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Ohio EPA's 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? There are many home-based businesses in Ohio, including auto repair shops, beauty salons, equipment repair, medical/dental offices, kennels, bakeries and others. One important thing to consider in 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 is also 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 residential treatment system) for handling sewage and wastewater. These systems are common for homes in small communities and rural areas. However, there are also areas within large cities that are unsewered, where homes and small businesses still have their own on-site treatment systems.

An on-site residential 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 can also travel through the septic tank into the drain field, making their way directly into underground sources of drinking water. Because of this, Ohio EPA has strict regulations against the use of on-site treatment systems for the disposal of process water or industrial-related wastes from a business.



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 adding an additional capacity to the septic system, increasing the size of the drain field or building a new drain field.

Local health departments are responsible for regulating private residential 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 residential system and 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 residential system.

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Before you modify the existing sewage treatment system to accommodate your new business, you will have to get a permit-to-install (also called a 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 an NPDES permit.

There are strict prohibitions against using an on-site treatment system for disposing of process or industrial wastewater. Only waste/wastewater (called sanitary waste) from your bathrooms and sinks 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 on 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, they 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 can also 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

New Regulations for Small Flow On-Site Sewage Treatment Systems

The small flow on-site sewage treatment system (SFOSTS) is a new 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, they are 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 Web site at www.odh.ohio.gov/odhPrograms/eh/sewage/sfosts1.aspx. A 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 a National Pollutant Discharge Elimination System (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.

make a better decision on 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.

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

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 for local Ohio EPA offices.

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 wastewater treatment plants (called POTWs) are responsible for regulating the businesses that discharge wastewater to

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them. A large public wastewater treatment plant 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 permit-to-install (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. 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 Hazardous Waste Management. 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 these 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 hazardous waste disposal facility.

Contact your local Ohio EPA district office Division of Surface Water and Division of Hazardous Waste Management 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.

REMEMBER: It's important for you to know that you CANNOT discharge wastewater directly into creeks, rivers, wetlands or other surface waters (called waters of the state) without obtaining an NPDES permit from Ohio EPA. This includes discharging industrial wastewater into conveyance systems (for example, storm sewers and field tiles) that lead to surface waters. Also, you CANNOT discharge wastewater from the business onto the ground outside of a building. By doing any of these activities, your company could be found in violation of the Clean Water Act or other environmental laws.

Where Can I Get 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 your local Ohio EPA district office Division of Surface Water.

Helpful Web Links

Ohio EPA, Division of Surface Water Onsite Sewage Treatment and Dispersal Systems
www.epa.state.oh.us/dsw/pti/OnsiteSystems.html

This site includes information and links to permit application forms for on-site systems and holding tanks. It also includes information on counties that have or will take on the small flow on site treatment system requirements.
www.epa.state.oh.us/dsw/pti/index.html

Glossary of Terms

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

POTW- Called a publicly owned treatment works. It is 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.

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Residential 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 and snow melt runoff. 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, can also lead to waters of the state.

Unsewered areas- This is an area of a community that does not have access to municipal sanitary sewers. These areas are served by private residential or commercial sewage disposal systems.

OhioEPA District Offices



CDO Central District Office
50 W. Town St. Suite 700
Columbus, OH 43215
(614) 728-3778
www.epa.state.oh.us/cdo

SEDO Southeast District Office
2195 Front St.
Logan, OH 43138
(740) 385-8501
www.epa.state.oh.us/sedo

NEDO Northeast District Office
2110 E. Auroa Rd.
Twinsburg, OH 44087
(330) 963-1200
www.epa.state.oh.us/nedo

SWDO Southwest District Office
401 E. Fifth St.
Dayton, OH 45402-6357
(937) 285-6357
<http://swdoweb.epa.state.oh.us>

NWDO Northwest District Office
347 N. Dunbridge Rd.
Bowling Green, OH 43402
(419) 352-8461
www.epa.state.oh.us/nwdo