**Section 925.50 Disinfection and Samples**

a) General. When a pump or equipment installation is made on a well which has a use which results that the water meet bacterial quality standards for human consumption, the well, pump, piping and pressure tank shall be disinfected by the contractor. Sufficient chlorine shall be introduced to give a dosage of 100 parts per million to the water in the well.

b) Disinfection. Oil, grease, dirt, and other foreign matter shall be removed from the well and pump, piping and other equipment before installation and the introduction of chlorine. Quantities of household chlorine bleach or dry granules hypochlorite to produce a 100 part per million dosage are given in the following tables.

1) Drilled Wells. The disinfection of drilled wells shall be accomplished in accordance with the following:

|  |  |  |
| --- | --- | --- |
| DIA. WELL IN INCHES | GALLONS PER FT. | AMOUNT OF DISINFECTANT REQUIREDFOR EACH 100 GALLONS OF WATER |
| 3 | .37 | LAUNDRY BLEACH(5.25% Chlorine) | HYPOCHLORITEGRANULES(70% Chlorine) |
| 4 | .65 |
| 5 | 1.0 |
| 6 | 1.5 |  |
| 8 | 2.6 | 3 cups | 2 ounces |
| 10 | 4.1 |  |
| 12 | 6.0 |  |

|  |  |  |
| --- | --- | --- |
|  |  | 1 cup = 8 oz. measuring cup |
|  |  | (2 cups = 1 pt. |
|  |  |  4 cups = 1 qt.) |
|  |  | 1 oz. = 1 heaping tablespoon granules |
|  |  | 16 oz. = 1 pound |

A) Determine the amount of water in the well by multiplying the gallons per feet by the number of feet of water in the well.

B) For each 100 gallons of water in the well, use the amount of chlorine liquid or compound given in the above tables. Mix this total amount in about 10 gallons of water. If dry granules or tablets are used, they may be added directly to drilled wells.

C) Pour this solution into the top of the well before the seal is installed.

D) Connect one or more hoses from faucets on the discharge side of the pressure tank to the top of the well casing and start the pump, recirculating the water back into the well for at least 15 minutes. Then open each faucet in the system until a chlorine smell appears. Close all faucets. Seal the top of the well.

E) Let stand for several hours, preferably overnight.

F) After standing operate the pump, discharging water from all outlets until all chlorine odor disappears. Faucets on fixtures discharging to septic tank systems should be throttled to a low flow to avoid overloading the disposal system.

2) Bored Wells. The disinfection of bored wells shall be accomplished in accordance with the following:

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| DIAMETER OF WELL (IN FEET) | 3 | 4 | 5 | 6 | 7 | 8 | 10 |
| AMOUNT OF 5.25% LAUNDRY BLEACH TO USE PER FOOT OF WATER (IN CUPS) | 1½ | 3 | 4½ | 6 | 9 | 12 | 12 |
|  |  |
| AMOUNT OF 70% CHLORINE GRANULES OR POWDER TO USE PER FOOT OF WATER (IN OUNCES) | 1 | 2 | 3 | 4 | 6 | 8 | 12 |
|  |  |

A) The amount of disinfectant required is determined primarily by the amount of water in the well. The table above shows the amount of chlorine to use for each foot of water in the well, according to its diameter.

B) To determine the exact amount of bleach to use, multiply the amount of disinfectant indicated as determined by the well's diameter times the number of feet of water.

C) This total amount of bleach shall be added to approximately 10 gallons of water, and splashed around the lining, or wall of the well. Be certain that the solution has contacted all parts of the well, using the entire amount of disinfectant. Seal the top of the well.

D) When this is done, pump enough water so the strong chlorine odor is evident. When the odor is detected, stop the pumping and allow the solution to remain in the well overnight.

E) After standing, operate the pump, discharging water from all outlets until all chlorine odor disappears. Faucets on fixtures discharging to septic tank systems shall be throttled to a low flow to avoid overloading the disposal system.

c) Water Sample Analysis. Upon installation of a well pump or repair or modification of any well pump or equipment the contractor shall give the owner information prepared by the Department explaining the importance of water well sampling, procedures for sampling and how the water can be tested to assure a safe supply of water.