

DRAFT
CHAPTER 65
PRIVATE SEWAGE DISPOSAL SYSTEMS

65.01 PURPOSE. The purpose of this chapter is to safeguard public health by minimizing the impact of on-site sewage treatment and disposal by promoting the maintenance of existing systems and employing best technology for new system installation.

65.02 APPLICABILITY. The provisions contained herein apply to any system that provides for the treatment or disposal of domestic sewage from four or fewer dwelling units or the equivalent of less than 16 individuals on a continuing basis, including domestic waste, whether residential or nonresidential, but not including any industrial waste of any flow rate except for on-farm food processing provisions described in 567 IAC 68.

65.03 ADOPTION OF STATE CODE. Pursuant to the authority granted in Section 137.104 of the *Code of Iowa*, the Board of Health adopts, in its entirety, by reference, the following Iowa Administrative Code 567 IAC chapter 69 – *Private Sewage Disposal Systems*.

65.04 DESIGNATED AGENCY. Pursuant to Chapter 137 of the *Code of Iowa*, the Story County Environmental Health Department (EH) is the designated agency to interpret, monitor and enforce the rules contained in Iowa Administrative Code 567 IAC chapter 69 – *Private Sewage Disposal Systems*.

65.05 ADDITIONAL RULES. Pursuant to Section 137.104 of the *Code of Iowa*, the Board of Health adopts the additional rules contained in this chapter regulating private sewage disposal systems.

65.06 DEFINITIONS.

1. Bedroom means a place where people sleep. Story County does not have a building code, so there are no specific items, such as an egress, a closet, minimum room size, minimum height, etcetera, that make a room a bedroom. Septic system sizing is based on the number of bedrooms and soil type. A bedroom, for septic sizing, accommodates two people. At the time of transfer, the number of bedrooms listed shall match the number of bedrooms used for sizing the septic system. Generally speaking, the number of bedrooms for the septic system design should match the assessor's records.

2. Certified Installer means a person who qualifies as a Certified Installer of On-site Wastewater Treatment Systems (CIOWTS). Certification, recertification, and continuing education for CIOWTS is accredited by the Iowa On-site Waste Water Association (IOWWA). CIOWTS certification obtained prior to January 1, 2018 may continue to track continuing education credits with the National Environmental Health Association (NEHA) or IOWWA. After January 1, 2018, accreditation and continuing education credit tracking is only available through IOWWA. If the IOWWA Board members have good reason to believe the certified installer is not meeting the standards of a CIOWTS contractor, the IOWWA board has the authority to revoke a certification, with an appeal process available for the contractor. Refer to the IOWWA *Certified Installer On-site Wastewater Treatment Systems Credentialing Handbook*.

3. Class 'A1' water, as per the State of Iowa water classifications, also referred to as a primary contact recreational use water, means waters in which recreational or other uses may result in prolonged and direct contact with the water, involving considerable risk of ingesting water in quantities sufficient to pose a health hazard. Such activities would include, but not be limited to, swimming, diving, water skiing, and water contact recreational canoeing.

4. Class 'A2' water, as per the State of Iowa water classifications, also referred to as a secondary contact recreational use water, means waters in which recreational or other uses may result in contact with the water that is either incidental or accidental. Such uses include fishing, commercial and recreational boating, any limited contact incidental to shoreline activities and activities in which users do not swim or float in the water body while on a boating activity.

5. Class 'A3' water, as per the State of Iowa water classifications, also referred to as a children's recreational use water, means waters in which recreational uses by children are common. Such waters are water bodies having definite banks and bed with visible evidence of the flow or occurrence of water. This type of use would primarily occur in urban or residential areas.

6. Maintenance contract means a binding document between the property owner and a maintenance contractor. A maintenance contractor has been deemed a certified technician by the system's manufacturer to service, monitor, make minor repairs, and report on said manufactured system. For systems no longer being manufactured, a person may service a septic device via permission granted by a variance issued by the EH. Maintenance contractors are not required to be a Certified Installer.

7. Professional Soils Analyst means a person who is knowledgeable in evaluating soil characteristics, such as color, texture, and structure, in order to determine an equivalent percolation or loading rate. A person performing a professional soil analysis shall demonstrate training and experience in soil morphology, such as testing absorption qualities of soil by the physical examination of the soil's color, mottling, texture, structure, identifying seasonal groundwater levels, and interpreting topography as it relates to the placement of septic systems. Professional Soils Analysts include, but are

not limited to, civil engineers, environmental engineers, wastewater engineers, soil scientists, and environmental scientists. A person wanting to work in Story County as a Professional Soils Analyst shall submit an application and supporting documentation to the EH. Application forms shall be provided by EH. Minimum qualifications include a Bachelor’s Degree in Environmental Studies, Soils, Engineering or a related degree, and have at least two years of experience conducting site evaluations. An appeal for denials may be requested in writing to the BOH within thirty days of EH’s decision.

65.07 ABBREVIATIONS.

- 1. **BOH** Story County Board of Health
- 2. **CBOD5** Carbonaceous biochemical oxygen demand (five-day)” means the amount of oxygen consumed in the biological processes that break down carbonaceous organic matter in water by aerobic biochemical action in five days at 20°C
- 3. **CIOWTS** Certified Installer of Onsite Wastewater Treatment
- 4. **EH** Story County Environmental Health Department personnel
- 5. **EPA** Federal Environmental Protection Agency
- 6. **IDNR** Iowa Department of Natural Resources
- 7. **IOWWA** Iowa On-site Wastewater Association
- 8. **NEHA** National Environmental Health Association
- 9. **NOI** Notice of Intent
- 10. **NPDES** National Pollutant Discharge Elimination System
- 11. **PSDS** Private Sewage Disposal System
- 12. **TSS** Total Suspended Solids

65.08 SETBACKS.

Setbacks more stringent than the IDNR requirements have been established to enhance water quality protection. Septic systems installed prior to the adoption of this ordinance are not subject to the new setbacks, nor are repairs of septic systems installed prior to adoption of this ordinance are subject to the new setbacks.

Minimum Distance in Feet From	Closed Portion of Treatment System (1)	Open Portion of Treatment System (2)
Private water supply well	50	100
Shallow public water supply well (3)	200	400
Deep public water supply well (4)	100	200
Groundwater heat pump borehole	50	100
Lake or reservoir	50	100
Stream (other than Class A1 A2 or A3 waters)	25	25
Pond	25	25

Class 'A1' water (primary contact recreational use water)	50 (new)	100 (new)
Class 'A2' water (secondary contact recreational use water)	25 (new)	50 (new)
Class 'A3' water (children's recreational use water)	50 (new)	100 (new)
Edge of road ditch	10	10
Edge of drainage district ditch	25 (new)	50 (new)
Dwelling or other structure	10	20 (was 10)
Property lines (unless a mutual easement recorded)	10	10
Other type of subsurface treatment system	10 (was 5)	25 (was 10)
Water lines continually under pressure	10	10
Suction water lines	50	100
Foundation drains or subsurface tiles	10	10

- (1) Includes septic tanks, aerobic treatment units, fully contained media filters and impervious vault toilets.
- (2) Includes subsurface absorption systems, mound systems, intermittent sand filters, constructed wetlands, open bottom media filters and waste stabilization ponds.
- (3) “Shallow well” means a well located and constructed in such a manner that there is not a continuous layer of low-permeability soil or rock (or equivalent retarding mechanism acceptable to the department) at least 5 feet thick, the top of which is located at least 25 feet below the normal ground surface and above the aquifer from which water is to be drawn.
- (4) “Deep well” means a well located and constructed in such a manner that there is a continuous layer of low-permeability soil or rock at least 5 feet thick located at least 25 feet below the normal ground surface and above the aquifer from which water is to be drawn.

65.09 INDIVIDUAL SEPTIC SYSTEMS REQUIRED. The sharing of a septic system by two or more parcels not owned by the same person or entity is prohibited. Sharing of a septic system from multiple wastewater sources on one parcel is acceptable.

65.10 ALTERATION REQUIRES COMPLIANCE. No person shall begin construction, reconstruction, alteration, or repair of any on-site septic system until the owner has complied with all of the applicable regulations of the Board of Health and the Iowa State Department of Natural Resources (IDNR).

65.11 WHEN SEPTIC CONSTRUCTION PERMIT NEEDED:

1. New construction with wastewater generation
2. Existing system with increased wastewater loading and/or wastewater strength
 - a. A Planning & Development application for a Zoning Permit for increasing the number of bedrooms for an existing dwelling
 - b. A Planning & Development application for a Conditional Use Permit
 - c. A Planning & Development application for a Home Business Permit

3. Replacement or enlargement of the secondary system

65.12 DOCUMENTS NEEDED FOR OBTAINING A SEPTIC CONSTRUCTION PERMIT:

1. Environmental Health's application form with payment
3. Professional Soils Analyst site evaluation and design diagram
4. Maintenance contract if required
5. Easement rights if required (easements shall be recorded with the Story County Recorder)

65.13 WHEN SEPTIC REPAIR PERMIT NEEDED:

1. Septic tank or pump chamber replacement
2. Distribution box replacement
3. New wastewater generation is being directed to an existing system

65.14 NEW WASTEWATER GENERATION THAT IS TO BE DIRECTED TO AN EXISTING SEPTIC SYSTEM. A new wastewater stream may be directed to an existing system only if the following is true:

1. The existing system is a permitted system.
2. The existing system is large enough to accommodate the total wastewater load, existing and new.
3. The existing system has been inspected by an IDNR certified time of transfer inspector, and found to be in good condition.
4. A repair permit has been obtained from EH.

65.15 DOCUMENTS NEEDED FOR SEPTIC REPAIR PERMIT:

1. Environmental Health's application form and payment

65.16 APPLICATION FOR SEPTIC CONSTRUCTION OR SEPTIC REPAIR

PERMIT. Any person, firm, or corporation wishing to construct or reconstruct a private sewage disposal system in Story County shall submit an application for a construction permit to EH. Application shall be made on forms provided by EH. Information provided shall contain, at a minimum, name of property owner, name of applicant, parcel identification, type of facility and/or anticipated wastewater volumes, number of existing and proposed bedrooms, number of buildings that have wastewater generation, name of certified septic installer, name of professional soils analyst conducting the site evaluation (not required for repair permits), property owner's permission for EH to enter premises, and any additional information requested by EH.

65.17 FEES. An application for permit must be accompanied by an application fee, as set by the Board of Health. Fees shall be payable to the Story County Treasurer, and directed to EH.

65.18 SITE EVALUATION. Site evaluations are required prior to issuance of a construction permit, and shall be conducted by a professional soils analyst.

65.19 SITE EVALUATION REPORT CONTENT. The professional soils analyst report shall include, at a minimum:

1. Descriptions of the soil cores to at least 60”
2. Soil core locations, shown on a map or diagram
3. Depth to limiting layer and type of limiting layer
4. Soil loading rates and/or percolation rates
5. Recommended septic system type
6. Options for system location
7. Easements required for the construction, placement, or maintenance of the septic system not located on the septic applicant’s property
8. Diagram showing the location and setbacks of existing/proposed water wells, geothermal wells, geothermal loops, buildings, waterways, subsurface tiles, buried utilities, known locations of buried rubble, existing easements that may impact the construction of the septic system.
9. Detailed diagram of septic system design. Any changes to the design shall be in writing as an amendment to the professional soils analyst’s report and diagram.
10. Pump, piping, hole spacing, dosing, and alarm system recommendations if pressurized system

65.20 REVIEW OF SITE EVALUATION. Site evaluations shall be performed in the presence of EH. The professional soil analyst shall contact EH at least 48 hours prior to conducting the evaluation. If EH is not available for the evaluation, the professional soil analyst shall conduct the evaluation, and submit the site evaluation report to EH. Upon receipt of the site evaluation report, EH shall confirm the findings of the site evaluation by visiting the site and reviewing the soils, topography, setbacks and any other matters prior to issuing the permit. EH may request a follow-up meeting with the professional soil analyst to answer questions regarding the site evaluation.

65.21 ENGINEER’S DESIGN. EH may require a state certified engineer’s design for system proposals for commercial, institutional, or public service facilities with special wastewater treatment needs or large wastewater volumes. Official design plans shall include the engineer’s name & signature, date, license renewal date, and engineer’s seal.

65.22 SUBDIVISIONS. An assessment of a proposed subdivision having more than four lots shall be conducted by a professional soil analyst and the EH prior to finalizing the subdivision layout. Soil based treatment is the preferred method of treatment and septic system placement shall be a key part of the planning phase for subdivisions. Establishing lot sizes, lot lines, green spaces, easements, and road placement for a subdivision shall consider the soils, slope, waterways and sensitive environmental areas, providing for soil based wastewater treatment as much as possible.

65.23 SOIL PROTECTION. As per the findings of the individual lot site evaluation or the subdivision assessment, the proposed wastewater soil absorption area(s) shall be cordoned off to prevent soil compaction from construction traffic.

65.24 CONSTRUCTION PERMIT TO BE ISSUED BY EH. Upon receipt and EH approval of the application, payment, site evaluation report, easement documents (if required) and maintenance contract (if required), EH shall issue a permit using information obtained from the site evaluation report, soil survey, flood maps, permit application, and other pertinent information. EH may apply policy or variations of design, which have been approved or recommended by the BOH, the professional soil analyst, the Federal Environmental Protection Agency (EPA), IDNR, or the University Extension Engineering Specialists in efforts to enhance wastewater treatment or increase the system's longevity. The permit shall outline the basic construction design and minimum system size as defined in 567 IAC 69, along with any restrictive conditions or requirements. Mandatory system maintenance and monitoring requirements, easements, and other special conditions shall be stipulated on the permit.

65.25 DENIAL OF PERMIT. EH may deny issuing a permit if the application is incomplete or any factors for defining the wastewater treatment system are absent or shown to be inadequate.

65.26 VOIDING OF PERMIT. The wastewater treatment system's construction plan, stipulated in the Story County Board of Health Permit, shall be followed. Any variation from that which is defined in the permit voids the construction permit.

65.27 PERMIT EXPIRATION. A permit for construction shall expire two calendar years from the date of issuance. EH may extend the expiration date as deemed necessary.

65.28 CERTIFIED INSTALLER. All septic installations, constructions, reconstructions, and repairs shall be conducted by contractors who qualify and are in good standing as a Certified Installer of On-site Wastewater Treatment Systems (CIOWTS).

65.29 REQUEST FOR FINAL INSPECTION. The installer shall notify EH at least eight working hours, between 8:00 a.m. and 5:00 p.m. before the completed system is to be available for final inspection.

65.30 FINAL INSPECTION. All newly constructed or reconstructed private or repaired sewage disposal systems shall be inspected by EH. The secondary system shall remain uncovered and the tank accessible until inspected by EH. A certified installer shall be available to discuss details of the installation. EH will inform the installer of any concerns with the system installation, and how to remedy them. The purpose of this inspection is to collect field data in order to document the system's description and location, to determine if the permit intent was accomplished, and to assess the workmanship.

65.31 CERTIFICATE OF INSTALLATION. Upon completion of the inspection of the newly constructed or reconstructed private sewage disposal systems, EH shall issue a Certificate of Installation. The certificate shows that the system was installed by a certified installer according to the permit, and the final inspection by EH is complete.

65.32 INSPECTION NO RELIEF FROM RESPONSIBILITY. The secondary system shall remain uncovered until inspected by EH. The contractor shall be available to discuss details of the installation. EH will inform the contractor of any concerns with the system installation, and how to remedy them. The purpose of this inspection is to collect field data in order to document the system's description and location, to determine if the permit intent was accomplished, and to assess the workmanship. The field data collected during the inspection documents the conditions at the time of the inspection, but does not necessarily sanction a system as being in compliance with the requirements of 567 IAC 69. This ordinance shall not be construed to relieve from or lessen the responsibilities of any person, partnership, or corporation owning, operating, or installing septic systems, construction, or equipment, for the damage to property or persons injured by any defect therein. Nor shall Story County or any agent thereof be deemed to assume any such liability by reason of the inspection authorized herein or the certificate of installation issued by the EH. It is the responsibility of the certified installer to ensure that all on-site wastewater treatment system installations are performed in accordance with the provisions of 567 IAC 69 and Story County Ordinance Chapter 65.

65.33 MINIMUM LEVEL OF SEPTIC SYSTEM MAINTENANCE REQUIRED.

1. The individual sewage treatment system and all components must be maintained in compliance with this chapter and manufacturer requirements.
2. Septic tanks and pump chambers shall be pumped every five years or more frequently if required by the system's manufacturer.

3. Septage shall be disposed of in accordance with state, federal, and local requirements.
4. The owner of a property with a septic system, or a person who is a licensed commercial septic tank cleaner as defined in Rule 567 IAC 68.2(455B) shall maintain the following records and submit them to EH:
 - a. Location of the serviced tank
 - b. Method of septage disposal
 - c. Volume of septage disposed
 - d. General condition of the system (good, fair, poor)
5. EH shall develop a tracking system for the information above.

65.34 SYSTEMS THAT REQUIRE MAINTENANCE CONTRACTS. All owners of systems that require a maintenance contract as per 567 IAC 69, shall demonstrate to EH that the contract is current by submitting a copy of the contract to EH during the month of January of every year the system is in use, or having the maintenance contractor submit a list of current contracts during the month of January of every year the system is in use.

65.35 NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

GENERAL PERMIT #4. Any septic system that discharges onsite treated wastewater to a subsurface drain tile or could potentially reach surface water, must be monitored to ensure that it meets IDNR water quality standards. A Notice of Intent (NOI) form must be filed with the Wastewater Operation Section of the IDNR prior to the installation of the discharging onsite system. Once the form is received, the IDNR and EH determine if an NPDES general shall be required, based on the discharge's potential impact on water quality. IDNR is responsible for issuing a General Permit #4 to the system owner. The system owner is responsible for meeting the requirements of the permit.

65.36 EFFLUENT SAMPLING BY QUALIFIED SAMPLERS. The owner is responsible for having the private sewage disposal system sampled to ensure compliance. Only a "qualified sampler" shall conduct effluent sampling for compliance monitoring. "Qualified samplers" include the following:

1. EH personnel - fees for sampling conducted by EH shall be set by the Board of Health
2. An Iowa-certified wastewater treatment operator
3. An individual who has received training approved by the EH or IDNR
4. IDNR certified Time of Transfer inspectors
5. Maintenance contractors for discharging systems
6. CIOWTS contractors

65.37 EFFLUENT QUALITY LIMITS. Effluent samples shall be at or below the following:

Effluents Discharging To	E. coli cfu/100 mL	CBOD5 mg/L	TSS mg/L
Class "A1", "A3" waters	235	25	25
Class "A2" waters	2880	25	25
Ground surface	2880	25	25

65.38 SAMPLING LOCATION AND PROCEDURE. Effluent samples must be collected from an approved sampling port (accessed from ground surface) or from the end of the discharge pipe (if accessible) following the final treatment component of the system. If the system is not discharging at time of sampling, but appears to have been discharging, water must be added to the system through the building plumbing to create a discharge. If there is no evidence of a discharge from the system within the previous six months, only a physical inspection of the discharge area for any signs of surfacing effluent is required. Sample results shall be sent to EH. If no sample was collected, a brief inspection report must be submitted to EH.

65.39 IOWA CERTIFIED LAB. Effluent samples must be analyzed by an Iowa certified lab. A list of certified laboratories is available from the State Hygienic Lab. Sample containers provided by the laboratory must be used for the sample. The sample must be collected from a free-falling effluent pipe or sampling port where the effluent is flowing. Samples shall not be taken from a pooled location. Sample submission shall follow the lab's instruction.

65.40 DUTY TO MITIGATE. If a sample does not meet the effluent limits, the owner must work with EH to investigate the potential causes of the problem, and a repeat sample must be taken within 30 days for the specific parameter that was out of compliance. If three consecutive samples do not meet the effluent limits, the owner must take corrective actions to bring the system into compliance.

65.41 VARIANCES. Variances to this ordinance may be granted by EH provided sufficient information is submitted to substantiate the need for and propriety of such action. Requests for variances and justification shall be in writing filed with EH. Permits will list any approved variances.

65.42 SEVERABILITY CLAUSE. If any section, provision, or part of this ordinance shall be adjudged invalid or unconstitutional, such adjudication shall not affect the validity of the ordinance as a whole or any section, provision, or part thereof not adjudged invalid or unconstitutional.

65.43 EFFECTIVE DATE OF STORY COUNTY ORDINANCE CHAPTER 65.

These regulations go into effect upon adoption by the Story County Board of Supervisors.

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