

SEPTIC PERMIT INSTRUCTIONS
Mills County Public Health
212 Independence, Glenwood, Iowa 51534
(712) 527-9699

INCOMPLETE APPLICATIONS WILL NOT BE PROCESSED

PERMITS BEING APPLIED FOR

This permit application packet is for new septic systems or rehabilitation of existing septic systems only. Please be advised to apply for a entrance and 911-address permit with the County Engineer's Office. **PERMITS ARE VALID FOR ONE YEAR FROM APPROVAL DATE AND FEES ARE NON-REFUNDABLE.**

1. **Owner, Telephone, Address:** Name, current telephone number (number where owner can be reached between 8 am & 4:30 pm) and current mailing address of the owner of the property.
2. **Job Site 911-Address:** Address of the property where the proposed work is going to take place. If this address is the same as the current mailing address check the box marked "Same as above". *****IF THIS IS A NEW CONSTRUCTION YOU MUST APPLY FOR A 911 ADDRESS WITH THE COUNTY ENGINEER'S OFFICE BEFORE YOUR SEPTIC PERMIT CAN BE PROCESSED.**
3. **Civil Township:** Name of the township where the subject property is located. Example: Oak, Glenwood, Platteville, Lyons, etc.
4. **Legal Description:** Legal description of the subject property, which can be taken from your tax statement or the deed for the property. Check the box "Per Attachment" and include a copy of the deed with the application, if the legal description is lengthy.
5. **Installer, Installer's Registration #:** Name of the commercial installer. You may choose your own installer, a list of those active in Mills County over the last year is available.
6. **Floodplain Data:** This data can be furnished to you by the Engineer's Office. If your property is located in a Zone A and this septic permit is intended to serve a new building or an addition to an existing building, you will be required to also obtain a Floodplain Development Permit.
7. **System to Serve:** Check the appropriate box.
8. **Structure Type:** If the system is to serve a structure other than a single-family dwelling, contact Mills County Public Health to determine what data will be needed to determine the size of system.
9. **Water Supply:** Complete as indicated. Note that "Public Water Well" is defined as "A system for the provisions to the public of piped water for human consumption, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year." If your property is next to a restaurant, bar, church or other similar public place it is your responsibility to confirm if the well is public. You can contact the Iowa Department of Natural Resources for information at (712) 243-1934.
10. **Percolation Rate:** The results of the percolation test can be returned to Mills County Public Health for calculation. Refer to procedure on "How to Perform Percolation Test", Page 4, which explains how the test is performed and who should perform it.
11. **Fixtures:** Check the appropriate box for any of the fixtures that exist in the structure or are being planned for the structure.
12. **Septic System Design:** The minimum standard for a septic tank is 2 compartments. If you have a one compartment tank, a second tank will have to be installed. If the first tank is to be replaced or it is a new installation, a two-compartment tank is required. The minimum tank capacity are as follows:

Up to and including 3-bedroom homes	1,250 gallons	5-bedroom homes	1,750 gallons
4-bedroom homes	1,500 gallons	6-bedroom homes	2,000 gallons

13. **Absorption System Design:** Check the appropriate box for the type of system that you propose to construct. The "Minimum" for an absorption system is as follows:

SOIL ABSORPTION SYSTEM SIZING CHART (Lineal Feet of Absorption Trench)

MPI	Soil Load Rate	2 Bedroom 300 gallons/day ⁽¹⁾	3 Bedroom 450 gallons/day	4 Bedroom 500 gallons/day	5 Bedroom 750 gallons/day	6 Bedroom 900 gallons/day
1-5	1.2	125'	188'	250'	313'	375'
6-10	0.8-0.6	188'-250'	281'-375'	375'-500'	469'-625'	562'-750'
11-29	0.6-0.5	250'-300'	375'-450'	500'-600'	625'-750'	750'-900'
30-45	0.5-0.4	300'-375'	450'-562'	600'-750'	750'-938'	900**-1125**
46-60	0.4-0.2	375'-750'	562'-1125**	750'-1500**	938**-1875**	1125**-2250**

***Requires a pressure distribution (pump)**

14. **Septic Permit Attachments:**
 - A. Site Plan: See example. On a separate piece of paper, you will need to draw a site plan (with dimensions) like the example.
 - B. Percolation Test Results: The percolation test report must be signed.
 - C. Filing Fees:
Septic Permit Fee: **\$150** for tank only, **\$500** for complete system, which covers the septic permit, one pre-construction inspection & one post-construction inspection. Multiple post-construction inspection trips are discouraged, as are weekend and afterhours inspections. **FEES ARE NON-REFUNDABLE.**
 - D. Site Plan Checklist: Complete the attached site plan check list and make sure that the information requested is shown on your site plan, unless you have marked "None Exist on Site" box.
15. **Property Owner's Signature:** Sign and date the application.
16. **Commercial Septic Installer's Certification of Site Evaluation:** Each major contractor (building contractor, commercial septic installer, and well driller) is required to conduct a site evaluation of the property prior to the applications being submitted. Those contractors must sign and acknowledge that they have viewed the site and agree with the proposed site development plan. If in the development of the site, contractors are changed, you will need to notify this office and that contractor will need to likewise acknowledge that they agree with the proposed site development plan. Any and all changes to the site development plan after permits are issued shall be given in writing to this office. In conducting the site evaluation for a septic permit, consideration shall be given, but not limited to, the impact of the following: topography, drainage ways, terraces, floodplain, percent of land slope, location of property lines, location of easements, buried utilities, existing and proposed tile lines, existing, proposed profile and soil factors determined from a soil analysis, percolation tests and soil survey maps if available. **YOUR COMMERCIAL INSTALLER MUST SIGN THIS SECTION.**

Mills County, Iowa, Application for Septic Permit

1. Property Owner				Telephone:	
Address					
2. Job Site 911 - Address	<input type="checkbox"/> Same as above #1				
3. Civil Township					
4. Legal Description	<input type="checkbox"/> Attached				
5. Installer				Registration Number	
6. Floodplain Data	Flood Zone: <input type="checkbox"/> Zone A <input type="checkbox"/> Zone B <input type="checkbox"/> Zone C				
7. System to Serve	<input type="checkbox"/> New Structure <input type="checkbox"/> Existing Structure				
8. Structure Type	<input type="checkbox"/> Single-family dwelling with _____ bedrooms <input type="checkbox"/> Other _____, which has an estimated utilization of _____ gallons per day				
9. Water Supply	<input type="checkbox"/> Private Water Well <input type="checkbox"/> Public Water System <input type="checkbox"/> Public Water Well <i>See instructions for definition of "Public Water Well"</i>				
10. Percolation Rate	M.P.I.	<input type="checkbox"/> Check here if this is a TANK ONLY permit			
11. Fixtures	<input type="checkbox"/> Water Softener	<input type="checkbox"/> Garbage Disposal	<input type="checkbox"/> Whirlpool Bath	<input type="checkbox"/> Other High-Volume Water Fixture	
12. Septic System Design	Minimum	Existing	Proposed		
	A. Gallons				
	B. Compartments	2			
13. Absorption System Design	<input type="checkbox"/> Lateral/Gravelless/Chamber				
	<input type="checkbox"/> Lateral with gravel				
Pipe Type	<input type="checkbox"/> 4" perforated <input type="checkbox"/> Concrete <input type="checkbox"/> 8" gravelless <input type="checkbox"/> 10" gravelless <input type="checkbox"/> <24" Chamber <input type="checkbox"/> >33" Chamber				
A. Total Length					
B. # of Lines					
C. Footage per Line					
D. Trench Width					
E. Rock Under Pipe	<input type="checkbox"/> 6" <input type="checkbox"/> 12" <input type="checkbox"/> 18" <input type="checkbox"/> 24"	**See note on rock use	<input type="checkbox"/> 6" <input type="checkbox"/> 12" <input type="checkbox"/> 18" <input type="checkbox"/> 24"		
14. Attached to this Application:	<input type="checkbox"/> Site Plan	<input type="checkbox"/> Filing Fee	<input type="checkbox"/> Percolation Test Results	<input type="checkbox"/> Site Plan Check List	

***Use of rock depths greater than 6" require pre-approval from Mills County Public Health*

Checks are to be made payable to "Mills County Public Health".

COMMERCIAL SEPTIC INSTALLER'S CERTIFICATION OF SITE EVALUATION

I CERTIFY THAT AS THE COMMERCIAL SEPTIC INSTALLER TO BE INVOLVED WITH THE CONSTRUCTION OF THE SEPTIC SYSTEM SHOWN ON THE ATTACHED SITE, THAT I HAVE SHARED THIS DOCUMENT WITH THE HOMEOWNER, THAT I HAVE PERSONALLY BEEN TO THE SITE, REVIEWED THE PROPOSED DEVELOPMENT OF THIS SITE AND ACKNOWLEDGED THAT THE PROPOSED CONSTRUCTION OF THE SEPTIC SYSTEM WILL BE ABLE TO BE ACCOMPLISHED IN ACCORDANCE WITH THE ONSITE WASTE WATER TREATMENT AND DISPOSAL SYSTEM POLICIES OF MILLS COUNTY AND APPLICABLE STATE OF IOWA CODES.

PERMITS ARE VALID FOR ONE YEAR FROM APPROVAL DATE AND FEES ARE NON-REFUNDABLE.

Signature of Commercial Septic Installer: _____ Date: _____
 Type or Print Name: _____

PROPERTY OWNER'S SIGNATURE

I CERTIFY THAT AS THE PROPERTY OWNER OF THE ABOVE DESCRIBED PROPERTY THAT THE INFORMATION CONTAINED IN THIS APPLICATION AND THE ACCOMPANYING DOCUMENTATION IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND THAT ALL WORK WILL BE COMPLETED IN ACCORDANCE WITH THE MILLS COUNTY POLICIES AND APPLICABLE STATE OF IOWA CODES.

PERMITS ARE VALID FOR ONE YEAR FROM APPROVAL DATE AND FEES ARE NON-REFUNDABLE.

Signature of Property Owner: _____ Date: _____
 Type or Print Name: _____

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Approved by: _____ Date: _____

County Official

Scaled Drawings for Septic Permits shall show the following

Complete this form in addition to application and site plan

- Shape and dimensions of the property
- Location and size of existing structures
- Location and size of proposed structures
- Location of well and septic corridor boundaries for those subdivisions where they have been established at the time of final plat
- Location of percolation test holes & borehole
- Location and size of tank and absorption area

Private Water Well

- Exists or is proposed on-site (shown on map)
- None exist or are proposed on-site
- Exists within 100' of property boundaries (shown on map)
- None exist within 100' of property boundaries

Public Water Well

- Exists or is proposed on-site (shown on map)
- None exist or are proposed on-site
- Exists within 400' of property boundaries (shown on map)
- None exist within 400' of property boundaries

Groundwater Heat Pump Borehole

- Exists or is proposed on-site (shown on map)
- None exist or are proposed on-site
- Exists within 100' of property boundaries (shown on map)
- None exist within 100' of property boundaries

Lake or Reservoir

- Exists or is proposed on-site (shown on map)
- None exist or are proposed on-site
- Exists within 100' of property boundaries (shown on map)
- None exist within 100' of property boundaries

Stream or Pond

- Exists or is proposed on-site (shown on map)
- None exist or are proposed on-site
- Exists within 25' of property boundaries (shown on map)
- None exist within 25' of property boundaries

Drainage Ditch

- Exists or is proposed on-site (shown on map)
- None exist or are proposed on-site
- Exists within 10' of property boundaries (shown on map)
- None exist within 10' of property boundaries

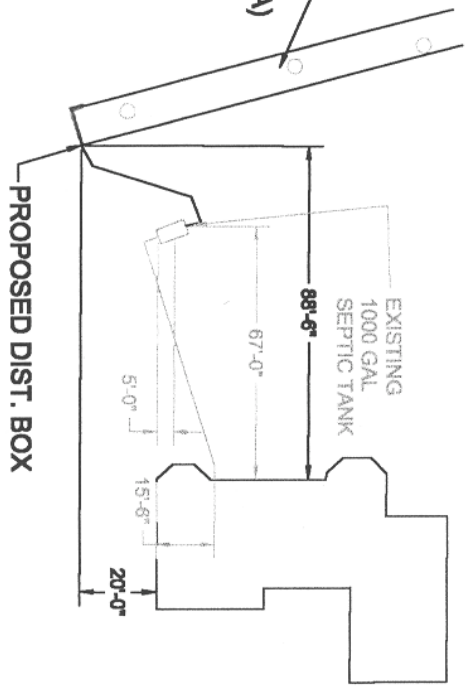
Public Water Supply Line

- Exists or is proposed on-site (shown on map)
- None exist or are proposed on-site
- Exists within 10' of property boundaries (shown on map)
- None exist within 10' of property boundaries

Other types of Subsurface Treatment Systems

- Exists or is proposed on-site (shown on map)
- None exist or are proposed on-site
- Exists within 10' of property boundaries (shown on map)
- None exist within 10' of property boundaries

PROPOSED
LATERAL FIELD
(2 RUNS @ 100' EA)



EXISTING WELL
203' FROM TANK
234' FROM LATERALS



BDC Technical Services

SITE PLAN
65623 235TH STREET

HOW FAR AWAY DO MY SEPTIC TANK AND LATERALS HAVE TO BE FROM PHYSICAL FEATURES ON MY PROPERTY AND THE PROPERTIES NEAR MINE?

<u>SEPARATION DISTANCES TO</u>	<u>MINIMUM-TANK</u>	<u>MINIMUM-LATERALS</u>
Private water supply well	50'	100'
Deep Public water supply well	200'	200'
Shallow Public water supply well	400'	400'
Groundwater heat pump borehole	50'	100'
Lake or reservoir	50'	100'
Stream or pond	25'	25'
Edge of drainage ditch	10'	10'
Dwelling or other structure	10'	10'
Property lines	10'	10'
Other type of subsurface treatment system	5'	10'
Water lines under pressure	10'	10'
Suction water line	50'	100'
Foundation drain or subsurface tiles	10'	10'

WHEN CAN I EXPECT TO RECEIVE MY PERMIT?

Once the application has been properly filed with Mills County Public Health at 212 Independence, Glenwood, Iowa, it will be reviewed by the Environmental Specialist. As part of the review a pre-construction inspection will be conducted at the site. If everything is found to be in order and to comply with regulations of the appropriate ordinance, a permit will be issued within seven (7) working days.

WHAT OTHER PERMITS DO I NEED?

Septic and well permits are obtained at the Mills County Public Health office at 212 Independence, Glenwood, Iowa. Entrance and Building Permits are obtained at the Mills County Engineer's Office and the Building and Safety Department at 403 Railroad Ave., Glenwood, Iowa. For entrances along a state highway, contact the Iowa Department of Transportation. (712) 366-0436.

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NOTE: The data contained in this document is for reference purposes only. For the specific regulations, you should refer to the Mills County, Iowa, code. Data contained in this document is subject to change without further notice to recipients of this document.

HOW TO PERFORM A PERCOLATION TEST

- The percolation test must be taken in the area where the absorption system will be constructed.
- If your property consists of 5 acres or less, this percolation test must be performed by a registered professional engineer.
- If your property consists of more than 5 acres, you may perform the percolation test yourself.

PREPARATION OF TEST HOLES

1. Dig a minimum of 3 test holes, 4" to 12" in diameter and the same depth as the proposed absorption trenches (not to exceed 36" in depth). The test holes should be distributed evenly over the proposed absorption area.
2. Scratch or roughen sides and bottom of each test hole. Remove all loose dirt from each hole.
3. Place 2" of rock in the bottom of each test hole.

PRESOAK

1. Pour 12" of clean water into each test hole and maintain the 12" of water for at least 4 hours, preferably overnight if clay soils are present.
2. If after filling the hole twice with 12" of water, all 12" of water seeps away in less than 10 minutes, no further presoaking is needed and you can proceed with the percolation test immediately.
3. **WAIT AT LEAST 4 HOURS, NOT MORE THAN 24 HOURS, FROM THE TIME YOU START THE PRESOAK TO START THE PERCOLATION TEST.**

PERCOLATION TEST

1. Remove soils that may have sloughed into the hole during the presoak.
2. Begin the test for each test hole at five (5) minute intervals.
3. Fill or adjust the depth of the water level in each test hole to approximately 6" above the gravel.
4. Record the time that the water is poured into the test hole.
5. Wait 30 minutes. Record the time and height of water left in the hole, to within 1/8 of an inch.
6. Refill the test hole to the previous 6" mark, record the time, wait 30 minutes, record the time and amount of water left in the hole. ****Repeat step #6 until water levels on 2 successive intervals are within 1/8 of an inch of each other. At least 3 measurements shall be made.**

IF ALL OF THE FIRST 6" OF WATER IS GONE IN LESS THAN 30 MINUTES, the procedure listed above in #6 is followed, with the exception that you only need to wait 10 minutes' in-between readings for a 1-hour period (entire test time approximately 1 1/2 hours).

CALCULATION OF PERCOLATION RATE

1. Divide the time interval by the drop in water level to determine the percolation rate in minutes per inch (MPI).
2. Average the last percolation rate for each of the test holes to obtain the site percolation rate. **IF THE PERCOLATION RATES VARY MORE THAN 20 MPI, THEN THE PERCOLATION RATE IS NOT AVERAGED AND THE HIGHEST PERCOLATION RATE IS USED TO DESIGN THE SYSTEM.**

BORE HOLE

1. Dig a test hole 6' in depth or to rock or water, whichever occurs first. This hole shall be dug in the center of the area where the system is to be constructed. This test hole may be augured or may be made with a soil probe.

Percolation Test Hole # 1					Percolation Test Hole # 2					Percolation Test Hole # 3				
Time of Day	Elapsed Time in Minutes	Water Level in Inches	Drop in Water Level in Inches	Perc. Rate in M.P.I.	Time of Day	Elapsed Time in Minutes	Water Level in Inches	Drop in Water Level in Inches	Perc. Rate in M.P.I.	Time of Day	Elapsed Time in Minutes	Water Level in Inches	Drop in Water Level in Inches	Perc. Rate in M.P.I.
12:15		6 1/8			12:20		6			12:25		6 1/2		
12:45	30	4	2 1/8	14.12	12:50	30	4 1/16	1 13/16	15.48	12:55	30	3	3 1/2	8.57
12:46		6 1/16			12:51		6			12:56		6		
1:16	30	4 1/16	2	15.00	1:21	30	5	1 1/2	20.00	1:26	30	2 3/4	3 1/4	9.23
1:17		6			1:22		6 1/2			1:27		6 1/8		
1:47	30	4 1/4	1 3/4	17.14	1:52	30	5	1 1/2	20.00	1:57	30	3 1/8	3	10.00
1:48		6 1/8			1:53		6 1/8			1:58		6		
2:18	30	4 1/2	1 5/8	18.46	2:23	30	4 3/4	1 3/8	21.82	2:28	30	3 3/8	2 5/8	11.43
2:19		6			2:24		6			2:29		6 1/2		
2:49	30	4 7/16	1 9/16	19.20	2:54	30	4 7/8	1 1/8	26.67	2:59	30	5	1 1/2	12.00
2:50		6 1/8			2:55		6 1/8			3:00		6		
3:20	30	4 9/16	1 9/16	19.20	3:25	30	5 1/8	1	30.00	3:30	30	3 1/2	2 1/2	12.00
3:21		6			3:26		6			3:31		6		
3:51	30	4 1/2	1 1/2	20.00	3:56	30	5 1/16	15/16	32.00	4:01	30	3 15/16	2 1/16	14.55
3:52		6			3:57		6 1/16			4:02		6		
4:22	30	4 1/2	1 1/2	20.00	4:27	30	5 1/4	15/16	32.00	4:32	30	3 15/16	2 1/16	14.55
Percolation Rate for Test Hole # 1: 20.00					Percolation Rate for Test Hole # 2: 32.00					Percolation Rate for Test Hole # 3: 14.55				

Presoak Data

Percolation Test Data

Bore Hole Data

Property Owner Data

Date:	Started	Ended	Test hole	Date of Test: 4/16/2002			<input type="checkbox"/> Water encountered at ___feet.	Name: John Smith Address: 59123 Levi Rd. Glenwood, IA Section_19____ Township____72 N____ Range_43____ Subdivision_____Lot # ____
	4/15/2002	4/15/2002		#1	#2	#3		
Time	4:00 pm	8:15 pm	Diameter	6"	6"	6.5"	<input checked="" type="checkbox"/> No rock or water encountered at 6".	
	Total Presoak Hours		Depth	36"	3.5"	35"		
		4.25 Hours	M.P.I.	20.00	32.00	14.55		
<input type="checkbox"/> Hole kept completely full			Average Percolation Rate	22.18 M.P.I.				
<input type="checkbox"/> 12" Maintained								
<input type="checkbox"/> 12" Sept away in <10 minutes								

TEST CERTIFICATION

I HEREBY CERTIFY THAT THE DATA CONTAINED IN THIS PERCOLATION TEST REPORT IS TRUE TAND CORRECT AND THAT THE TESTS WERE PERFORMED PURSUANT TO MILLS COUNTY, IOWA, ONSITE WASTEWATER TREATMENT AND DISPOSAL SYSTEM ORDINANCE.

Signature of Test Conductor _____ Iowa P.E. Registration # (Required for parcels less than 5 acres) _____ Date _____

Percolation Test Hole # 1					Percolation Test Hole # 2					Percolation Test Hole # 3				
Time of Day	Elapsed Time in Minutes	Water Level in Inches	Drop in Water Level in Inches	Perc. Rate in M.P.I.	Time of Day	Elapsed Time in Minutes	Water Level in Inches	Drop in Water Level in Inches	Perc. Rate in M.P.I.	Time of Day	Elapsed Time in Minutes	Water Level in Inches	Drop in Water Level in Inches	Perc. Rate in M.P.I.
Percolation Rate for Test Hole # 1: _____					Percolation Rate for Test Hole # 2: _____					Percolation Rate for Test Hole # 3: _____				

Presoak Data

Started	Ended
Date: _____	_____
Time _____	_____
Total Presoak Hours _____	
<input type="checkbox"/> Hole kept completely full	
<input type="checkbox"/> 12" Maintained	
<input type="checkbox"/> 12" Sept away in <10 minutes	

Percolation Test Data

Date of Test:	_____
Test hole	#1 #2 #3
Diameter	_____
Depth	_____
M.P.I.	_____
Average Percolation Rate	_____

Bore Hole Data

Water encountered at _____ feet.
 Rock encountered at _____ feet.
 No rock or water encountered at 6'.

Property Owner Data

Name: _____
Address: _____
Section _____
Township _____
Range _____
Subdivision _____ Lot # _____

TEST CERTIFICATION

I HEREBY CERTIFY THAT THE DATA CONTAINED IN THIS PERCOLATION TEST REPORT IS TRUE TAND CORRECT AND THAT THE TESTS WERE PERFORMED PURSUANT TO MILLS COUNTY, IOWA, ONSITE WASTEWATER TREATMENT AND DISPOSAL SYSTEM ORDINANCE.

Signature of Test Conductor _____ Iowa P.E. Registration # (Required for parcels less than 5 acres) _____ Date _____