

# NEBRASKA

## DEPT. OF ENVIRONMENTAL QUALITY

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WAT056

December, 2016

## Onsite Wastewater Systems: Frequently Asked Questions

### Assistance/Records

**How can I obtain information and/or copies of documents maintained by the Department regarding individuals, certified professionals, sites where onsite wastewater treatment systems have been installed, complaints and enforcement actions?**

- The public is welcome to review the Department's public records. Such requests, however, must be in writing and can be faxed to (402) 471-2909; emailed to [ndeq.records@nebraska.gov](mailto:ndeq.records@nebraska.gov); or mailed to the following address:

DEQ Records Management Unit  
1200 N Street, Suite 400  
PO Box 98922  
Lincoln, NE 68509-8922

- Some documents are considered by the Department to have broad appeal and have been mass-produced or may exist on the agency web site at <http://deq.ne.gov/>. These items are free to the public and include brochures from the Nebraska Department of Environmental Quality (NDEQ) and EPA, annual reports, rules and regulations, news releases and other documents.

**Note:** Requests that require research or assembly of information that has not been compiled are beyond the scope of the public records statute.

**How do I file a complaint related to an onsite wastewater treatment system such as a wastewater discharge or work performed by an uncertified individual?**

- Call the Onsite Unit at (402) 471-4285 or submit the complaint via email to [ndeq.problem@nebraska.gov](mailto:ndeq.problem@nebraska.gov) or [ndeq.onsite@nebraska.gov](mailto:ndeq.onsite@nebraska.gov). It is our goal to investigate each and every complaint we receive in a timely manner. In some cases, however, the information is not sufficient or not timely enough to allow us to conduct an appropriate follow-up. If you report a complaint, please provide the following information:
  - Name, address and telephone number of the alleged violator;

- Business name, address and telephone number (if different);
  - The physical location of the complaint (i.e., street address or legal description and County) and directions to the location;
  - The property owner's name, address and telephone number (if different from alleged violator);
  - Complaint description;
  - Date and time of occurrence (Is it an ongoing situation?); and
  - Any other information relevant to the complaint.
- If you wish to remain anonymous, do not provide personal identifying information. Please note that the omission of contact information may limit the ability of the agency to fully investigate the complaint should additional follow-up information be needed.
- Reminder:** It is unlawful for any person to furnish material information known to be false to any governmental agency of the State with the intent to instigate or impede an investigation.

## General

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### **What is soil fracturing by air injection and is it an acceptable method for rejuvenating a drainfield?**

- Soil fracturing is a process that injects air, and sometimes polystyrene pellets, in the area of the drainfield.
- No. The air fracturing process is prohibited in [Title 122 – Rules and Regulations for Underground Injection and Mineral Production Wells](#).

### **Can household “graywater” be used to water the lawn or plants?**

- No. The discharge of wastewater is prohibited to the land surface from a dwelling, [non-dwelling facility](#), building sewer, or onsite wastewater treatment system without Department approval.
- Wastewater means liquid and water borne wastes from a dwelling or non-dwelling facility. Wastewater includes both blackwater and graywater.
- Graywater is defined as all domestic waste excluding blackwater and including bath, lavatory, laundry and sink waste except kitchen sink waste.

### **My water well is located near a septic system drainfield. Is my water safe to drink?**

- Have your well water tested regularly for nitrate and fecal coliform. Contact your nearest Natural Resources District office, local health department or local University of Nebraska – Lincoln Extension office for assistance.

### **How do I know if my septic system is failing?**

- An obvious sign of a failing system is the discharge of wastewater to the ground surface such as a “daylighted” system or a discharge via an open pipe.
- By definition, a failed or failing system also includes a discharge of effluent or wastewater to:

- A cesspool, seepage pit, dry well, or leaching pit;
- An absorption system with less than four feet to ground water; or
- Which threatens to cause pollution of any air, water or land of the State, or which threatens public health.

**Is a composting (waterless) toilet subject to the regulatory requirements of Title 124 - Rules and Regulations for the Design, Operation, and Maintenance of Onsite Wastewater Treatment Systems?**

- No. Provided there is no running water or plumbing connected to the composting toilet (i.e., no wastewater is generated).
- There are also no solid waste permitting or special handling requirements under [Title 132 – Integrated Solid Waste Management Regulations](#) for small composting operations as long as the device produces a “finished compost” (humus like material suitable for unrestricted use as a soil conditioner) and is operated in accordance with the manufacturers specifications. Finished compost should be spread and worked into the soil.

**Does the Onsite Wastewater Program approve onsite wastewater treatment system products or technologies?**

- The Department does not have an approval process for products or technologies. However, the Agency can disapprove, restrict products and technologies or place conditions on their use through the issuance of a [permit](#).
- The use of non-standard products or technologies in septic systems in Nebraska requires the submittal of an [application](#) for a construction/operating permit.

**Can dental amalgam be discharged to a septic system?**

- No. Dental amalgam is primarily composed of liquid mercury and other metal alloys (tin, silver and copper) and is not suitable for disposal in septic systems. The discharge of dental amalgam may upset the biological waste treatment processes occurring in the absorption, infiltrative or evaporative system associated with a septic system and may also affect local groundwater quality.
- Onsite wastewater treatment systems, such as a [holding tank](#), accepting non-domestic wastewater containing dental amalgam, are subject to the [permitting](#) requirements of [Title 124](#). Waste accumulated in a holding tank will eventually require removal and may require a waste determination/testing in accordance with [Title 128 – Nebraska Hazardous Waste Regulations](#) to ensure disposal at an appropriate waste management facility.

**What types of wastes are “other than domestic wastewater”?**

- Domestic wastewater does not include process waste from any industrial, agricultural or commercial establishment, automotive or industrial chemicals or petroleum products, kitchen waste or wastewater from a restaurant or food preparation facility, water carrying animal waste or commercial process water or wastewater.

- Wastes that are not typical household wastes are not suitable for disposal in a septic system and include:
  - Recreational vehicle (RV) wastewater tank disinfectants and deodorants;
  - Chemicals from laboratories;
  - Food production/preparation wastes from meat processing/butcher shops/restaurants;
  - Chemicals and waste from veterinary clinics and dog kennels;
  - Production wastes from a winery/distillery/brewery;
  - [Motor vehicle](#) and equipment repair and maintenance shop wastes; and
  - Hair salon products.

**Note:** This is not a complete listing. Please contact the Onsite Wastewater Program for further information on a particular waste type.
- The owner of a dwelling or [non-dwelling facility](#) proposing to construct an onsite wastewater treatment system for other than household type wastes must apply for and obtain a [construction/operating permit](#) from the Department.

## Permits/Approvals

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### **When is a construction or operating permit required for an onsite wastewater treatment system?**

1. A [permit](#) must be obtained from the Department whenever:
  - The domestic wastewater design flow is more than 1,000 gallons per day;
  - The design flow includes wastewater other than domestic;
  - The system may endanger human health or cause pollution; and
  - The system cannot meet all the provisions for design, setback distances and reserve area prescribed in [Title 124](#) including:
    - § [Soil percolation](#) rates slower than 60 minutes per inch;
    - § Less than 4foot separation from the bottom of the trench to groundwater; and
    - § Construction of a household [lagoon](#) on a lot with less than three acres.

**Note:** When an onsite wastewater treatment system requires a [permit](#) in accordance with [Title 124](#) the owner must obtain a construction permit from the Department prior to start of the work and an operating permit from the Department prior to use of the system. The construction permit and the operating permit for a single system are covered by [one application](#).

### **Can a Master Installer prepare plans, specifications, reports and other technical documents submitted as part of a permit application?**

- Yes, provided the [permit application](#) is for an onsite wastewater treatment system:
  - With domestic wastewater flows of 1,000 gallons per day or less;
  - That does not endanger human health or cause pollution and which meets all the provisions for setback distances and reserve area; and
  - That does not meet all the provisions for design prescribed in [Title 124](#) to be covered by [“Authorization by Rule”](#).

## **Can I make changes or modifications during the installation of an onsite wastewater treatment system that was issued a construction permit without obtaining prior approval from the Department?**

- No. An onsite wastewater treatment system must be constructed according to the Department approved design.
- The owner must notify the Department of any changes to the approved design including, but not limited to:
  - Additions;
  - Changes in wastewater characteristics (quality or quantity); and
  - System design or layout.
- Approval must be obtained from the Department prior to changes being made to the system.
- If you are the Installer on a construction [permit](#) project, please review the approved documents with the consulting engineer before construction begins.

## **What is the application fee for an onsite wastewater treatment system construction/operating permit?**

- \$450

## **What is the fee for Departmental review and approval of a development area where an onsite wastewater treatment system is proposed on any lot less than three acres in size?**

- \$450 per subject lot

## **Do I need to obtain a permit for the construction/operation of an onsite wastewater treatment system for a non-dwelling facility?**

- The owner of a [non-dwelling facility](#) proposing to construct, reconstruct, alter or modify an onsite wastewater treatment system must apply for and obtain a [construction permit](#) from the Department prior to construction and an [operating permit](#) from the Department prior to operation if:
  - The domestic wastewater design flow is more than 1,000 gallons per day;
  - The design flow includes wastewater other than domestic wastewater; or
  - The onsite wastewater treatment system is not covered by "[Authorization by Rule](#)".

## **Professional Certification**

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### **How do I become a certified professional?**

- To become certified, an applicant must submit:
  - [An Application for Certification by Exam](#);
  - [Certification fee](#); and

- [Exam fee.](#)
- Pass an examination administered by the Department.

### **When does my professional certification expire?**

- All certificates by examination expire December 31 of every odd-numbered year.

### **How many hours of continuing education must I complete during a two year certification cycle?**

- A [certified professional](#) must successfully complete a minimum of 12 hours of continuing education during every 2 year certificate period.
  - For a certificate newly issued in the first or even numbered year of a two year certification cycle, a minimum of 12 professional development hours must be completed during the first certificate period.
  - For a certificate newly issued in the second or odd numbered year of a two year certification cycle, a minimum of 6 professional development hours must be completed.

### **How do I renew my professional certificate?**

- To renew a valid certificate, a certified professional must submit prior to the expiration date of the certificate:
  - An [Application for Renewal](#);
  - A completed Record of Continuing Education; and
  - [Renewal fee.](#)

### **My professional certificate has expired and I did not complete a minimum of 12 hours of continuing education during the two year certificate period. What do I need to do to become re-certified?**

- Yes. You must submit:
  - An [Application for Certification by Exam](#);
  - [Certification fee](#); and
  - [Exam fee.](#)
- Pass an examination administered by the Department.

### **My certificate has expired and I completed a minimum of 12 hours of continuing education during the two year certificate period. Can I still renew my expired certificate?**

- Yes. A person may late renew their expired certificate within 60 days after the certificate has expired by submitting the following to the Department:
  - An [Application for Renewal](#);
  - A completed Record of Continuing Education;
  - [Renewal fee](#); and
  - Late renewal penalty of \$50.

- The late renewal application including the record of continuing education, renewal fee and late penalty must be received by the Department no later than 60 days after the certificate has expired.

**My certificate has expired and I did not submit a late renewal application within 60 days of expiration of my certificate. What do I need to do to become re-certified?**

- In order to obtain certification once the 60 day late renewal period has expired, the following must be submitted to the Department:
  - An [Application for Certification by Exam](#);
  - [Certification fee](#); and
  - [Exam fee](#).
- Pass an examination administered by the Department.

**Is a homeowner who does not have the proper certification allowed to work on or pump their own onsite wastewater treatment system?**

- No. Only a [certified professional](#), a professional engineer, a registered environmental health specialist or a person under their direct supervision may engage in the inspection, pumping, siting, layout, construction, reconstruction, alteration, modification, repair, [closure](#) or otherwise changing of an onsite wastewater treatment system. There is no homeowner exemption from this requirement.

**I am a building inspector for a local governmental agency and frequently conduct inspections of new septic systems. Do I need to apply for and obtain certification from the State for inspecting onsite wastewater treatment systems?**

- Yes, unless you are a Professional Engineer licensed in Nebraska or a Registered Environmental Health Specialist. State law does not provide an exemption from the [certification requirements](#) for employees working for local or county agencies that inspect septic systems. However, the Private Onsite Wastewater Treatment System Contractors Certification and System Registration Act allows the Director of the NDEQ to waive [certification and examination fees](#) for any inspector employed by a governmental agency or subdivision that has adopted and has the authority to enforce an inspection and compliance program at least as stringent as the standards provided by the Act and the Department's rules and regulations.
- To obtain the governmental inspector fee waiver and Title 124 certification, eligible applicants must do the following:
  - Submit an [Application for Certification by Exam](#); and
  - Submit verification of your employment as an inspector of onsite wastewater treatment systems by a local government agency or subdivision. A signed letter from your supervisor or other cognizant official will suffice. The Department may request additional information as needed to verify employment or to determine that the local inspection program is at least as stringent as the requirements in [Title 124](#).
- Pass the inspector [examination](#) administered by the Department.



**Note:** An Inspector who is granted this fee waiver will be limited to inspecting as a government employee within the jurisdiction and under the authority of that local governmental agency or subdivision.

### **How do I become certified in multiple categories?**

- An individual seeking certification by examination in multiple categories of [certification](#) may submit a single [Application for Certification by Examination](#) with one [application fee](#) for one or more categories, but must submit the [examination fee](#) for each examination to be taken. A separate examination is required for each category sought. When an application is made for multiple categories and the application fees for the categories are different, the applicant must submit the highest fee.

### **How many professional development hours may be carried over into the next two year certification cycle?**

- A maximum of 6 hours in excess of the minimum 12 hours of continuing education required during any certification cycle may be carried over.
- Once a certificate has expired and the late renewal has lapsed, the professional development hours also expire and there can be no carryover of excess hours.

### **I own a business and have several crews working for me. Does at least one person on each crew need to be certified when installing, pumping or otherwise working on septic systems?**

- Yes. [Title 124](#) states that no person shall engage in the siting, layout, construction, reconstruction, alteration, modification, repair, closure or otherwise changing of an onsite wastewater system unless a Master Installer, a Journeyman Installer, a professional engineer, or a registered environmental health specialist who is responsible for such work is physically present at the site where such work is being performed and is supervising the work.

### **Do I need to obtain certification from the Department to pump restaurant grease traps or sludge from sumps and pits at vehicle maintenance or carwash facilities that are connected to a public sanitary sewer system?**

- No. However, some local jurisdictions may have licensing or permitting requirements.

## **Private Onsite Wastewater Treatment System Advisory Committee (OWAC)**

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### **What is the Private Onsite Wastewater Treatment System Advisory Committee (OWAC)?**

- The advisory committee advises the Department on proposed rules and regulations relating to the Private Onsite Wastewater Treatment System Contractors Certification and System Registration Act, on [Title 124](#) and on administration of the Act as requested by the Director.



- The advisory committee is composed of eleven members. Seven are appointed by the Director of the Department of Environmental Quality of which five are private onsite wastewater treatment system professionals and two are registered environmental health specialists or officials representing local public health departments which have established programs for regulating private onsite wastewater treatment systems. The remaining four members include the Director of Health and Human Services Regulation and Licensure or his or her designated representative; the Director of Environmental Quality or his or her designated representative; and one representative with experience in soils and geology and one representative with experience in biological engineering, both of whom shall be designated by the vice chancellor of the University of Nebraska Institute of Agriculture and Natural Resources.

### **How do I become a member of the Private Onsite Wastewater Treatment Advisory Committee?**

- The members of the committee appointed by the Director shall serve at the pleasure of the Director, but not for more than two four-year terms. The Director shall appoint a replacement for any member who shall resign or otherwise conclude his or her term on the committee for any position which the Director made the initial appointment.
- The [OWAC Fact Sheet](#) provides a listing of current committee members.
- If you are interested in becoming an OWAC member, please contact the Department at (402) 471-4285.

### **System Design, Installation and Inspection**

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#### **When must an existing onsite wastewater treatment system meet the design requirements of Title 124?**

- If it endangers public health, fails, or discharges a prohibited or unauthorized discharge. A cesspool, seepage pit, dry well, or leaching pit is a failed system. A soil absorption system with less than four feet to groundwater or other limiting soil characteristics is also a failed system.
- If it is being replaced, reconstructed, altered or modified.
- If there is an adverse change in use such as an increase in the number of bedrooms, design flow, or waste strength.
- If it begins to receive wastewater from a different dwelling or [non-dwelling facility](#) than it was originally constructed to serve.
- If it begins to receive wastewater from a dwelling or non-dwelling facility that is reconstructed or replaced following an event such as a fire that renders the structure unsuitable for occupancy.
- If the system owner creates or causes an encroachment on a setback distance by a change in a property line or construction of a new development feature such as a well, water line or foundation.

## When am I required to obtain authorization from the Department for the construction or operation of a Class V injection well?

- Class V wells include, but are not limited to septic system drainfields or soil absorption systems:
  - Accepting sanitary waste generated by 20 or more persons;
  - Accepting a fluid flow greater than 1,000 gallons per day;
  - Receiving non-domestic wastes.
- Any person who plans to construct or operate a Class V injection well must complete, sign, and submit to the Department an application for each well as required in accordance with [Title 122](#).

## Can I connect a floor drain from an automotive repair business to an onsite wastewater treatment system?

- No. The discharge of [motor vehicle wastes](#) to a septic system is prohibited. Motor vehicle means mechanized equipment used in agriculture, construction, industrial activities, maintenance, recreation, or transportation.
- A [floor drain](#) in a dwelling garage, however, may be connected to an onsite wastewater treatment system provided the drain does not receive petroleum products, paint, organic solvents, antifreeze or hazardous materials and meets the following [Title 124](#) design requirements:
  - The drain has an integral mud trap and oil separator; and
  - The drain is equipped with a watertight cap or a valve that is located immediately following the drain. The cap must normally be left secured on the drain or the valve must normally be left closed.
- The drain must also be designed to handle only snow and ice melt with occasional water from vehicle exterior washing.

## How do I convert or abandon a floor drain located in a maintenance area, wash bay or area used for the storage of chemicals, oils, fuels, or hazardous materials that discharges to a septic system, leach field, cesspool, dry well or the land surface?

- Connect to a city sanitary sewer, a [holding tank](#), or a synthetically lined [lagoon](#).
- Permanently plug the discharge line and use the remaining sump to collect wastes; or
- Permanently plug the drain (including the sump) completely with concrete and run a “dry” shop.

**Note:** The connection of a floor drain to a holding tank, or a synthetically lined lagoon requires a [permit](#) under [Title 124](#). Waste accumulated in a holding tank, synthetically lined lagoon or a sump converted to a holding tank will eventually require removal and may require a waste determination/testing to ensure disposal at an appropriate waste management facility. You should also check local ordinances for rules regarding floor drains connected to the sanitary sewer system and other waste disposal ordinances or regulations.

### **Does the Department inspect new onsite wastewater treatment systems?**

- No. However, some local jurisdictions may have inspection requirements.

### **Does the Department inspect existing onsite wastewater treatment systems?**

- No. However, the Department may conduct investigations of a system on an individual basis as the result of a complaint.

### **Does the State of Nebraska conduct inspections of septic systems as part of a real estate transfer?**

- Yes. The Nebraska Department of Health and Human Services conducts water well and septic system inspections for a fee. The inspection is strictly voluntary and is typically requested by the lender or buyer prior to the sale of the property. Some local jurisdictions do have separate property transfer inspection requirements. Please check for local requirements. Private inspectors certified to inspect onsite wastewater treatment systems can be found on the [list of certified professionals](#) on the NDEQ website at <http://deg.ne.gov/>

### **Does a lot need to be at least one-half acre in size to meet the design standards for the installation of a new septic system?**

- No. There are no minimum lot size requirements in [Title 124](#) for the installation of an onsite wastewater treatment system. However, it may be difficult to site a standard septic system on a lot that is smaller than one-half acre due to soils and other site conditions.
- Regardless of lot size, all septic systems must meet specific standards with respect to system design and setbacks to surface water, drinking water wells, water lines, property lines and foundations.

**Note:** Some local jurisdictions may have requirements that include lot size limits or more restrictive requirements.

### **How do I close/abandon a septic tank or a private wastewater treatment lagoon?**

- An onsite wastewater treatment system must be properly [closed](#) whenever use of the system is discontinued following connection to a sanitary sewer or following condemnation or demolition of a building or property or due to the construction of another onsite wastewater treatment system.
    - Tank
      - § Pump the tank of all liquids and solids then fill the tank with earth and tamp completely so there are no voids; or
      - § Pump the tank of all liquids and solids then remove the tank and fill the void with earth. The earth must be mounded to provide for future settling.
- Note:** Disinfectant or anti-bacterial products may be used to clean the tank as an optional step in preparing the tank for closure.

- Lagoon
  - § Drain the lagoon until there are no liquids remaining then remove the fence and scrape out and properly dispose of any settled solids and liner material.
  - § Fill the lagoon with earth. The dirt must be mounded over the lagoon area to provide for future settling.

**Note:** Only a [certified professional, a professional engineer, a registered environmental health specialist](#) or a person under their direct supervision may engage in the closure of an onsite wastewater treatment system.

### **What is a non-dwelling facility?**

- A [non-dwelling facility](#) is defined in [Title 124](#) as a building, structure, place of business, place of gathering or waste collection system which is not a dwelling and which generates wastewater.
- If any portion of the wastewater generated at a building, structure or place is a non-domestic wastewater, the facility is also considered a non-dwelling facility.
- Examples of non-dwelling facilities where onsite systems may be used include:
  - Small rural business office;
  - Storage facility;
  - Garage; or
  - Workshop.

**Note:** [Title 124](#) and [Title 122](#) prohibit the discharge of [motor vehicle wastes](#) or maintenance shop wastes to a septic system or to a soil absorption system. In addition, the connection of a floor drain from a maintenance shop to a septic system or soil absorption system is prohibited.

### **Can I install a septic tank within the minimum setback distance to a foundation?**

- The installation of a [septic tank, pump tank, or holding tank](#) is prohibited within the horizontal setback distances in Table 5.1 of [Title 124](#) unless individually reviewed and a [construction permit](#) is issued by the Department.
- The Department, however, may approve, at the system owner's request, encroachment of a foundation within the minimum setback distances to system components upon submittal of a foundation construction plan and a letter from a professional engineer stating that he or she has evaluated the proposed construction plan and in his or her professional opinion, the encroachment will not have any detrimental effect on the structural integrity of the foundation or system components, or on the proper function and operation of the system components, or on the ability to maintain or replace any of the system components.

### **Can wastewater from open loop heat pump systems and other “pump-and-dump” type systems be discharged to a septic system?**

- No. Clear water discharges from open loop heat pump systems can generate large quantities of water that can quickly overwhelm an onsite wastewater treatment system. This type of clear water discharge is not included in standard wastewater design flow calculations and is therefore prohibited from entering an onsite wastewater treatment

system unless approved in a [Title 124](#) operating permit and an authorization to discharge is obtained pursuant to [Title 122](#). A Title 122 permit may also be required.

- The following additional clear water discharges are also prohibited from entering a septic system unless approved in a Title 124 [permit](#):
  - Cooling water;
  - Ground water infiltration;
  - Discharge from roof drains;
  - Discharge from foundation drain tiles; and
  - Swimming pool wastewater.

**Note:** In accordance with [Title 119 – Rules and Regulations Pertaining to the Issuance of Permits Under the National Pollutant Discharge Elimination System](#), water from single family household non-recirculating geothermal heat pumps and swimming pools may be discharged to the land surface provided certain conditions are met and the discharge does not create a threat to public health or safety, a nuisance or unlawful pollution of waters of the state.

### **Can condensate from air conditioners and wastewater from water treatment systems such as water softeners and reverse osmosis (RO) systems be discharged to a septic system?**

- Yes. For a dwelling or a [non-dwelling facility](#) with more than 1,000 gallons per day (gpd) design flow, a Title 124 [operating permit](#) and a [Title 122](#) authorization to discharge is required. A Title 122 permit may also need to be obtained from the Department.
- For a dwelling or a non-dwelling facility with a design flow of 1,000 gpd or less, the Department considers discharges from air conditioners, water softeners and RO systems to be included in the standard domestic wastewater design flow and therefore covered under [“Authorized by Rule”](#). Periodic high concentrations of wastes from water softener and RO systems, however, may present problems for treatment in a septic system due to salts/chlorides and uranium concentrations.

### **Can a soil absorption system be installed in fill?**

- Yes, provided the fill material is sand, or when the bottom 12 inches or more of the trench or bed is located in undisturbed native soil below the fill.

**Note:** When constructing a system in sand fill, sufficient time must be allowed after placement of the fill, or sufficient compaction efforts applied to the fill, to prevent settlement after the system is installed.

### **What is the minimum capacity septic tank that can be installed for a non-dwelling facility?**

- For a [non-dwelling facility](#) with a design flow of over 1,500 gallons per day (gpd), the liquid capacity of a [septic tank](#) must be at least equal to 1,125 gallons plus 0.75 times the design flow. For flows of 1,500 gpd or less, 1.5 times the design flow may be used, but a minimum of a 1,000 gallon tank is required.
- For a non-dwelling facility served by multiple septic systems, the minimum septic tank capacity for each system must be 1,000 gallons.

## How do I size an absorption field for a non-dwelling facility?

- The required square footage of drain field trench for a [non-dwelling facility](#) can be determined using the appropriate wastewater flow rate in Table 14.2 of [Title 124](#) or by use of the following equation:
  - The daily design flow multiplied by (0.20 multiplied by the square root of the percolation rate).

$$\text{sq ft} = \text{design.flow (gpd)} \times 0.20 \times \sqrt{\text{percolation rate (min/in)}}$$

## Is the installation of a riser for access to a septic tank lid or the addition of a cleanout considered a “repair”?

- Yes. A repair is defined In [Title 124](#) as the correction of a mechanical, electrical, or minor structural defect in an existing onsite wastewater system component such as, but not limited to, sealing a crack in a tank lid, repairing or replacing a tank baffle or access manhole riser, repairing or replacing a pump or electrical switch, leveling a distribution box, replacing a building sewer pipe, or replacing a cracked pipe between the [septic tank](#) and soil absorption system.
- Repairs and maintenance can be performed on an onsite wastewater treatment system that functions properly without being subject to the design requirements of the regulations.

## How do I calculate the design flow for a single family dwelling?

- For a single family dwelling the design flow shall not be less than 100 gallons per day plus 100 gallons per bedroom (see Table 12.1 in [Title 124](#)).

## How do I calculate the design flow for a non-dwelling facility?

- The design flow for a [non-dwelling facility](#) must not be less than the highest daily wastewater flow that is calculated to be generated based on the characteristics of the occupancy and use of the facility.
- For non-dwelling facilities, the quantity of flow generated for various occupancy and uses must also be consistent with nationally recognized data published by the United States Environmental Protection Agency ([USEPA Onsite Wastewater Treatment System Manual, Chapter 3: Establishing Treatment System Performance Requirements](#)), state onsite wastewater regulatory agencies, or nationally recognized plumbing codes.
- If the use of a non-dwelling facility includes residential occupancy, the estimated flow from the non-residential use must be added to a residential design flow of 100 gallons per day plus 100 gallons per day per bedroom.

## Can an onsite wastewater treatment system be located on property not owned by the individual or facility using the system?

- Yes, provided a properly executed property easement that includes provisions for operation and maintenance of the onsite system easement has been filed.

- A copy of the filed easement must also be submitted with the [system registration](#).

## System Registration

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### How do I register an onsite wastewater treatment system?

- A [System Registration for Onsite Wastewater Treatment System](#) containing information described in [Title 124](#) must be submitted to the Department by the certified professional, professional engineer, or registered environmental health specialist.
- Alternatively, the system registration information may be submitted on a form provided by the Director.
- A non-refundable system registration [fee](#) must accompany the System Registration for Onsite Wastewater Treatment System.

**Note:** The certified professional, professional engineer, or registered environmental health specialist must provide a copy of the system registration information to the system owner.

### What system location information is required when registering an onsite wastewater treatment system?

- Owner's mailing address;
- Physical address of the system (if different from owner's);
- The system legal description (quarter section, quarter section, section, township, and range) or geographical coordinates (latitude and longitude to four decimal points); and
- County.

### The septic tank and drain field have been installed, however, final grading of the system has not been completed. When must I submit the System Registration for Onsite Wastewater Treatment System and registration fee to the Department?

- An onsite wastewater treatment system must be [registered](#) with the Department by the [certified professional](#), professional engineer, or registered environmental health specialist within 45 days of completion of the construction, reconstruction, alteration, modification, or other change.
- The Department has interpreted "completion of construction" to mean that all onsite wastewater treatment system components have been installed, constructed or modified so that the system piping, treatment devices or other appurtenances that convey, treat or dispose of wastewater are ready to be used. The NDEQ does not consider construction completion of an onsite system to be dependent upon construction of any dwelling or building to which the system may be connected, final grading, seeding, or the date of receipt of payment for work performed.

**Reminder:** The installer is responsible for registering an onsite wastewater treatment system whether the system is installed under ["authorization by rule"](#) or under a construction [permit](#).



**What is the fee for registering an onsite wastewater treatment system?**

- \$140, if the system is registered within 45 days of completion of construction, reconstruction, alteration, modification, repair, or otherwise changing of the onsite wastewater treatment system.

**What is the fee for registering an onsite wastewater treatment system if the system is not registered within 45 days of completion of construction, reconstruction, alteration, modification, repair, or otherwise changing of the onsite wastewater treatment system?**

- For any registration received by the Department 46 to 90 days after completion of work, an initial late system [registration fee](#) of \$150 must be added to the system registration fee.
- For any registration received by the Department 91 days or more after completion of work, a final late system registration fee of \$450 must be added to the system registration fee.

**Do I have to register a temporary modification to an onsite wastewater treatment system?**

- Yes. A [System Registration for Onsite Wastewater Treatment System](#) must be submitted to the Department by the certified professional, professional engineer, or registered environmental health specialist making the temporary modification.
- A written description must accompany the registration which:
  - States that a temporary modification was made; and
  - Describes the problem that caused the discharge and the reason the temporary modification was made.
- A non-refundable system [registration fee](#) must accompany the System Registration for Onsite Wastewater Treatment System.

**Note:** Use of a system with a temporary modification for more than four months without Department approval is prohibited.