**MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY**
**WATER DIVISION**
**GROUNDWATER SECTION – WELL CONSTRUCTION UNIT**

# ***MINIMUM WELL ISOLATION DISTANCES***

**(From Contamination Sources and Buildings)**
**Part 127, Act 368, P.A. 1978 And Act 399, P.A. 1976**

The following lists sources of contamination and the well isolation distances required from those sources by state codes. The Michigan Department of Environmental Quality and local health departments have authority to issue deviations from these minimum isolation distances on a case by case basis. Criteria for issuance of deviations are set forth in R 325.1613 of the Rules for Part 127, and R 325.10809 of the Rules for Act 399.

* = For the isolation distances marked with a single asterisk, the isolation distance is for a source of contamination which is not specifically listed in the rules. However, the source of contamination is interpreted as belonging in a general contamination source group (example - a sewage holding tank is the same as a septic tank) which is listed in the rules, and therefore, the isolation distance listed in this document is required.

** = For the isolation distances marked with a double asterisk, the isolation distance is from a source of contamination which is not specifically named in the rules. However, the Michigan Department of Environmental Quality has established a recommended isolation distance based on the contaminant involved, the risk to public health, and other factors. Under the general authority of a health officer's responsibility to protect the public health, health officers may modify this recommended isolation distance, either increasing or decreasing it, on a case by case basis.

| | REQUIRED MINIMUM ISOLATION DISTANCE (FEET) | | |
|---|---|---|---|
| **CONTAMINATION SOURCE** | **Part 127, Act 368 PA 1978** | **Act 399, PA 1976** | |
| | | IIb and III | I and IIa |
| Agricultural chemical/ fertilizer storage or preparation area | 150 | 800 | 2000 |
| Animal/poultry yard | 50 | 75 | 200 |
| Brine wells/injection wells | **150 | **800 | **2,000 |
| Building or projection thereof | 3 | 3 | 3 |
| Cemetery/graves | **50 | *75 | *200 |
| Cesspool | 50 | 75 | 200 |
| Chemical Storage | 150 | 800 | 2,000 |
| Contaminant plumes, known (Act 307, LUST sites, etc.) | **150 | **800 | **2,000 |
| Drainfield | 50 | 75 | 200 |
| Drywell | 50 | 75 | 200 |
| Footing Drains | 10 | 10 | 10 |
| Fuel/chemical storage tanks – Underground or abovegrade and associated piping | | | |
| depot/tank farm | 300 | 800 | 2,000 |
| 1,100 gal. or larger, without secondary containment | 300 | 800 | 2,000 |
| 1,100 gal. or larger with secondary containment | 50 | 800 | 2,000 |
| less than 1,100 gal. that store motor or heating fuel for noncommercial purpose or consumptive use on premises where fuel is stored | 50 | 800 | 2,000 |
| less than 1,100 gal. that store motor fuel for commercial purpose | *50 | 800 | 2,000 |
| located in a basement, regardless of size | *50 | 800 | 2,000 |
| Grease trap | 50 | *75 | *200 |
| Kennels | 50 | *75 | *200 |
| Landfill or dump sites (Active or Inactive) | 800 | 800 | 2,000 |

| | | | |
|---|---|---|---|
| Liquid Petroleum (LP) Tanks (See comments on last page) | | | |
| Liquid waste draining into the soil | 50 | *75 | 200 |
| Metering station for pipelines | *300 | *300 | *300 |
| Municipal wastewater effluent or sludge disposal area (land surface application or subsurface injection) | 300 | 800 | 2,000 |
| Oil or gas well | 300 | 300 | 300 |
| Other wastewater handling or disposal unit | 50 | *75 | *200 |
| Petroleum product processing or bulk storage | 300 | 800 | 2,000 |
| Pipelines<br>gas, oil, etc. | *300 | *300 | *300 |
| natural gas (See comments on last page) | | | |
| Privy/Outhouse | 50 | 75 | 200 |
| Seepage pit | 50 | 75 | 200 |
| Septic tank | 50 | 75 | 200 |
| Septage waste (land application area) | 800 | 800 | 2,000 |
| Sewage holding tank | 50 | *75 | *200 |
| Sewage lagoon serving a single family dwelling | 50 | 75 | 200 |
| Sewage lagoon effluent – land application area | 50 | 800 | 2,000 |
| Sewage or liquid waste draining into soil | 50 | *75 | *200 |
| Sewage pump chamber, transfer station, or lift station | 50 | 75 | 200 |
| Sewers<br>Buried gravity sewer (sanitary or storm) - Service weight or heavier ductile-iron or cast iron, or schedule 40 PVC, all with watertight joints | 10 | 75 | 200 |
| Buried pressure sewer (sanitary or storm) Watertight joints (pressure tested after installation to 100 psi), equivalent to Schedule 40 or SDR 21, and meets or exceeds ASTM Specifications D1785-91 or D2241-89 | 10 (by written deviation only) | 75 | 200 |
| Buried gravity or pressure sewer (sanitary or storm), constructed of materials not meeting the specifications listed in the two categories above, or the materials are unknown | 50 | 75 | 200 |
| Sump pit<br>Receiving other than household waste (footing drain, roof drain, etc.) | 10 | 10 | 10 |
| Receiving household waste (laundry, softener backwash, sink waste, etc.) | 50 | 75 | 200 |
| Surface water (lake, river, stream, pond, ditch, etc.) | 10 | 75 | 200 |
| Unfilled space below ground surface (except an approved basement, basement offset, or crawl space beneath single family dwelling) | 10 | 10 | 10 |

**Comments:** Natural gas and liquid petroleum (LP) are not considered sources of ground water contamination because of the volatile gas nature of the fuels. If leaks occur, the gases escape into the atmosphere. Leaked gases do not migrate downward into the soil. Wells should be sufficiently isolated from natural gas lines or LP tanks to minimize the potential for damage to the lines or tanks during well construction or repair, trenching of water lines, etc., and to allow accessibility to the well.