

# Ohio Department of Health And Sewage Treatment System Technical Advisory Committee

## Application Instructions for CBOD<sub>5</sub>/TSS or Ohio Revised Code 3718.04 Sewage Treatment System or Component Review

Each applicant requesting CBOD<sub>5</sub>/TSS Review or ORC 3718.04 Review shall compose a submittal that satisfies each detail outlined in these instructions. Satisfaction of these instructions is determined by the Ohio Department of Health. Each submittal shall open with a summary of the product and requested approval following the letter and number designations outlined in these instructions. The summary may refer to supplemental material (company produced product manuals, performance reports, etc.), provided it is tabbed and included in the submittal. Each submittal shall include:

- the *Application Form for CBOD<sub>5</sub>/TSS or ORC 3718.04 Review* in Tab A,
- a written request or decline for a presentation before TAC in Tab B,
- a written request or decline for confidentiality of any information included in the submittal in Tab C,
- and an Operation and Maintenance Manual designed to provide guidance to service providers and homeowners in Tab D.

Additional references must be tabbed and added to the end of the submittal. The application information shall be clear and concise to expedite review.

TAC, in cooperation with ODH, has drafted a *Standards and Guidelines for ORC 3718.04 Review*, which defines applicable standards for approval and an explanation of the review process. For more information, contact Residential Water and Sewage Program Staff at: [BEH@odh.ohio.gov](mailto:BEH@odh.ohio.gov) or (614)466-1390.

### A) **Application Form for ORC 3718.04 Review**

The application form must be signed, with the title of the person signing provided, and dated. The application form shall be provided under Tab A of the submittal.

### B) **Presentation to the STS Technical Advisory Committee (TAC)**

A written request or decline for a brief presentation (15 to 20 minutes) preceding TAC review and discussion of the request for approval must be included in TAB B. A request for a presentation shall identify if Audio and Visual equipment is needed for the presentation. Presentations should be compatible with Microsoft 2007 and saved on a CD or portable memory stick (flash drive).

### C) **Trade secrets and request for confidentiality**

A written request or decline for confidentiality must be included under Tab C of the submittal. Any application, record, report, or other information submitted to ODH for the purposes of this review shall be available to the public, except upon a showing satisfactory to the director of health that all or part of such record, report, or other information, other than effluent data, would divulge methods or processes entitled to protection as trade secrets, as defined in section 1333.61 of the Revised Code, in which instance, ODH shall consider such record, report, or other information or part thereof as confidential and administer such record, report, or other information pursuant to the following:

1. A request for confidential treatment shall be submitted to ODH simultaneously with submission of the specific application, record, report, or other information with documentation sufficient to support that all or part of the application, record, report, or other information is confidential. Failure to make such timely request shall constitute a waiver of the right to prevent public disclosure. A request at a later time will be entertained by ODH, but neither the department nor members of the TAC will be liable for any information released prior to receiving the request.

2. A decision as to whether to treat all or part of the application, record, report, or other information as confidential shall be made by the director within forty-five calendar days of receipt of the request and accompanying documentation. Until such decision is made, the application, record, report, or other information or part thereof, shall be treated as confidential. The person requesting confidentiality shall be notified in writing of the director's decision. The ODH preliminary review of an *Application for an ORC 3718.04 Review* shall begin subsequent to the director's decision.
3. Any application, record, report or other information determined to be confidential may be disclosed, without such person's consent:
  - a. To officers, employees, or authorized representatives of the state or a federal agency;
  - b. In any judicial proceeding; and
  - c. In any hearing conducted by ODH.

**D) System/Component Information**

Submit written information using the order and numbered designations provided below and indicate why any requested information is not applicable.

1. Include the model numbers, design capacity, and hydraulic capacity of each component included in the application with a general description of the component.
2. Specify the purpose of the request for approval. Identify the targeted performance standard(s) and credits or reductions from Appendices A and B to the **Standards and Guidelines for ORC 3718.04 Review**. Identify, in detail, the complete treatment train used to achieve each standard.
3. Explain the process of operation and performance (i.e. the processes or methods by which performance is achieved, and as applicable, include details on any specific claims and processes for enhanced treatment or improved performance).
4. Provide technical information for each component and/or treatment train. Refer to tabbed information in the submittal as necessary. At a minimum, include design capacity, scaled detail drawings, materials specifications, structural capacity and documentation on watertight integrity as applicable for products with subsurface containment components.
  - a. documentation of watertight integrity and structural soundness  
This documentation may include testing data, appropriate certification(s), or a signed statement from an engineer.
  - b. material specifications
  - c. detailed drawings of each model
  - d. detailed drawings of each complete system or treatment train used to achieve the standards
  - e. pump, diffuser, compressor and any other mechanical device specifications and information
  - f. alarm and control specifications and information
  - g. failsafe mechanisms specifications and information (if applicable)
  - h. post-aeration basin specifications and information including the hydraulic capacity and material specifications
  - i. pretreatment tank specifications and information including detailed drawings, hydraulic capacity, and material specifications
  - j. inspection port specifications and information including its location within the treatment train
  - k. disinfection unit specifications and information including installation and maintenance information
  - l. other component, system, or treatment train technical information
5. Identify any limitations on use, operation, or reliability related to capacity and flow fluctuations, influent restrictions or limits, siting or operating conditions, etc.

6. Summarize performance information to support the requested approval. See the *Standards and Guidelines for ORC 3718.04 Review* for an explanation of what performance information is acceptable. The complete data set and a summary table identifying the average and standard deviation of all normally distributed data, and the geometric mean and geometric standard deviation (the first moment of the transformation) of all data that is not normally distributed, and the confidence intervals of all data. Appendix C of the *Standards and Guidelines for ORC 3718.04 Review* explains the derivation and interpretation of confidence intervals. Unless provided by a third party certifier, the applicant shall provide the data set in an excel spreadsheet or longhand form (the step by step process used in the statistical analysis) to allow TAC to check/ confirm the analysis. The data set must be accompanied with a detailed explanation of:
  - a. a description of the treatment train and each sampling location
  - b. testing type and regimen
  - c. the testing protocol
  - d. identification of the individuals participating in the chain of custody, collection, transportation, and evaluation of the sample, and who produced any report(s)
  - e. the dates of samples and range of environmental conditions including temperature
  - f. influent concentration and flows
  - g. operation and maintenance conducted during the testing period.
  - h. identification of the applicability of the results to other scaled models
  
7. Provide siting and installation related information:
  - a. any site restrictions or siting criteria (i.e. minimum footprint, access for service)
  - b. any soil characteristics that may affect performance
  - c. detailed written installation instructions including any siting, soil, or depth of cover specifications or restrictions
  - d. an abbreviated installation checklist for installer documentation (see criteria below\*)
  - e. identification of any required or available installer certification or training
  
8. Provide service related information, as applicable:
  - a. O&M manual with detailed instructions including maintenance schedule for routine service and residuals management
  - b. O&M service checklist for service provider documentation (see criteria below\*)
  - c. Description of availability of service providers and/or distributors
  - d. Sources for replacement parts and any restrictions on replacement parts
  - e. Identification of any required or available service provider certification or training
  - f. Information on service contract availability and any warranty conditions
  - g. Estimates of operational costs and expected service life
  - h. A PDF file, suitable for web posting, shall be submitted to ODH upon approval. The file shall include a copy of the Operation and Maintenance Manual, checklists identified in D 7 (d) and D 8 (b), and a detailed drawing of each treatment train obtaining approval by ODH. The treatment train drawings shall be labeled with each reduction or credit awarded by ODH.

*\*Criteria for developing an installation or O&M service checklist – Items 7.d) and 8.b) include a checklist for the installer and inspector and a checklist for the service provider. The purpose of the installation checklist is to summarize all of the critical installation steps which, if not done as specified, may result in sub-standard system performance, less than optimum component or system life span and higher maintenance expense over the life of the system, or place a time-consuming burden on a service provider. The checklist also provides a guide for an inspector to verify that the installation and documentation are consistent and accurate.*

*This is the applicant's opportunity to improve quality assurance for the proper installation and inspection of their product and provide the means to document that the installation has been done according to their installation standards. This checklist is not intended to substitute for installer training or reading the installation manuals, but is to serve as a method of documenting that the critical installation steps have been completed as required. Service providers reviewing the checklist should be assured that no installation errors were made to result time-consuming problems for their business.*

*The purpose of the O&M checklist is to specify the service operations, to provide a means of documenting performance of the service operations, to create a service record and to provide a service report for the customers.*

*\*Such checklists provided by the applicant should be developed as follows:*

- 1. Use clear, direct language (simple sentences written in active voice), so that the reader (i.e. installer, service provider, inspector, home owner) can easily understand what is required.*
- 2. Critical materials are specified. (Example: type and size of aggregates for bases and back fills)*
- 3. Requirements for critical vertical and horizontal control over the installation are described as an acceptable range of values.*
- 4. Steps are described in such a way that an inspector can easily make a "pass or fail" determination.*
- 5. The checklists reinforce the training provided by the product manufacturer or their agent and summarize the installation instruction provided with the product.*
- 6. Acceptable alternative methods or materials are to be limited, listed and are to meet all of the above criteria.*