

**CHEYENNE-  
LARAMIE COUNTY  
HEALTH  
DEPARTMENT**

**SMALL WASTEWATER FACILITY APPLICATION PACKET**

**A PERCOLATION TEST AND/OR AN APPLICATION ALONG WITH AN ADDRESS MUST BE COMPLETED AND SUBMITTED TO THE DIVISION OF ENVIRONMENTAL HEALTH BEFORE A PERMIT TO INSTALL OR MODIFY A SMALL WASTEWATER FACILITY (SEPTIC SYSTEM) CAN BE ISSUED IN LARAMIE COUNTY.**

Page one (1) of the packet is the application for a permit to construct or modify a Small Wastewater Facility.

- a. The top portion is for the landowner(s) legal description of the property on which the Small Wastewater Facility is being considered and **MUST BE COMPLETELY FILLED OUT**.
- b. The middle portion is for recording "Percolation Test Readings" and for the signature of the person running the test.
- c. The lower section of the application is for the property owner's signature and date of the property owner.

The person running the percolation test and the property owner must sign the application. The completed application is to be returned to Environmental Health with a **THREE HUNDRED (\$300.00) DOLLAR INSPECTION FEE FOR EACH SMALL WASTEWATER SYSTEM.** All new construction requires an approved zoning certificate or official address assignment from the City Building Department. The owner/legal representative will be notified to appear at Environmental Health to sign the permit. \*\*\*

**\*\*\*STATE LAW REQUIRES that the signature of the property owner appear on the permit. \*\*\***

Page two (2) shows an example site location map that must be included with the perc application.

Page three (3) is the Percolation Test Guidelines, which explains the procedures for running a percolation test.

- a) A perc test is used to determine the ability of soils to support a Small Wastewater Facility, and to size the facility.
- b) Anyone can run the test. Instructions are available.
- c) An onsite evaluation of the property, including the test holes, will be conducted by an Environmental Health Inspector.

Page four (4) is the Question & Answer brochure for obtaining an address from the City Building Department and a list of the contractors/installers licensed through Environmental Health.

**\*\*\*ALL SEPTIC SYSTEMS MUST BE INSTALLED BY A LARAMIE COUNTY HEALTH DEPARTMENT APPROVED SMALL WASTEWATER CONTRACTOR/INSTALLER, \*\*\***

UNLESS OTHER ARRANGEMENTS HAVE BEEN APPROVED THROUGH ENVIRONMENTAL HEALTH.

**Submit to Environmental Health Department:**

- **Small Wastewater Facility Application.**
- **Site location Map.**
- **Inspection Fee of \$300.00.**
- **Provide Proof of Address Assignment.**

**APPLICATION FOR SMALL WASTEWATER SYSTEM PERMIT**

ENVIRONMENTAL HEALTH  
100 CENTRAL AVE. RM 261  
CHEYENNE, WY 82007  
(307) 633 – 4090 FAX: (307) 633 – 4038

DATE SUBMITTED: \_\_\_/\_\_\_/\_\_\_

**INSPECTION FEE \$300.00** (*Inspection Fee Must Accompany This Application*) **PARTIAL INSPECTION FEE \$50.00** per trip.  
Make Checks Payable to: **ENVIRONMENTAL HEALTH. PLEASE FILL OUT FORM COMPLETELY!**

LANDOWNER: \_\_\_\_\_ PHONE:(CELL/ HM) \_\_\_\_\_ (WK) \_\_\_\_\_

MAILING ADDRESS: \_\_\_\_\_ CITY: \_\_\_\_\_ ST.: \_\_\_\_\_ ZIP: \_\_\_\_\_

PROPERTY ADDRESS: \_\_\_\_\_

**MANDATORY BEFORE PERMIT WILL BE WRITTEN**

RANGE: \_\_\_\_\_ TOWNSHIP: \_\_\_\_\_ SECTION: \_\_\_\_\_ SUBDIVISION: \_\_\_\_\_  
LOT/TR: \_\_\_\_\_ BLOCK: \_\_\_\_\_

PROPOSED NUMBER OF BEDROOMS: \_\_\_\_\_ BASEMENT: \_\_\_\_\_ Y \_\_\_\_\_ N  
ACREAGE: \_\_\_\_\_ DIMENSIONS: \_\_\_\_\_ X \_\_\_\_\_ PREVIOUSLY PERMITTED: \_\_\_ YES \_\_\_ NO

**IS THIS TO BE A HOMEOWNER INSTALL?** \_\_\_\_\_ YES \_\_\_\_\_ NO  
IF NO, WHO WILL BE THE LICENSED SYSTEM INSTALLER: \_\_\_\_\_

PERC HOLE DEPTH: \_\_\_\_\_ (Minimum 3' - Maximum 7' - SEE INSTRUCTIONS) BUILDING DRAIN DEPTH: \_\_\_\_\_  
DATE TEST RUN: \_\_\_/\_\_\_/\_\_\_ ROCK OR CHAMBER SYSTEM \_\_\_\_\_

**READINGS** →

		1	2	3	4	5	6*	7	8**
<b>H O L E S</b>	#1								
	#2								
	#3								
	#4								
	#5								
	#6								

**Inspector Notes:**

TIME INTERVAL: (CHECK ONE) \*10 MINUTES/6 READINGS \_\_\_\_\_ \*\*30 MINUTES/8 READINGS \_\_\_\_\_

SIGNATURE OF PERSON RUNNING PERC TEST: \_\_\_\_\_  
PLEASE PRINT AND SIGN

**PLEASE ATTACH ON A SEPARATE SHEET OF PAPER:**

- **SKETCH** home, perc hole location, well, septic tank, drainfield, garage, driveway, easements and drainage ways. Where possible, indicate soil type in drainfield area (perc site). Indicate NORTH. Include location of replacement field.
- **INDICATE ALL WELL LOCATIONS ON ADJACENT PROPERTY(ies).** (All wells shall be at least 50' from septic tank and at least 100' from drainfield. Well to drainfield distance may be greater in some subdivisions).
- **DIRECTIONS & DISTANCES TO PROPERTY.** BE SURE PERC HOLES ARE OPEN AND MARKED.

**I, THE UNDERSIGNED LANDOWNER, CERTIFY THAT THE ATTACHED SKETCH IS AN ACCURATE REPRESENTATION OF MY PROPOSED HOMESITE:**

LANDOWNER NAME: PRINT \_\_\_\_\_

SIGN \_\_\_\_\_

DATE: \_\_\_\_\_

## PERC HOLE READINGS EXAMPLE ONLY

(REFER TO GUIDELINES FOR DETAILS)

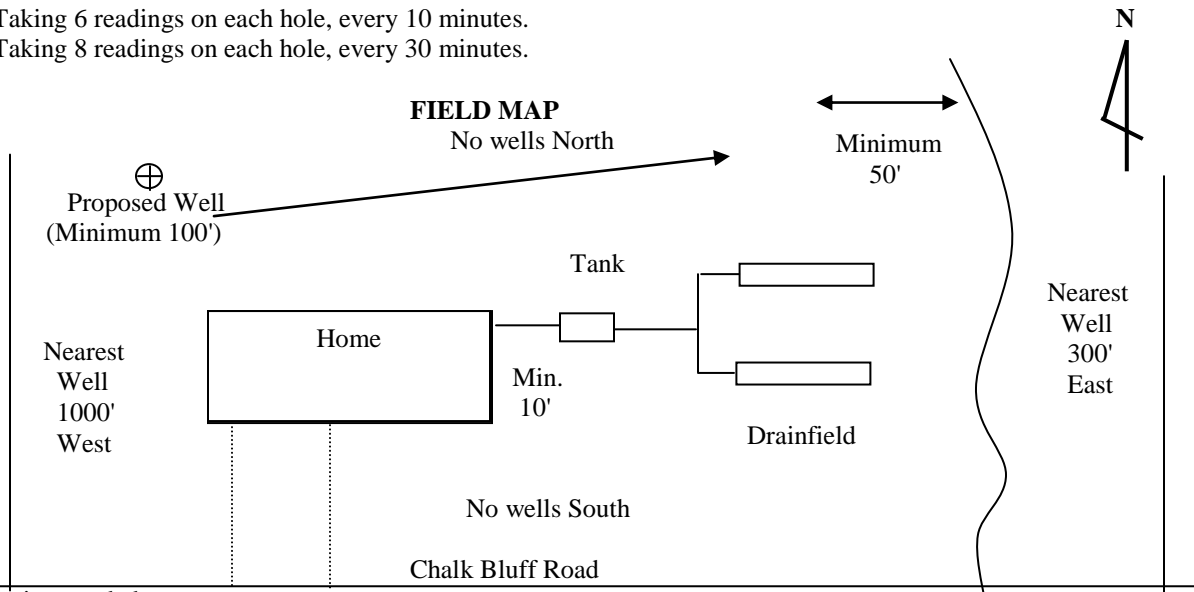
READINGS SHOULD GO HORIZONTALLY

	1	2	3	4	5	*6	7	**8
#1 HOLE	8	7.5	7	6	4	4		
#2 HOLE	7	6.5	6.5	5.5	5	5		
#3 HOLE	7	6.5	6	5	4	4		
#4 HOLE	8	7.5	7.5	6	5	4.5		
#5 HOLE	7	6	6	5.5	5	5		
#6 HOLE	8	7.5	7.5	6	5	5		

1. Perc holes should be completely filled with water the night before test is run to saturate the holes.
2. Create a fixed measuring line in each hole.
3. Fill each hole with water to the fill line.
4. If running 30 min. test (Example): - Fill holes @ 8:00 a.m. & refill every 1/2 hour to measuring line.  
 - Take 1<sup>st</sup> reading @ 8:30 a.m. on each hole & read every 1/2 hour thereafter, until all 8 readings are completed.

\*6 - Taking 6 readings on each hole, every 10 minutes.

\*\*8 - Taking 8 readings on each hole, every 30 minutes.



Information needed on map:

1. Boundary Roads
2. North Direction
3. Location of:
  - Driveway
  - Well
  - Tank
  - Perc Holes
  - Drainage Easements
  - Drainfield

**SITE MAP**  
**EXAMPLE ONLY**

## PERCOLATION TEST GUIDELINES

### SITE SELECTION FOR SEPTIC TANK ABSORPTION FIELD (PERCOLATION TEST HOLE SITE SELECTION).

BEFORE YOU PLAN YOUR SEWAGE DISPOSAL SYSTEM, BECOME FAMILIAR WITH THE HEALTH REGULATIONS IN THE COMMUNITY, THE PERMIT, INSPECTION REQUIREMENTS AND THE PENALTIES THAT MAY BE IMPOSED FOR VIOLATIONS. IN SELECTING A SITE FOR THE ABSORPTION FIELD (PERCOLATION TEST HOLE SITES), KEEP IN MIND THE FOLLOWING:

- 1) Soil permeability should be moderate to rapid and the soil percolation rate should be at least one (1) inch per hour. This will be determined by the percolation test which will be run.
- 2) Groundwater level, during the wettest season, shall be at least four (4) feet below the bottom of the trenches in a subsurface tile (plastic pipe) absorption field. That is eight (8) feet minimum or more from ground surface to the water table, or seasonally high groundwater mark.
- 3) Rock formations or other impervious layers shall be more than four (4) feet below the bottom of the trenches in a subsurface tile (plastic pipe) absorption field. That is eight (8) feet minimum or more from ground surface to the impervious layer.
- 4) Trenches and seepage beds are difficult to lay out and construct on slopes steeper than 15 percent. If steep, shallow soils that are underlain by rock or the impervious materials are used as absorption fields, the septic tank effluent is likely to seep to the surface.
- 5) Do not select a site for an absorption field that is within fifty (50) feet of a stream or other body of water or drainage way. **Never** install a sewage system on a flood plain that may be subject to flooding. Wells and springs should be located up slope from planned sewage disposal systems and at a distance of at least 100 feet from proposed leach fields (i.e. trench or seepage bed). Fields should be constructed to provide sufficient land area for entire new absorption system if needed.

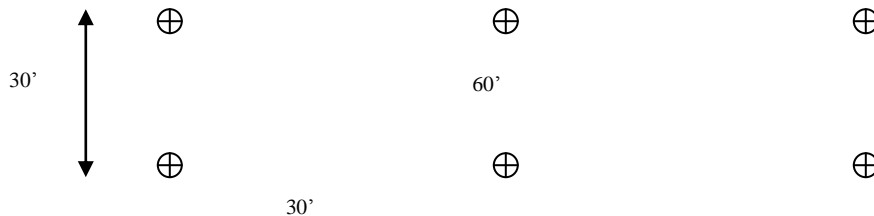
### PROCEDURE:

#### 1) NUMBER AND LOCATION OF TEST HOLES:

Six (6) test holes shall be dug in the proposed absorption field according to the following plan.

**NOTE: TEST HOLES ARE DUG TO THE BOTTOM OF THE DRAINFIELD TRENCH.**

One hole located in each corner of a 30 foot by 60 foot rectangle with one hole in the middle of each of the long sides. Typical layout for test holes will look like this:

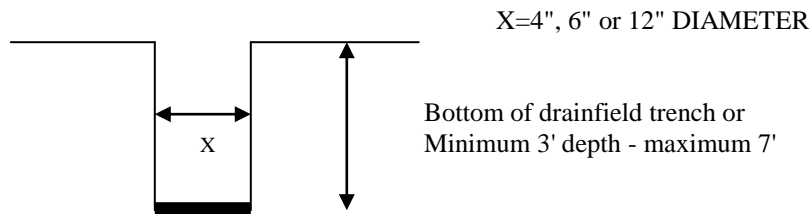


**NOTE: 6 HOLE AND 3 HOLE METHOD:** See step #5 & #6 before starting.

#### 2) TYPE OF TEST HOLE:

Dig or bore a hole with a diameter of between 4 and 12 inches and vertical depth to the bottom of the proposed drainfield. Deep drainfield, deep perc test:

SURFACE



**NOTE: REMOVE ALL DIRT AWAY FROM MOUTH OF HOLE.**

3) **PREPARATION OF TEST HOLE:**

Carefully scratch the bottom and sides of the hole with a sharp pointed instrument (knife blade) in order to remove any smeared soil surfaces and to provide a natural soil interface into which water may percolate. Remove all loose material from the hole and from around the surface and perimeter at the ground level. Add two (2) inches of coarse sand or fine gravel to protect the bottom of the hole from scouring and sediment.

4) **SATURATION AND SWELLING OF THE SOIL:**

It is important to distinguish between saturation and swelling. Saturation means that the void spaces between soil particles are full of water. This can be accomplished in a short period of time. Swelling is caused by intrusion of water into the individual soil particle. This is a slow process, especially in clay-type soil and is the reason for requiring a prolonged soaking period.

To conduct the test, carefully fill the hole completely full of water approximately 12 - 24 hours prior to the actual percolation. **NOTE: IN SOME SOILS IT IS NECESSARY TO REFILL THE HOLE BY SUPPLYING A SURPLUS RESERVOIR OF WATER TO KEEP THE WATER IN THE HOLE FOR AT LEAST 12 HOURS.** The procedure is to insure that the soil is given ample opportunity to swell and to approach the conditions it will be in during the wettest season of the year. Thus, the test will give comparable results in the same soil, whether made in a dry or wet season.

5) **PERCOLATION RATE MEASUREMENT:**

Percolation rate measurement shall be made on the day following the procedure described under item 4 above, by one of the following methods:

- A) **IF water remains in the test holes** after the overnight swelling period, adjust the depth to approximately 6 - 12 inches over the gravel or hole bottom. From a fixed reference point, measure the drop in water level every 30 minutes, for four hours in each hole - refilling each hole to the same (original) depth after recording the amount of drop.
- B) **If no water remains in the holes** after the overnight swelling period, add enough clear water to a depth of 6 - 12 inches over the gravel. From a fixed reference point, measure the drop in water level every 30 minutes for four (4) hours, in each hole - refilling each hole to the same (original) depth after recording the amount of drop. The drop that occurs during the final 30 minute period is used to calculate the percolation rate. The drop during prior periods provide information for possible modification of the procedure to suit local circumstances.
- C) In sandy soil (or other soils in which the first six (6) inches of water seeps away in less than 30 minutes, after the overnight swelling period, the time interval between measurements shall be taken as ten (10) minutes and the test run for one hour. Add 6 - 12 inches of water over the top of the gravel (in the hole bottom). From a fixed reference point measure the drop in water level every ten (10) minutes for one hour, in each hole - refilling each hole to the same (original) depth after recording the amount of drop. The drop that occurs during the final (10) minute period is used to calculate the perc rate.

6) **PERCOLATION TESTS MAY BE EITHER 6 HOLES OR 3 HOLES:**

- A) In the first case, the 6 hole results will be averaged to size the system.
- B) In the second case, the worst hole result will be used to size the system.

**IF YOU HAVE ANY QUESTIONS OR NEED CLARIFICATION CONCERNING  
THE ABOVE, PLEASE CALL THIS OFFICE.**