

Rod R. Blagojevich, Governor
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MEMORANDUM

To: Licensed Water Well Pump Installation Contractors

Local Health Departments
Directors of Environmental Health

Regional Engineers/Supervisors

Amended Copy

From: Jerry Dalsin
Division of Environmental Health

Date: November 23, 2004

Subject: Approval for the Installation of Chlorine Pellet Feeders

Background:

When a chlorine pellet feeder is installed on a water well, the potential problems far out weigh any cures. The most efficient and effective water treatment system is to install properly sized treatment equipment with periodic water well cleaning. At best, chlorine pellet feeders provide a temporary fix, but over a period of time they can create significant water well problems.

The most significant problem is that unlicensed people install units without any knowledge of water wells or codes. Other problems associated with chlorine pellet feeders are as follows:

1. Chlorine pellets bridge on torque/centering stops and prevent the pump from being pulled;
2. Chlorine pellets pile up on the pitless adapter – destroying the adapter and submersible wire;
3. Chlorine pellet residue builds up on bottom of well causing water quality problems;
4. The hole for the chlorine feeder in the well cap is not properly sealed, allowing a route for contamination;
5. The chlorine dosage is not regulated and it is very easy to obtain an excessive dosage;
6. During times of high water usage, there is not enough contact time for the chlorine to be effective;
and
7. There have been situations where chlorine pellets have locked up pumps resulting in new wells having to be constructed.

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November 23, 2004

Page 2

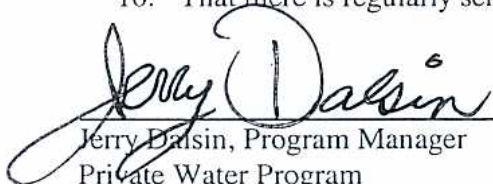
The Illinois Water Well Pump Installation Code, Section 925.40) c) 2) Well Caps, states: "There shall be no openings through the well cap except for a factory installed vent, air line and power supply wiring, unless a proposal is submitted to and approved by the Department. To be approved, the proposal must show that any entrance into the well cap is watertight and meet the following conditions:

- A. Prevent surface water from entering the water supply.
- B. Be secured in place.
- C. Be removable with tools only.
- D. Be resistant to weathering and corrosion."

In accordance with the above Code, a chlorine pellet feeder **CANNOT** be installed on a water well unless a proposal for such installation is submitted to both the Department and the local health department and final approval issued by the Department. If a factory-installed opening will be used to connect the chlorine feeder to the well, the installation would still have to be approved. The Safe Drinking Water Systems Code, Section 900.40 n) 4) prohibits the use of chlorine pellet feeders, as positive displacement pumps shall be provided to inject hypochlorite solution. The use of Pellet Chlorinators will not be allowed for the following sources of water supply: surface water, spring water, cistern water and groundwater under the direct influence of surface water.

Some of the criteria for approval of a chlorine pellet feeder installation include the following:

1. That the well shall be in compliance with the Illinois Water Well and Pump Installation Codes;
2. That the opening in the well cap shall meet the requirements of the Code;
3. That the chlorine pellets are dropped freely into the water, and as a minimum, fall to the depth of the pump intake, i.e. **feeder tube must extend below the pitless adapter connection;**
4. That the rate of chlorine pellet dropping is in relation to the water usage and the condition of the water;
5. That the amount of **residual chlorine in the water system is regularly measured;**
6. That there is **sufficient contact time for the chlorine contained in the pellets;**
7. That there is a **procedure to periodically remove the residue** of the pellets from the water well;
8. That the electrical wiring for the pellet feeder is separate from the electrical wiring of the pumping system, and the pellet feeder shall be electrically connected so that the pellet feeder runs while the pump runs and shuts off when the pump shuts off;
9. That other economically feasible water treatment options are not available; and
10. That there is regularly scheduled maintenance on the chlorine pellet feeder system.



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cc: Water Well Licensing Board
IAGP