



# Isolation Distances From a Water-Supply Well

## Minnesota Rules, Chapter 4725

### Rules Relating to Wells and Borings

The isolation distances below are from Minnesota Rules, chapter 4725. Distances must be measured horizontally from the water-supply well. Minnesota Statutes, section 103I.205, subdivision 6, prohibits constructing, placing, or installing an actual or potential contaminant source from a well that is less than the minimum distance prescribed by rule. The minimum isolation distance must be maintained between a new well and a contamination source, even if the contamination source is no longer in use. An isolation distance is not required if the contamination source and any related contaminated soil have been removed. Additional information and explanations can be found in the *Rules Handbook, A Guide to the Rules Relating to Wells and Borings* or contact the Well Management Section at the number above.

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| Absorption area of a soil dispersal system  |                        |
| average flow is greater than 10,000 gallons/day.....  | 300 feet <sup>1</sup>  |
| serving a facility handling infectious or pathological wastes.....  | 150 feet <sup>1</sup>  |
| average flow 10,000 gallons/day or less.....  | 50 feet <sup>1</sup>   |
| Agricultural chemical   |                        |
| tank or container with 25 gallons or more or 100 pounds or more dry weight, or equipment filling or cleaning area without safeguards.....                                       | 150 feet               |
| storage or equipment filling or cleaning area with safeguards.....  | 100 feet               |
| storage or equipment filling or cleaning area with safeguards and roofed.....   | 50 feet                |
| buried piping.....  | 50 feet                |
| multiple tanks or containers for residential retail sale or use, no single tank or container exceeding, but aggregate volume exceeding 56 gallons or 100 pounds dry weight..... | 50 feet                |
| Anhydrous ammonia tank.....   | 50 feet                |
| Animal  |                        |
| feedlot, unroofed, 300 or more animal units.....  | 100 feet <sup>1</sup>  |
| feedlot, more than 1.0, but less than 300 animal units.....   | 50 feet <sup>1</sup>   |
| building or poultry building, including a horse riding area, more than 1.0 animal unit.....   | 50 feet <sup>1</sup>   |
| rendering plant.....  | 50 feet                |
| feeding or watering area within a pasture, more than 1.0 animal unit.....   | 50 feet <sup>1</sup>   |
| area to bury more than one animal unit.....   | 50 feet                |
| building, feedlot, confinement area, or kennel, 0.1 to 1.0 animal unit.....   | 20 feet <sup>1,2</sup> |
| Building, building projection, deck, overhang, permanent structure.....   | 3 feet <sup>3</sup>    |
| Cesspool.....   | 75 feet <sup>1</sup>   |
| Cistern or reservoir, buried, nonpressurized water supply.....  | 20 feet                |
| Commercial compost site.....  | 50 feet                |
| Construction or demolition debris disposal area.....  | 50 feet <sup>1</sup>   |
| Cooling water pond, industrial.....   | 50 feet <sup>1</sup>   |
| Deicing chemicals, bulk road.....   | 50 feet <sup>1</sup>   |

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| Drainfield (see Absorption area)   |                       |
| Dry well (sewage).....   | 75 feet <sup>1</sup>  |
| Electric transmission line.....  | 10 feet <sup>4</sup>  |
| Electrical transformer storage area, oil-filled.....   | 50 feet               |
| Elevator boring, not conforming to rule.....   | 50 feet               |
| conforming to rule.....  | 20 feet               |
| Fertilizer chemigation tank, safeguarded, from irrigation well only.....   | 20 feet <sup>5</sup>  |
| Floor drain, grate, or trough  |                       |
| connected to a buried sewer.....   | 50 feet               |
| if buried sewer is air-tested, approved materials, serving one building, or two or less single-family residences.....  | 20 feet <sup>2</sup>  |
| Frost-proof yard hydrant or discharge of a frost-proof hydrant draining into the soil, fire hydrant or flushing hydrant.....   | 10 feet               |
| Gas (flammable or volatile) pipe.....  | 10 feet <sup>4</sup>  |
| Grave or mausoleum.....  | 50 feet               |
| Gravel pocket or French drain for clear water drainage.....  | 20 feet               |
| Gray-water dispersal area.....   | 50 feet <sup>1</sup>  |
| Hazardous substance  |                       |
| tank or container, above ground or underground, 56 gallons or more, or 100 pounds or more dry weight, without safeguards.....  | 150 feet              |
| tank or container, above ground or underground, 56 gallons or more, or 100 pounds or more dry weight with safeguards.....  | 100 feet              |
| buried piping.....   | 50 feet               |
| multiple storage tanks or containers for residential retail sale or use, no single tank or container exceeding 56 gallons or 100 pounds, but aggregate volume exceeding..... | 50 feet               |
| Horizontal ground source closed loop heat exchanger buried piping.....   | 50 feet               |
| Horizontal ground source closed loop heat exchanger buried piping and horizontal piping, approved materials and heat transfer fluid.....                                     | 10 feet <sup>2</sup>  |
| Household solid waste disposal area, single residence.....   | 50 feet <sup>1</sup>  |
| Interceptor, including a flammable waste or sediment.....  | 50 feet               |
| Land spreading area for sewage, septage, or sludge.....  | 50 feet <sup>1</sup>  |
| Landfill or dump, mixed municipal solid waste from multiple persons.....   | 300 feet <sup>1</sup> |
| Landfill, permitted demolition debris.....   | 300 feet <sup>1</sup> |
| Leaching pit.....  | 75 feet <sup>1</sup>  |
| Liquid propane (LP) tank.....  | 10 feet <sup>4</sup>  |

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| Manure (liquid) storage basin or lagoon   |                       |
| unpermitted or noncertified.....  | 300 feet <sup>1</sup> |
| approved earthen liner.....   | 150 feet <sup>1</sup> |
| approved concrete or composite liner.....   | 100 feet <sup>1</sup> |
| Manure (solid) storage area, not covered with a roof.....   | 100 feet <sup>1</sup> |
| Ordinary high water level of a stream, river, pond, storm water retention pond,<br>lake, or reservoir.....                        | 35 feet <sup>2</sup>  |
| Petroleum   |                       |
| tank or container, 1100 gallons or more, without safeguards.....  | 150 feet              |
| tank or container, 1100 gallons or more, with safeguards.....   | 100 feet              |
| tank or container, buried, between 56 and 1100 gallons.....   | 50 feet               |
| tank or container, not buried, between 56 and 1100 gallons.....   | 20 feet <sup>6</sup>  |
| buried piping.....  | 50 feet               |
| Petroleum or crude oil pipeline to a refinery or distribution center.....   | 100 feet              |
| Pit or unfilled space more than 4 feet in depth.....  | 20 feet               |
| Pollutant or contaminant that may drain into the soil.....  | 50 feet <sup>1</sup>  |
| Privy, nonportable.....   | 50 feet <sup>1</sup>  |
| portable (privy) or toilet.....   | 20 feet <sup>2</sup>  |
| Sand filter, watertight; peat filter; or constructed wetland.....   | 50 feet               |
| Scrap yard.....   | 50 feet               |
| Seepage pit.....  | 75 feet <sup>1</sup>  |
| Septic tank.....  | 50 feet               |
| Sewage holding tank, watertight.....  | 50 feet               |
| Sewage sump   |                       |
| capacity 100 gallons or more.....   | 50 feet               |
| capacity less than 100 gallons, tested, conforming to rule.....   | 20 feet <sup>2</sup>  |
| Sewage treatment device, watertight.....  | 50 feet               |
| Sewer, buried   |                       |
| collector, municipal, serving a facility handling infectious or pathological<br>wastes, open-jointed or unapproved materials..... | 50 feet               |
| approved materials, tested, serving one building, or two or less<br>single-family residences.....                                 | 20 feet <sup>2</sup>  |
| Solid waste transfer station.....   | 50 feet               |
| Storm water drain pipe, 8 inches or greater in diameter.....  | 20 feet <sup>2</sup>  |
| Swimming pool, in-ground.....   | 20 feet               |
| Unused, unsealed well or boring.....  | 50 feet               |
| Vertical heat exchanger (vertical) piping, conforming to rule.....  | 35 feet <sup>2</sup>  |
| horizontal piping conforming to rule.....   | 10 feet <sup>2</sup>  |
| Wastewater rapid infiltration basin, municipal or industrial.....   | 300 feet <sup>1</sup> |
| Wastewater spray irrigation area, municipal or industrial.....  | 150 feet <sup>1</sup> |

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| Wastewater stabilization pond  |                       |
| municipal, 500 or more gallons/acre/day of leakage.....                      | 300 feet <sup>1</sup> |
| municipal, less than 500 gallons/acre/day of leakage.....                    | 150 feet <sup>1</sup> |
| industrial.....  | 150 feet <sup>1</sup> |
| Wastewater treatment unit tanks, vessels and components (package plant)..... | 100 feet              |
| Water treatment backwash disposal area.....                                  | 50 feet <sup>1</sup>  |
| Water treatment backwash holding basin, reclaim basin, or surge tank         |                       |
| with a direct sewer connection.....  | 50 feet               |
| with a backflow protected sewer connection.....                              | 20 feet               |

**Additional Isolation Distances for Community Public Water-Supply Wells**

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|---|---------|
| Highest water or flood level.....                                 | 50 feet |
| Property line, unless legally controlled through an easement..... | 50 feet |

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- <sup>1</sup> A sensitive water-supply well must be located at least twice the indicated distance.  
  
A sensitive water-supply well is a well with less than 50 feet of watertight casing, and which is not cased below a confining layer or confining materials of at least 10 feet in thickness.
  - <sup>2</sup> A community public water-supply well must be a minimum of 50 feet from this contamination source.
  - <sup>3</sup> A well or boring may not be constructed inside a building except as provided for by Minnesota Rules, part 4725.2175.
  - <sup>4</sup> A well or boring may be located between 5 and 10 feet of an electric transmission line, gas pipe or LP tank if the well or boring is placarded, and work is not performed on the well or boring unless the electric line is deenergized and grounded or shielded, and the LP tank does not contain flammable gas.
  - <sup>5</sup> The 20-foot distance applies only to an irrigation well and a fertilizer chemigation supply tank meeting the requirements of Minnesota Rules, chapter 1505.
  - <sup>6</sup> A community public water-supply well must be a minimum of 50 feet from a petroleum tank or container with a capacity between 56 and 1,100 gallons, unless the tank or container is used to fuel emergency pumping equipment and is located in a room or building separate from the community well; and is of double-wall construction with leak detection between walls; or is protected with secondary containment.

**Online Information**

- [Well Management Program \(www.health.state.mn.us/wells\)](http://www.health.state.mn.us/wells).
- [Minnesota Rules, Chapter 4725 Wells and Borings \(www.revisor.mn.gov/rules/4725/\)](http://www.revisor.mn.gov/rules/4725/).
- [Minnesota Statutes, Chapter 1031 Wells, Borings, and Underground Uses \(www.revisor.mn.gov/statutes/cite/1031\)](http://www.revisor.mn.gov/statutes/cite/1031).

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