

MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY

INTEROFFICE COMMUNICATION

September 10, 1997

TO: Local Health Departments
Attn: Environmental Health Directors
Field Sanitarians
Water Well Drilling Contractors
Pump Installation Contractors

FROM: Michael Gaber, Chief
Well Construction Unit
Ground Water Supply Section
Drinking Water and Radiological Protection Division

SUBJECT: ***Hazards During Grout Probing***

The number of water well inspections has increased dramatically as a result of new well permit programs. As part of the inspection process, many agencies are using soil probes and augers to determine the presence of grout seals surrounding well casings. These tools, when properly used, are effective means of gaining industry compliance with state well code requirements.

This is a reminder that ***probing around a well casing poses a safety risk and caution must be exercised*** when using these tools. Hazards include contact with electrical lines (overhead and buried) and penetration of gas lines. Recently, a state inspector damaged a gas line that was buried 2 inches from the well casing. There have also been reports of sanitarians contacting unshielded electrical wires leading to the submersible pump. Fortunately, there have been no reported injuries resulting from grout probing.

Water well drilling contractors and pump installation contractors are urged to not wrap excess electrical wire around the well casing or bury excess electrical wire near the well. The attached diagram shows the recommended zone in which probing should be done. Keep all electrical wires out of this area.

Sanitarians are advised to use the following precautions when grout probing:

- ***Do not probe around wells located beneath overhead electrical lines.***
- ***Have the property owner shut off power to submersible pump before you probe.***
- ***Probe only within the "Safe Probing Zone" shown on attached diagram.***
- ***Don't use excessive force when an obstruction is encountered. Obstructions are usually rocks, tree roots, pitless adapter clamps, or casing couplings, but they could be an electrical line or gas line.***
- ***Use insulated handles on the auger or probes.***

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- ***Do not probe around flowing artesian wells.***
- ***Wear standard safety equipment and clothing, including safety glasses and hardhats.***
- ***Use proper lifting techniques when pulling probes out of the hole to avoid back injury.***

The holes caused by probing must be sealed with bentonite afterwards. Further information on use of grout probes is available by contacting our office.

The Michigan Department of Environmental Quality encourages local health departments to use probes as a well grouting verification tool. However, we recognize the authority of local health department administrators to establish acceptable risk levels for their employees. Consequently, use of probes during completion of each final inspection is not considered mandatory under the state cost sharing program. To reduce risk, it is recommended that probes be used for occasional field checks and to focus on wells that the local health department has reason to believe may not have been grouted.

MSG:ckh

Attachment

cc: Michigan Ground Water Association
Ground Water Advisory Committee
Ground Water Supply Section
Upper Peninsula Office