Wastewater Regulations and Home-Based Businesses

Do you want to start a business from your home?
Are you thinking about operating a business from your home? One important thing to consider when determining if your home location is suitable for a business is how wastewater and sewage from the business will be handled.

As a first step, it is important to know what kind of sewage treatment system you have and what effect the business operation may have on that system. It also is important for you to understand Ohio EPA’s wastewater regulations and how these would apply to your business activities.

Does your home have an on-site sewage treatment system?
Your home may have its own on-site treatment system (called a household sewage treatment system) for handling sewage and wastewater. These systems are common for homes in small communities and rural areas. However, there also are areas within large cities that are unsewered, where homes and small businesses still have their own on-site treatment systems.

An on-site household treatment system usually consists of a buried septic tank or aeration tank and a drain field (also called a leach field or leach bed) in the front or back yard. Wastes from the kitchen, bathrooms and laundry areas flow into the septic tank where solids are trapped and wastewater flows from the tank to the drain field. The soils surrounding the drain field help to gradually remove contaminants from the wastewater as it moves through the ground.

If you want to expand or use a portion of your home as a business or if you want to construct a building on your property, your existing on-site sewage treatment system may NOT be adequate to handle waste from the business. The system may not be large enough or adequately designed to handle the type of waste or increased volume of sewage and wastewater discharged from the business, particularly if you plan to add restrooms, sinks or kitchen facilities.

On-site treatment systems are designed mainly to handle domestic sewage and wastewater. Discharging higher amounts of solids like dirt, food, fats or oils into the on-site treatment system can quickly fill up a septic tank or clog a drain field. In addition, chemicals like paint thinners, acids, detergents, automotive wastes and others can kill the important bacteria that help the system break down wastes and function properly. These chemicals also can travel through the septic tank into the drain field, making their way directly into underground drinking water sources. Because of this, Ohio EPA has strict regulations against the use of on-site treatment systems for the disposal of process wastewater or industrial-related wastes from a business.
Wastewater Regulations and Home-Based Businesses

If I have a residential sewage treatment system, does this mean I can’t run a business from my home?

Not necessarily, but it is important that you know what kind of system you have and its limitations. The existing system may be adequate for the proposed business. It might be possible to expand or modify the existing on-site system to handle sanitary (sewage-related) waste from the business. This might mean increasing the capacity of the septic system and drain field or installing a new system.

Local health departments are responsible for regulating private household sewage treatment systems. However, when all or part of a home is converted to a business operation, the sewage treatment system is no longer considered a household system and it falls under Ohio EPA’s water pollution control regulations. Ohio EPA’s requirements for a sewage treatment system servicing a business can be quite different from the requirements for a household system.

Before you modify the existing sewage treatment system to accommodate your new business, you will have to get a permit-to-install (PTI) for those modifications. If your sewage treatment system discharges water to a creek, river, ditch or other body of water, you will need a permit for this discharge from Ohio EPA, called a National Pollutant Discharge Elimination System (NPDES) permit.

There are strict prohibitions against using an on-site treatment system for disposing of process or industrial wastewater. Only waste/wastewater from your bathrooms and sinks (called sanitary waste) can be discharged to an on-site system. You must find another way to manage wastewater containing chemicals or other contaminants (for example, oils, grease and heavy metals), such as installing a holding tank. See the last section of this fact sheet for more information about holding tanks.

Help Avoid Problems. . . Talk to Ohio EPA Before Making Any Changes to Your On-Site Sewage Treatment System

Before you set up your business at home, contact your local Ohio EPA district office, Division of Surface Water. The division staff can help you evaluate how your proposed business will affect the operation of the existing on-site sewage treatment system. In addition, staff can tell you if changes to the system will be needed, the permitting process for those changes and the possible limitations on the use of the system.

A professional consultant specializing in the design of sewage treatment systems also can help you evaluate an existing on-site system. This information will give you an idea of the cost and time involved in changing your system for business use and let you make a better decision about whether to set up your business at home or explore other alternatives. The consultant can also help you prepare the necessary plans for modifications and represent you in inspecting the contractor’s work.

Regulations for Small Flow On-Site Sewage Treatment Systems

The small flow on-site sewage treatment system (SFOSTS) is a category of sewage treatment system established in 2005 by Chapter 3718 of the Ohio Revised Code (ORC). Under this law, small flow on-site sewage treatment systems are permitted either by local health departments or Ohio EPA. Where a local health department has assumed SFOSTS authority, it is responsible for regulating and issuing permits for these systems. Where the local health department has not assumed SFOSTS authority, Ohio EPA issues permits. For more information, including a list of local health departments that have SFOSTS authority, see the Ohio Department of Health’s website at www.odh.ohio.gov/odhprograms/eh/sewage/STSpages/sfosts1.aspx.

An SFOSTS is defined as an on-site system (other than a household system) that treats no more than 1,000 gallons per day of sewage only. Small flow manufacturing facilities, dental offices, beauty salons, veterinary offices, funeral homes, etc., may be able to install a SFOSTS approved by the local health department only if any industrial or process wastewater is segregated from sanitary wastes entering the system. You must discuss options and permit requirements for managing any non-sewage portion of your wastewater (such as medical waste, industrial waste or chemical-laden wastewater) with Ohio EPA’s Division of Surface Water. A small flow system with a discharge that requires an NPDES permit does not meet the definition of SFOSTS and remains under Ohio EPA authority. Any system that proposes to expand beyond 1,000 gallons per day treatment capacity will remain or return to Ohio EPA authority.

IMPORTANT

To ensure that your on-site system can be used and to avoid costly mistakes, it is important to discuss your proposed activities with Ohio EPA beforehand. Contact your local Ohio EPA district office, Division of Surface Water with any questions that you have. See map to find your local Ohio EPA district office.
Wastewater Regulations and Home-Based Businesses

It is important to remember that Ohio EPA’s regulations require that you submit an application and have an approved PTI BEFORE you make any changes to the sewage treatment system or begin constructing a new system. The PTI application requires submittal of detailed engineering plans which must be stamped by a professional engineer (P.E.).

Is your home connected to a sanitary sewer?

If your home is connected to a public wastewater treatment plant through a sanitary sewer, the process of converting to business activities may be easier. Often, the local publicly owned treatment works (POTW) is responsible for regulating the businesses that discharge wastewater to them.

A large POTW may easily be able to handle the additional wastewater from your business. However, even large wastewater treatment plants are not generally designed to handle industrial wastes like chemicals, metals, oils, etc. They are designed to handle sewage-related wastes and wastewater. Because of this, the treatment plant may require you to perform pretreatment to reduce or remove metals, oils, grease, chemicals or other contaminants before discharging your wastewater to them.

Talk to the wastewater treatment plant about your proposed business activities beforehand. You need to get permission to discharge and may need a permit from them. In addition, you may also be required to comply with other requirements. For example, if you need to construct any wastewater storage or treatment units, you will be required to obtain a PTI from Ohio EPA.

Holding Tanks: Other Options for Handling Industrial or Process Wastewater from Your Business

If you have an industrial wastewater that you can’t discharge to your on-site sewage treatment system, or if you can’t gain access to a sanitary sewer in your area, you can collect industrial wastewater from your business in a separate holding tank.

A holding tank requires a PTI from Ohio EPA’s Division of Surface Water (DSW). If you have heavy metals or chemicals in your wastewater, your tank may also be regulated as a hazardous waste tank by Ohio EPA’s Division of Environmental Response and Revitalization (DERR). If you want to install a holding tank, try and keep waste chemicals out of the tank and stored in separate containers. When you are ready to discard chemicals, you must evaluate them and properly manage any hazardous wastes, including shipping them to a permitted hazardous waste disposal facility.

You’ll need to contact a hauler to empty your holding tank. The wastewater must be evaluated and delivered to a commercial wastewater treatment facility or, if hazardous waste, a permitted hazardous waste disposal facility.

Contact your local Ohio EPA district office to discuss your options and requirements for installing a holding tank.

The holding tank option would only apply to the collection of industrial wastewater (for example, process wash waters, wastewater from equipment cleaning, etc.). This option would NOT be approved by Ohio EPA for collection of septic (sewage) related waste or wastewater.

More Information

Selecting the right business location is an important decision for many reasons, including minimizing unexpected costs of managing sewage and wastewater. If you have additional questions or need more information, contact DSW in your local Ohio EPA district office.

DSW’s PTI website (epa.ohio.gov/dsw/pti/index.aspx) includes information and links to permit application forms for on-site systems and holding tanks. It also includes information about counties that have or will take on the small flow on site treatment system requirements. One helpful document is the Onsite Sewage Treatment and Disposal Systems guidance, available at epa.ohio.gov/portals/35/guidance/OSTS_interim_5-21-08.pdf.
Wastewater Regulations and Home-Based Businesses

Glossary of Terms

National Pollutant Discharge Elimination System (NPDES) permit: This permit is issued by Ohio EPA to anyone who wants to discharge wastewater into waters of the state.

Publicly Owned Treatment Works (POTW): A treatment plant that handles sewage and wastewater from homes and businesses. Most POTWs are owned and operated by a village, city or county. Wastewater is treated at the POTW and then discharged, usually to a stream, river or lake.

Household sewage treatment system: A septic or aeration system designed to treat sanitary waste/wastewater generated from a one, two or three-family dwelling. Septic systems are commonly found on residential properties where sanitary sewers are not available.

Sanitary sewer: Restrooms and sinks in many homes and businesses (especially in cities) are hooked up to a sanitary sewer. Wastes travel through a system of pipes to a local POTW. Wastewater is treated at the POTW and then discharged, usually to a stream, river or lake.

Storm sewer: A collection system for rainwater. These types of sewers include the gutter systems that you see along streets and roads. Runoff collected in storm sewers travels directly into a ditch, stream, river or other water body without being treated.

Waters of the state: Water bodies like rivers, lakes, wetlands and creeks. Other systems that convey water, like ditches or storm sewers, commonly lead to waters of the state.

Unsewered area: This is a geographical area that does not have access to municipal sanitary sewers.

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50 W. Town St., Suite 700
Columbus, OH 43215
(614) 644-3020

Central District Office
Lazarus Government Center
50 W. Town St., Suite 700
Columbus, OH 43215
(614) 728-3778
(800) 686-2330

Northwest District Office
347 N. Dunbridge Rd.
Bowling Green, OH 43402
(419) 352-8461
(800) 686-6930

Northeast District Office
2110 E. Aurora Rd.
Twinsburg, OH 44087
(330) 963-1200
(800) 686-6330

Southeast District Office
2195 E. Front Street
Logan, OH 43138
(740) 385-8501
(800) 686-7330

Southwest District Office
401 E. Fifth St.
Dayton, OH 45402
(937) 285-6357
(800) 686-8930

Toll-free numbers are for citizens with questions or concerns about environmental issues. The regulated community should use the business line for routine business. Spills and emergencies should be reported to (800) 282-9378.