconded the motion. Committee members voted in favor of the motion with Scott Hetrick abstaining from the vote.

Spray Irrigation Study Pre-proposal
Dr. Karen Mancl, OSU

Dr. Mancl explained that she had met with TAC, OEPA, and ODH to get input on the proposed project to research the quantity and quality of runoff from spray irrigation systems in Ohio. A budget worksheet was circulated and discussion concerning the indirect cost allowance of 52.5%. Dr. Mancl explained that the included indirect cost allowance was the Ohio State University's rate. Scott Hetrick informed the committee that the technology has been used in Texas without known occurrence of sickness. Discussion ensued concerning the daily design flow of 180 gallons per day. Dr. Mancl explained that it was expected that most households utilize much less water than the 120 gallons per day peak design flow in Ohio regulations and that the design flow had been discussed with the Ohio EPA. Further discussion concerning the soil type utilized for the project. Dr. Mancl explained that the type of soil is not as important as the application rate and vegetation on the application field.

Scott Hetrick made a motion to recommend funding of the Spray Irrigation Study as outlined in the submitted documents. Matt Deaton seconded the motion. Committee members voted in favor of the motion with Charles Patterson opposing.

2010 TAC Annual Report

The 2010 TAC Annual Report was circulated and discussion ensued. Matt Deaton and Charles Patterson noted changes to be made to the name of their respective employers on page 3 of the report.

Charles Patterson made a motion to approve the 2010 TAC Annual Report with the suggested changes. The motion was seconded by Ray Saporito. Committee members present voted in favor of the motion.

Sewage Program Updates

Rebecca Fugitt informed committee members that she had been contacted by Plastic Tubing Industries' request for approval of the MPS product. The manufacturer withdrew their request for approval until additional information requested by the committee can be submitted.

Rebecca Fugitt updated the committee concerning the activities of the STS Rules Advisory Committee and the Soil Loading Rate Table Workgroup. Mrs. Fugitt invited committee members to join the workgroups conference call and discussion with Dr. Jerry Tyler.

Rebecca Fugitt informed the committee that ODH program staff continue to compile lists of appeals board members and create the STS TAC SharePoint site.

The next TAC meeting is September 13, 2011 and will be held at ODNR.

The meeting was adjourned.

Approved on Oct 11, 2011 as signified by:



Vacant, TAC Chairperson

Rebecca Fugitt, Secretary

Sewage Treatment Systems Technical Advisory Committee

MEETING MINUTES

Date: Tuesday – October 11, 2011

Time: 10:00 AM to 2:00PM

Location: Ohio Department of Natural Resources, 2045 Morse Road, Columbus

TAC Members in Attendance:

ODH Director of Health Representative & TAC Secretary – Rebecca Fugitt

ODNR Soil Scientist -- Matt Deaton

AOHC Health Commissioner –Raymond Saporito, Ashtabula County Health Department

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

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

Manufacturer Representative — Kevin Jehl, ADS, Inc.

Manufacturer Representative - Scott Hetrick, Norweco Inc.

Registered Engineer – Walt Sandefur, Sandefur Consulting

Absent:

Installer/ Service Provider – Mark Fehring, Fehring Services

Designer – Joe Keiser, Streamkey, Inc.

Vacant:

Public –

Ohio Townships Association -

OEPA DSW Engineer –

Academic -

Guests:

Stan Shepherd with Orenco, Chris Mandich with Jet Inc., and Steve Davis with HydroAction, Mark Stump with the OEPA

Other ODH participants: Nathan Johnson

Welcome and Agenda review

Rebecca Fugitt explained that she would chair the meeting in the absence of the committee chair and vice chair. Introductions were made by all in attendance. Rebecca reviewed the meeting agenda and asked for requests to modify the agenda. There were no requests to modify the agenda.

Meeting Minutes

TAC members reviewed the August 9, 2011 meeting minutes. Walt Sandefur noted that the minutes listed Sandefur Consulting as a corporation, but it is not incorporated. Ray Saporito made a motion to approve the August 9, 2011 minutes with the suggested change. The motion was seconded by Dan Lark. Committee members in attendance voted in favor of the motion.

Matt Deaton asked to revisit the Spray Irrigation Study Proposal heard at the meeting. He stated that he had heard concerns with the status of the OARDC site where the study is to take place. Rebecca Fugitt stated that she would follow up with Karen Mancl.

New TAC appointments and reappointments

Rebecca Fugitt reviewed the open committee positions and which members were awaiting reappointment.

Jet Inc. request for modification to previous approvals of the "1500 Series BAT Media Plants plus Salcor 3G UV disinfection" to include the option to utilize "1500 Series BAT Media Plants plus Jet Model 952 UV disinfection" with treatment levels of up to ≤ 20 cfu fecal coliform and to modify the listings for all approved Jet NPDES configurations to include alternate versions substituting Jet model 952 UV disinfection device in place of the Salcor 3G UV disinfection device as compliant for discharging to waters other than lake Erie and ≤ 20 cfu fecal coliform.

Chris Mandich, Jet, Inc.

Chris Mandich reviewed the modification request and the product and performance information supporting the modification. A short discussion ensued concerning the performance information and the design. Mr. Mandich noted that E coli data had not been submitted and that the manufacturer may return for additional approves of the modification at a later date.

Discussion ensued concerning the wattage and manufacturer of the ultraviolet bulb. Committee members requested that the bulb information be included in the manufacturer's maintenance material. It was noted that there was a discrepancy in the maintenance information concerning the frequency of bulb changes. Mr. Mandich stated that the manufacturer recommends that bulbs be changed every two years. The maintenance information will be corrected.

A short discussion concerning the use of replacement parts not purchased through the manufacturer ensued. Mr. Mandich noted that manufacturers require that replacement parts be purchased through the companies as a means of quality control of their product(s). Further discussion ensued concerning the use of after market components in approved sewage treatment systems.

Ray Saporito made a motion to recommend approval of the modification to Modify the "1500 Series BAT Media Plants plus Salcor 3G UV disinfection" to "1500 Series BAT Media Plants plus Jet Model 952 UV disinfection" with treatment levels of up to ≤ 20 cfu fecal coliform with the additions and corrections to the maintenance material discussed. Scott Hetrick seconded the motion. Committee members present voted in favor of the motion

Scott Hetrick made a motion to recommend approval of the request to modify the listings for all approved Jet NPDES configurations to include alternate versions substituting Jet model 952 UV disinfection device in place of the Salcor 3G UV disinfection device as compliant for discharging to waters other than lake Erie and ≤ 20 cfu fecal coliform with the discussed additions and corrections to the maintenance material. Ray Saporito seconded the motion. Committee members present voted in favor of the motion

Ecological Tanks Inc. request for modification to previous approvals of the Aqua Safe Aeration Treatment Unit and Aqua Aire Aeration Treatment unit to include discharge to the waters of the state including Lake Erie by meeting the effluent limits outlined in the OEPA General NPDES Permits for household sewage treatment systems

Rebecca Fugitt explained that she had spoken with Calvin Locker concerning this request but Mr. Locker was not able to be in attendance. Mrs. Fugitt reviewed the material that was provided by the manufacturer and forwarded to committee members prior to the meeting. Discussion ensued concerning the submitted information. Committee members noted that the confidence interval was not included for the E coli data, the performance information did not include an explanation of what designations "d" and "b" meant, and portions of one report appeared to be cut and pasted from the other report. Committee members decided not to take action on the request until the requested information is submitted.

General Permit Renewal

Rebecca Fugitt asked Mark Stump to provide an update concerning the renewal of the OEPA NPDES General Permits. Mr. Stump stated that the theme in drafting the renewal is to maintain consistency and that no big changes are expected in the permits or MOU's. Mr. Stump stated that he did expect the permit to only utilize E coli standards. Discussion ensued concerning how to address systems approved under the current permit utilizing fecal coliform standards. Mr. Stump stated that the intention is to make resources such as the sampling protocol and action levels available in the MOU. Discussion ensued concerning the sampling of systems and the relevance of grab samples. Further discussion ensued concerning the need for field testing and reevaluation of approved products.

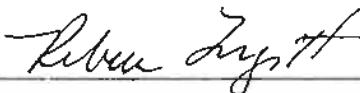
Sewage Program Updates

Rebecca Fugitt updated the committee concerning the activities of the STS Rules Advisory Committee and the local appeals boards. Mrs. Fugitt noted that the department was not aware of any activity concerning the sewage appeals boards.

The next TAC meeting is November 15, 2011 and will be held at ODNR.

The meeting was adjourned.

Approved on 12-13-11 as signified by:



Vacant, TAC Chairperson

Rebecca Fugitt, Secretary

Sewage Treatment Systems Technical Advisory Committee

MEETING MINUTES

Date: Tuesday – December 13, 2011

Time: 10:00 AM to 2:00PM

Location: Ohio Department of Natural Resources, 2045 Morse Road, Columbus

TAC Members in Attendance:

ODH Director of Health Representative & TAC Secretary – Rebecca Fugitt

ODNR Soil Scientist -- Matt Deaton

AOHC Health Commissioner –Raymond Saporito, Ashtabula County Health Department

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

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

Manufacturer Representative — Kevin Jehl, ADS, Inc.

Manufacturer Representative - Scott Hetrick, Norweco Inc.

Registered Engineer – Walt Sandefur, Sandefur Consulting

Installer/ Service Provider – Mark Fehring, Fehring Services

Designer – Joe Keiser, Streamkey, Inc.

Vacant:

Public –

Ohio Townships Association -

OEPA DSW Engineer –

Academic -

Guests:

Nick Noble and David Cotton with Orenco, Chris Mandich with Jet Inc., and Tim Smith with Delta Environmental

Other ODH participants: Nathan Johnson, Dusten Gurney, and Andrew Thomas

Welcome and Agenda review

Rebecca Fugitt explained that she would chair the meeting in the absence of the committee chair and vice chair. Discussion ensued concerning the open positions of committee chair and vice chair. The committee will discuss electing members to these positions if Mark Stump is not reappointed to continue serving as committee chair soon. Introductions were made by all in attendance. Rebecca reviewed the meeting agenda and asked for requests to modify the agenda. There were no requests to modify the agenda.

Meeting Minutes

TAC members reviewed the October 11, 2011 meeting minutes. Charles Patterson made a motion to approve the October 11, 2011 minutes. The motion was seconded by Ray Saporito. Committee members in attendance voted in favor of the motion.

Matt Deaton asked to revisit the Spray Irrigation Study Proposal heard at the meeting. He stated that he had heard concerns with the status of the OARDC site where the study is to take place. Rebecca Fugitt stated that OSU has worked out an agreement with OARDC to continue work at the site.

New TAC appointments and reappointments

Rebecca Fugitt reviewed the open committee positions and which members were awaiting reappointment.

Ecological Tanks Inc. request for modification to previous approvals of the Aqua Safe Aeration Treatment Unit and Aqua Aire Aeration Treatment unit to include discharge to the waters of the state including Lake Erie by meeting the effluent limits outlined in the OEPA General NPDES Permits for household sewage treatment systems

Rebecca Fugitt explained that she had spoken with Calvin Locker concerning this request but Mr. Locker was not able to be in attendance. Mrs. Fugitt reviewed the material that was provided by the manufacturer in response to concerns expressed by the committee in October. Discussion ensued concerning the submitted information. Committee members noted that the fecal coliform data does not demonstrate compliance with standards the sewage treatment systems has already been approved to meet. Concern was expressed in regard to the variance between fecal coliform and E coli counts in the submitted information. Furthermore, additional concern was expressed with the pattern of sampling. Committee members requested an explanation of why samples were collected some days but not others.

Discussion ensued on action to be taken on the request. Rebecca Fugitt noted that the committee had to act on the request within 90 days of receipt of the completed request and that, unless the request was withdrawn, the committee should make a recommendation concerning approval of the request at this meeting. Scott Hetrick made a motion to recommend disapproval of the modification request due to inconsistencies in the provided fecal coliform and E. coli data. Kevin Jehl seconded the motion. Committee members voted in favor of the motion. Committee members requested that Rebecca Fugitt follow up with Mr. Locker concerning the action and review options concerning the request and recommendation.

Delta Environmental, Inc. request for approval for meeting the standards outlined in the Ohio EPA's General NPDES Permit Numbers OHK000001 and OHL000001 for discharge to the waters of the state including Lake Erie.

Tim Smith with Delta Environmental, Inc.

Tim Smith reviewed the modification request and performance information supporting the modification. A short discussion ensued concerning the quantity performance information and the confidence interval for the provided data. Mr. Smith provided a revised confidence interval for the data. Discussion ensued concerning the sample port in the drawing of the product. Mr. Smith agreed to supply ODH with a revised drawing. Ray Saporito made a motion to recommend approval of the request with the correction on the unit and new confidence interval analysis. Mark Fehring seconded the motion. Committee members voted in favor of the motion.

Norweco, Inc. request for modification to previous approvals of the Singulair TNT 500 gallon per day system to change the rated capacity to 600 gallons per day.

Scott Hetrick with Norweco, Inc.

Scott Hetrick reviewed the modification request and supporting documentation from NSF. Discussion ensued concerning the submitted NSF documentation. Ray Saporito made a motion to recommend approval of the request as submitted. Dan Lark seconded the motion. Committee members voted in favor of the motion.

Orenco, Inc. request to modify the existing approved Advantex treatment system to allow the substitution of the Orenco AXUV disinfection unit for the Salcor 3G UV unit and modify the existing approval for the AX20 and AX20RT units for a design modification and approve a new product, the AX25-RT.

Nick Noble with Orenco, Inc.

Nick Noble provided an overview of the request and submitted information. Scott Hetrick expressed concern over the conventionality of the NSF test performed. Scott Hetrick also expressed concern that the treatment train was not installed and tested through NSF. Mr. Noble explained that the submitted information from NSF stated that the NSF Standard 40 on which the

original treatment train was approved could accurately be utilized to predict the performance of the new treatment train. Charles Patterson made a motion to recommend approval of the substation. Comments from Jim Cruver with Salcor, Inc. were circulated. Discussion ensued concerning Mr. Cruver's comments and concerns. Scott Hetrick asked if they have a full UL listing for the disinfection unit. Mr. Noble noted that a UL listing is not a requirement for approval in Ohio. Discussion concerning changes in the designs of other approved UV units have not been reviewed by the committee. Mark Fehring stated that the UL listing and changes in UV designs are big issues that the committee will need to address in the future. It was noted that Charles Patterson's motion remained on the table. The motion was made by Charlie Patterson and seconded by Joe Keiser. Committee members voted in favor of the motion with Scott Hetrick voting against recommendation for approval.

Charles Patterson stated that as UV disinfection units become available, the committee may want to consider reviewing and approving these units separately instead as only as part of a treatment train submitted by a different manufacturer.

Nick Noble presented the committee with a second request. Orenco is seeking recommendation for approval for a modification to the existing approval for the AX20 and AX20RT units for a design modification and approve a new product, the AX25-RT. Discussion ensued concerning the flow of effluent through the system if the filter media clogs. Mark Fehring made a motion to recommend approval of the modification for the AX20 and AX20RT and the approval of the AX25-RT. Dan Lark seconded the motion. Committee members voted in favor of the motion.

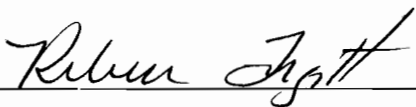
Sewage Program Updates

Rebecca Fugitt updated the committee concerning the program activities including the recent discussion of the STS Rules Advisory Committee. Rebecca Fugitt asked committee members if they have had difficulty retrieving documents from the programs SharePoint website. Rebecca Fugitt asked committee members if they wanted to change how meetings are scheduled in 2012. Committee members stated that they preferred to keep the same monthly schedule for meetings.

The next TAC meeting is January 10, 2012 and will be held at ODNR.

The meeting was adjourned.

Approved on 2-14-12 as signified by:



Vacant, TAC Chairperson

Rebecca Fugitt, Secretary