



Ohio Administrative Code

Rule 3701-29-13 Product standards, review, and operation and maintenance.

Effective: September 30, 2019

(A) Approved leaching trench products utilizing a non-gravel fines-free distribution system shall receive approval of the director through one of two processes as follows:

(1) For the two product types meeting the description provided in paragraphs (A)(1)(a) and (A)(1)(b) of this rule, approval may be granted by the director after administrative review. Manufacturers or their authorized representatives whose chamber and bundled expanded polystyrene distribution media products meet the specifications in paragraphs (A)(1)(a) and (A)(1)(b) of this rule shall submit technical, design, performance, installation, and O&M information to support all manufacturer claims as requested by the director for administrative review. Installation information shall include a product-specific installation checklist for use by contractors and inspectors. The checklist shall provide enough information to guide installations and inspections. Upon administrative review the director may approve or disapprove the chamber or expanded polystyrene bundle system. If the director disapproves the manufacturer's request, the manufacturer may seek approval through the process specified in section 3718.04 of the Revised Code.

(a) Chamber distribution products eligible for administrative approval shall:

(i) Eliminate the need for gravel leaching trenches and replace it with an open bottom, plastic chamber;

(ii) Provide adequate void space for the passage and temporary storage of effluent. Adequate void space shall be considered the volume of void space provided by the equivalent area of a gravel leaching trench;

(iii) Provide suitable effluent distribution and provide an interface with the infiltrative surface of the trench bottom and side wall soil for absorption of the effluent; and

(iv) Be certified by the IAPMO to meet property standards PS 63-2005 et seq.



(b) Bundled expanded polystyrene distribution media products eligible for administrative approval shall:

(i) Eliminate the need for traditional gravel and replace it with a perforated pipe surrounded by tightly packed expanded polystyrene aggregate and enclosed in polyolefin netting. When used in combination with expanded polystyrene bundles containing a perforated pipe, additional bundles are not required to contain a perforated pipe;

(ii) Provide adequate void space for the passage and temporary storage of effluent while maintaining a stable density throughout the life of the system. Adequate void space shall be considered the volume of void space provided by the equivalent area of a gravel leaching trench;

(iii) Support the distribution pipe where required, provide for suitable effluent distribution, and provide an interface with the infiltrative surface of the trench bottom and side wall soil for absorption of the effluent;

(iv) Maintain the integrity of the excavation, support soil backfill and cover material, and weight of equipment used in backfilling;

(v) Be fabricated from non-decaying and non-deteriorating materials, meeting applicable industry standards that do not leach unacceptable chemicals when exposed to effluent and the soil environment; and

(vi) Be certified by the IAPMO to meet guide criteria IGC 276-2011 et seq.

(B) A pretreatment component shall only be permitted by a board of health for use in a STS if approved by the department of health in accordance with this rule and section 3718.04 of the Revised Code.

(1) The department of health shall maintain a list of approved pretreatment components and the associated treatment level the product is listed to obtain.



(2) Except as provided in paragraph (D) of this rule, a listed pretreatment component shall be approved for a maximum period of five years, and may be reevaluated at any time during the approval period when there is evidence of noncompliance with this rule or there has been a change in design of the pretreatment component. A manufacturer may apply for renewal of its approval at anytime prior to the end of the approval period, at which point the product will be reevaluated.

(3) Information submitted for renewal or reevaluation shall include an updated list of distributors and service providers and may include additional field or test data, design changes to the product or treatment train, installation or operation modifications, and changes in service provider availability. The department of health may require field testing or monitoring for the purposes of renewal or reevaluation. If a manufacturer does not submit information in accordance with this paragraph, the department of health shall remove the pretreatment component or the manufacturer from the list of approved pretreatment components in accordance with Chapter 119. of the Revised Code.

(4) Pretreatment components are subject to review by the director of health for compliance with the conditions of approval and applicable law and rules. A pretreatment component may be reevaluated at any time when there is evidence of noncompliance with approval conditions or for other reasons deemed necessary to assure compliance. Upon review, if there is a determination of noncompliance, a pretreatment component or the manufacturer may be removed from the approved list in accordance with Chapter 119. of the Revised Code.

(C) Aerobic type treatment systems and applicable special device approvals previously approved by the director of health prior to January 1, 2007 shall be conditionally listed as meeting the CBOD_5 and TSS standard in paragraph (A) of rule 3701-29-14 of the Administrative Code for a maximum period of one year, during which time, the manufacturer of the system or device may submit an application for review.

(D) Sewage treatment systems products, including pretreatment components reviewed in accordance with section 3718.04 of the Revised Code by the sewage treatment systems technical advisory committee and/or approved by the director of health after January 1, 2007 and before January 1, 2015 shall continue to be approved as follows:

(1) Products approved prior to January 1, 2009 shall be approved through December 31, 2020;



(2) Products approved between January 1 and December 31, 2009 shall be approved through December 31, 2021;

(3) Products approved between January 1, 2010 and December 31, 2012 shall be approved through December 31, 2022;

(4) Products approved between January 1, 2013 and December 31, 2014 shall be approved through December 31, 2023;

If director approves the renewal application, the five year approval period for these pretreatment components shall begin upon the date of renewal.

(E) In accordance with division (A)(17) of section 3718.02 of the Revised Code, pretreatment components shall be structurally sound and watertight except for those pretreatment components that are approved to disperse effluent directly to the soil, sand bed or gravel. Pretreatment components shall be clearly and permanently labeled by the manufacturer and/or per the approved design. Where appropriate, anti-flotation measures shall be provided.

(F) Pretreatment components shall be designed to have effluent sampling capability at the endpoint of the treatment process prior to dispersal to the soil or discharge to the surface and be designed with consideration of accessibility and safety and provide the capability to collect a sample in accordance with paragraph (F)(2) of this rule. These components shall be designed and sampled as follows:

(1) Sample ports for sewage treatment systems must meet the following specifications to allow for proper collection of samples:

(a) The sample port shall be constructed from watertight material with watertight joints;

(b) The invert of the inlet shall be installed at least eight inches above the bottom of the sample port;

(c) The sample port shall be constructed and installed in such a way as to allow for at least two inches



of fall between the invert of the inlet and outlet of the sample port;

(d) The sample port shall have a minimum clearance of eight inches for sample ports less than two feet deep or twelve inches for sample ports between two feet and six feet deep at the point of sample collection between the inlet and outlet pipes; and

(e) Sampling ports for discharging systems shall allow samples to be collected from a free falling stream of sufficiently low flow to enable proper sample collection at the end of the discharge pipe in the provided inspection port.

(2) Samples shall be collected in compliance with all applicable standards and ODH-provided sampling guidance or other manufacturer produced, product specific collection guidance and the following:

(a) Grab samples shall be collected from a free falling stream of sufficiently low flow to enable proper sample collection at the end of the discharge pipe, valved pressured discharge piping, or in the provided inspection port;

(b) Unless otherwise unable to collect a free flowing grab sample, sampling should not be collected from stagnant water or inside a component of the system; and

(c) Composite samples may be collected in lieu of grab samples for suspended solids, CBOD₅ and nutrients, if allowed by the general household NPDES permit.

(3) Manufacturers who want to collect samples from a valve in the pressurized discharge piping located within the post aeration tank shall submit written guidance for the proper collection of samples from the valve to the department of health.

(4) Sampling ports for soil based combined treatment and dispersal systems may be required as authorized by the director and specified in the application and approval of the product.

(G) Disinfection components shall not discharge disinfection residuals to a soil absorption component.



(H) Installation shall be conducted in a manner consistent with manufacturer and designer specifications to allow for proper O&M and monitoring of the pretreatment component.

(I) All pretreatment components shall have written O&M instructions with approved maintenance frequencies for service and the registered installer shall provide the O&M instructions to both the owner and the board of health as a condition of installation approval and approval by the director of health. A board of health may require a copy of a manufacturer's instructions for the O&M of a system to be filed with the board prior to the installation and use of the system in the health district. A board of health and the manufacturer shall provide a copy of the O&M instructions upon written request to the system owner.

(J) Covers and risers shall be secured and be easily accessible for monitoring and maintenance of the entire pretreatment component and be installed at or above grade to prevent infiltration of surface water. Covers and risers used for service of pretreatment components shall be installed in accordance with manufacturer requirements or director's approval. Vented access lids must be installed above grade in accordance with manufacturer requirements or director's approval.

(K) Pretreatment components not subject to review and approval under section 3718.04 of the Revised Code shall be submitted to the department for review and subsequent approval or disapproval by the director. Certification with one of the following third party testing protocols shall constitute sufficient proof of compliance with the CBOD₅ /TSS standard in paragraph (A) of rule 3701-29-14 of the Administrative Code:

(1) ANSI/NSF Standard 40 certification of compliance with current ANSI/NSF Standard 40 by an ANSI/CSA accredited third party certifier;

(2) BNQ Standard NQ 3680-910CE; or

(3) N Standard EN 12566-3.

(L) In accordance with division (A) of section 3718.04 of the Revised Code, a manufacturer seeking approval for the installation and use of a sewage treatment system or a component of a system in



this state that differs in design or function from systems or components of systems the use of which is authorized in rules adopted under section 3718.02 of the Revised Code shall submit an application to the director and the sewage treatment systems technical advisory committee for review and recommendation for approval or disapproval by the director of health.

(M) Manufacturers of sewage treatment system treatment trains approved for use in the state of Ohio shall be required to provide documentation as proof of certification for those individuals or companies qualified to oversee installation, install, or service their products. Qualified individuals or companies shall retain said documentation and provide it to the department or board of health upon request.

(N) Manufacturers of pretreatment components shall be required to maintain a list of system installations and locations either directly or through a local distributor. The list shall be accessible to the board of health or the department of health upon request.

(O) Manufacturers of sewage treatment systems and treatment trains approved for use in the state of Ohio shall be required to provide training, certification, recertification and related documentation as applicable to service providers, installers and system owners on the proper installation, operation and maintenance of the component or system. Manufacturers shall ensure that there is more than one service provider reasonably accessible to owners of installed systems, and that parts and special tools are readily available.

(P) STS pretreatment components shall be operated, maintained, and monitored as necessary to ensure compliance with any applicable effluent quality standards established in this rule or the final effluent limitations set forth in a NPDES permit issued by the Ohio EPA. Devices critical to the performance of pretreatment components shall be maintained as manufacturer's original equipment matching the system configuration approved by the director.

(Q) Pretreatment components and systems installed to meet the effluent quality standards set forth in a general household NPDES permit issued by the Ohio EPA shall meet the following requirements:

(1) The pretreatment component and/or full treatment train shall include a failsafe mechanism that provides an audible and visual alarm in the event of a component malfunction and one of the



following mechanisms to ensure proper response:

(a) An integrated pump lock-out that prevents the discharge or forward flow of effluent that does not meet the effluent quality standards set forth in a NPDES permit. Pump tanks with integrated pump lock-out features designed to prevent discharge of effluent are exempt from the requirements of paragraph (J)(2) of rule 3701-29-12 of the Administrative Code; or

(b) A remote telemetry device to automatically notify the service provider and, if required, the board of health, in the event of a system alarm event or system malfunction; and

(2) Installation of a sampling port that meets the requirements of paragraph (F) of this rule at the end of the treatment train. The point of discharge shall have sufficient freeboard to prevent the backup of surface water into the system.

(R) Tertiary treatment devices designed to provide additional treatment for discharging systems that are unable to meet the effluent quality standards of the household general NPDES permit shall be reviewed by the sewage treatment systems TAC and approved or disapproved by the director in accordance with section 3718.04 of the Revised Code. Boards of health may permit the addition of tertiary treatment devices on STS installed under the coverage of the household general NPDES permit to abate public health nuisances as defined in division (A)(4) of section 3718.011 of the Revised Code. Boards of health shall maintain a list of tertiary treatment devices installed within their jurisdiction.