## Indiana State Board of Health Division of Sanitary Engineering Indianapolis, Indiana

## DIRECTIONS FOR DISINFECTING WELLS AND DRINKING WATER

Instructions for treatment of wells which have been contaminated by flood or storm waters have been issued by the Division of Sanitary Engineering of the Indiana State Board of Health. If water from such wells must be used for drinking or the preparation of food, it should be boiled for five (5) minutes or treated with three drops per gallon of a solution containing five percent (5%) available chlorine. When Chlorine is added, the water should not be used until thirty (30) minutes after the addition of the chlorine.

After high waters have receded, wells can be disinfected with chlorine. A handy form to use is sold commercially in grocery stores as a liquid chlorine laundry bleach under such trade names as B-K Solution, Bright Sail, Clorox, Easy Life, Fleecy White, Home Circle, Hy-Glo, Kandu, Lily, Little Sport, Purex, Roman Cleanser, Scot Lad, Time Saver, or many others. Most of these products contain 5.25 percent or more sodium hypochlorite when fresh, which is equivalent to five percent (5%) available chlorine.

The quantity of the chlorine solution needed to disinfect a well is based upon fifty (50) parts of chlorine to a million parts of water. To eliminate mathematical calculations, it is safe to use one and one-fourth pints of a five percent (5%) solution for each 100 feet of water in a drilled well, four to six inches in diameter. For two inch (2") driven wells or smaller, add one-quarter (1/4) measuring cup of solution for each twenty-five (25) fee of water.

The measured solution should be diluted to make about three (3) gallons before being poured into the well, either directly into the casing of a single tubular well or into the annular space between the out casing and the drop pipe of a double tubular well. If the well is sealed and the pump drop pipe is not equipped with a foot valve at the bottom, and does not have a cylinder in the way, it is also possible to pour the solution down through the pump and the drop pipe.

Dug wells which have been contaminated should first be pumped dry, cleaned, and the walls scrubbed down. If it is not possible to pump the well dry, the pumping should be continued until the water becomes clear. The well should then be allowed to fill and, if the water is not clear, it should be pumped out again.

When the water is clear, the well should be disinfected using the following quantities of five percent (5%) chlorine solution for each foot of depth of water:

Diameter of Well	Quantity five percent (5%) Chlorine Bleach
1 to 3 feet	1/2 pint
4 feet	1 pint
5 feet	1-1/2 pints
6 feet	2 pints
8 feet	3-1/2 pints
10 feet	5 pints

If the above dosages do not produce a taste of chlorine in the water, add more chlorine bleach solution until a distinct taste is noticed. Cisterns should be handled in the same manner as dug wells.

After a well has been dosed with chlorine bleach solution, it should be pumped just long enough to bring the treated water through the hand pump or to all the faucets on a pressure system. The odor at the faucets will be a good enough test to indicate chlorine. Let the well stand thus for 12 to 24 hours. After this period, it should be pumped to waste until no further trace of chlorine is noticeable in the water. The water should then be sampled for bacteriological analysis. Remember that no water should be used for drinking or food preparation, unless it is first boiled or treated, until a satisfactory report is obtained from a laboratory. Contact your local health department for assistance.