

GEOTECHNICAL WELLS

House Bill 4093

Sponsor: Rep. Raymond Basham

**Committee: Conservation and Outdoor
Recreation**

Complete to 2-19-99

A SUMMARY OF HOUSE BILL 4093 AS INTRODUCED 1-28-99

House Bill 4093 would add a new part, Part 141, to the Natural Resources and Environmental Protection Act (NREPA) to establish standards for the drilling, closing, and reporting of geotechnical wells. The bill would also establish penalties for violations of Part 141, and would create a Geotechnical Well Oversight Fund, into which civil fines imposed for the violations would be deposited. The provisions of the bill would apply to geotechnical wells that are known as soil borings, which are used to evaluate a site for construction or to investigate soil or groundwater contamination; groundwater monitoring wells; closed-loop heat exchange wells; elevator cylinder wells; cathodic protection wells; and wells or borings used to remediate contaminated soil or groundwater. Neither water wells that are regulated under Part 127 of the Public Health Code (MCL 333.12701 et al.), wells regulated under the Safe Drinking Water Act (MCL 325.1001 et al.), nor mineral wells, which are regulated under Part 625 of the NREPA, would be included under the bill's provisions.

Well Specifications. The bill would establish several provisions regarding the plugging of wells, although the Department of Environmental Quality (DEQ) could grant an exception if a well owner demonstrated satisfactorily that an alternative method or material would fulfil the intent of the requirements. If the DEQ failed to respond to a request for an exception within ten business days, the request would be considered granted. The requirements are as follows:

- A well would have to be drilled, cased, and sealed so as to prevent contaminants from moving to a subsurface stratum or from one subsurface stratum to another, and to prevent groundwater from flowing into another stratum or on to the ground surface. (Note: The bill would define "contaminant" to mean "any chemical, radionuclide, ion, element, compound, mixture, or microorganism that does not occur naturally in groundwater or soil or that is present in a concentration that is higher than the natural or background concentration.")
- Drilling, operating, and construction equipment and materials would have to be free of materials that could cause soil or groundwater contamination.
- Potable water would have to be used for well drilling and construction, and only water from a municipal water supply system could be used for surface water.
- Drill cuttings would have to be handled and disposed of so as not to cause soil, surface water, or groundwater contamination.

- A well that had not been plugged immediately after drilling was finished would have to be cased and sealed in accordance with provisions specified under the bill.
- The top of a well casing would have to be sealed so as to prevent precipitation, surface water, dirt, or other foreign materials from entering.
- Appropriate measures would have to be taken to protect the top of a well casing from damage.
- A well casing would have to be secured so as to prevent unauthorized entry.

Well Plugging. Under the bill, a geotechnical well would have to be plugged within one year after it ceased to be used for its intended purpose, in compliance with certain requirements, although the DEQ could grant an exception if a well owner demonstrated satisfactorily that an alternative method or material could fulfil the intent of these requirements. If the DEQ failed to respond to a request for an exception within ten business days, the request would be considered granted.

** A well would have to be plugged so as to prevent contaminants, or other injurious substances, from moving to a subsurface stratum or from one subsurface stratum to another, and to prevent groundwater from flowing into another stratum or onto the ground surface.

** Any section of a well, from the surface to a depth of ten feet, could be plugged by filling it with native materials, provided that section did not penetrate bedrock or the water table.

** The section of a well below a depth of ten feet that did not penetrate bedrock would have to be plugged by filling it with cement grout, concrete grout, bentonite grout, or bentonite pellets or chips. However, a well that did not reach the water table and did not encounter silt or clay could be plugged by filling with native materials mixed with 50 percent bentonite granules, pellets, or chips.

** The section of a well that penetrated bedrock would have to be plugged by filling with cement grout or concrete grout to at least 20 feet above the top of the bedrock or to the surface of the ground. The section of the well from 20 feet above the bedrock to the ground surface would have to be plugged in the same manner as prescribed for a well that did not penetrate bedrock.

** Notwithstanding other provisions of the bill, gravel, sand, stone aggregate, or fluid loss agents could be used to plug that portion of a well that penetrated lost circulation zones.

** Only cement or concrete grout could be used to plug wells that discharged gases from the subsurface, or that encountered groundwater under artesian pressure. Precautions would have to be taken to prevent gas or groundwater under artesian pressure from cutting the cement and reaching another stratum or the surface.

** Plugging materials for wells would have to be placed according to certain conditions prescribed in the bill.

** After plugging, there could be no open unplugged annular space between casings, or between a casing and the borehole, inside a casing, or in the borehole.

House Bill 4093 would specify, however, that casings could be removed from a well if all these provisions were met.

Notice of Determination. If the DEQ determined that an owner had failed to case, seal, operate, repair, or plug a well as prescribed under Part 141, or under its rules, then it would be required to give notice of the determination to the owner. Should the owner fail to correct the conditions within 60 days, the department could enter into or upon any private or public property on which the well was located, or across any private or public property to reach it, and repair or correct the problem. The owner would be liable for all expenses incurred, and would have to pay them within 30 days. Otherwise, the DEQ could bring suit in the Ingham County Circuit Court to collect expenses.

Penalties and Fines. A violation of the provisions of Part 141 would be considered a misdemeanor, punishable by imprisonment for up to 90 days, a fine of up to \$2,500, or both. Also, a person would be responsible for a civil fine of up to \$1,000 for each well at which a violation occurred. In addition, a person who failed to file a geological well reporting form would be responsible for a civil fine of up to \$2,000. The bill would also specify that a default in the payment, or installment payment, of a civil fine or costs could be remedied by any means authorized under the Revised Judicature Act (MCL 600.101 et al.). Civil fines collected under these provisions would be deposited into a new Geotechnical Well Oversight Fund established under the bill.

MCL 324.14101

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