LOUISIANA DEPARTMENT OF TRANSPORTATION & DEVELOPMENT
WATER RESOURCES SECTION
P. O. BOX 94245 BATON ROUGE, LA 70804-9245
(225) 274-4121

GUIDE TO DOMESTIC WATER WELL DISINFECTION

(Recommended for 2" and 4" Wells and Their Associated Pressure Tanks, pipes, etc.)

RECOMMENDED QUANTITIES OF DISINFECTANT PER 100 FEET OF WATER-FILLED CASING FOR REQUIRED WATER WELL DISINFECTION (100mg/l Solution)

DISINFECTANT	WELL CASING DIAMETER (IN INCHES)	
	2	4
HTH (68%) - Dry	0.4 oz. OR 1T	1.4 oz. OR 3T
BLEACH (5.25%) - Liquid	4.0 oz. OR ½C	18 oz. OR 2¼C

LEGEND:

T = Tablespoon (heaping), by dry weight measure
1T = ½ ounce, by dry weight measure
C = Cups, liquid measure (1C = 8 fluid ounces)
HTH = Solid Calcium Hypochlorite (68% available chlorine)
BLEACH = Liquid household bleach unscented (sodium hypochlorite, 5.25% Chlorine)

To disinfect additional appurtenances such as pressure tanks, pipes, etc., add 4T of HTH or 3 Cups of household bleach, unscented, per 100 gallons of additional water to be disinfected.

The amount of disinfectant required is determined by the volume of water in the well plus associated appurtenances, such as a pressure tank, to be disinfected. The table above shows the amount to use for each 100 feet of water-filled casing, according to the casing diameter, plus the amount to add per 100 gallons of additional appurtenances. (See page 2 for disinfection procedures)

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WATER WELL DISINFECTION PROCEDURES

1. To determine the required amount of chlorine, multiply the amount of disinfectant (shown on the table) by the number of feet of water-filled casing divided by 100 and then add the required amount of disinfectant for each 100 gallons of volume of additional appurtenances (tank, piping, etc.). See examples shown below:

   Example 1: A well with a 2-inch diameter casing and a 40-gallon pressure tank requires ½ cup of household bleach per 100 feet of water-filled casing, plus 3 cups of household bleach per 100 gallons of pressure tank volume. If the water-filled casing is 120 feet deep, multiply ½ cup by 120 divided by 100 to get the required dosage to disinfect the well [½C x 120 ft. ÷ 100 ft. = 0.6 cups or 5 fluid ounces]. Multiply 3 cups by 40 divided by 100 to get the required dosage to disinfect the pressure tank [3C x 40 gal. ÷ 100 gal. = 1.2 cups or 1 cup 2 ounces]. Add the two for the total required disinfectant [5 ounces + 1 cup 2 ounces = 1 cup 7 ounces or approximately 2 cups] of household bleach (5.25% chlorine).

   Example 2: A well with a 2-inch diameter casing and a 20-gallon pressure tank requires 1 T of chlorine granules (HTH, 68% available chlorine) per 100 feet of water-filled casing, plus 4 T of chlorine granules (HTH, 68% available chlorine) per 100 gallons of pressure tank volume. If the water-filled casing is 450 feet deep, multiply 1 T by 450 divided by 100 to get the required dosage to disinfect the well [1T x 450 ft. ÷ 100 ft. = 4½ T]. Multiply 4 T by 20 divided by 100 to get the required dosage to disinfect the pressure tank [4 T x 20 gal. ÷ 100 gal. = 0.8 T]. Add the two for the total required disinfectant [4.5 T + 0.8 T = 5.3 T, use 5½ T] of chlorine granules (HTH, 68% available chlorine).

2. Mix the required amount of liquid or granules, as determined above, in about 5 gallons of water and pour the solution into the well casing. If dry granules or tablets are used, they should be completely dissolved before being added to the well. The use of metal containers should be avoided, if possible, as they are corroded by strong chlorine solutions.

3. Connect a hose from a faucet on the discharge side of the pressure tank to the top of the well casing, and start the pump. Spray the water back into the well and wash the sides of the casing for at least 15 minutes. Alternatively, you may use a plunger or swab.

4. Open every faucet in the system and let the water run until the smell of chlorine can be detected. Then close all the faucets and seal the top of the well.

5. Let stand for at least eight (8) hours, preferably overnight.

6. After you have let it stand, turn on the pump and allow water to discharge from all faucets until all odor of chlorine disappears (faucets or fixtures which discharge into septic tank systems should be throttled to a low flow to avoid overloading the disposal system).

   IMPORTANT: The well must not be used to provide potable water until laboratory tests confirm that the water from the well is free of coliform bacteria.

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