



ISOLATION DISTANCES FROM A WATER-SUPPLY WELL

Minnesota Rules, Chapter 4725
Rules Relating to Wells and Borings
August 4, 2008

Minnesota Department of Health

Well Management Section
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Environmental Health Division

This list of isolation distances is summarized from Minnesota Rules, Chapter 4725. These distances are to 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 at a location from a well that is less than the minimum distance prescribed by rule. The minimum isolation distances must be maintained between a new well and a source of contamination no longer in use, unless all contaminants have been removed from the source, and visibly contaminated soils have been removed. For complete regulations, consult these rules and Minnesota Statutes, Chapter 103I. Additional information and explanation can be obtained by consulting the Rules Handbook, A Guide to the Rules Relating to Wells and Borings, or by contacting the Well Management Section, Minnesota Department of Health (MDH).

Absorption area of a soil dispersal system	
average flow greater than 10,000 gallons/day	300 feet ¹
serving a facility handling infectious or pathological wastes	150 feet ¹
average flow 10,000 gallons/day or less	50 feet ¹
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 ¹
feedlot, more than 1.0, but less than 300 animal units	50 feet ¹
building or poultry building, including a horse riding area, more than 1.0 animal unit	50 feet ¹
rendering plant.....	50 feet
feeding or watering area within a pasture, more than 1.0 animal unit	50 feet ¹
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 ^{1,2}
Building, building projection, deck, overhang, permanent structure	3 feet ³

Cesspool.....	75 feet ¹
Cistern or reservoir, buried, nonpressurized water supply	20 feet
Commercial compost site.....	50 feet
Construction or demolition debris disposal area.....	50 feet ¹
Cooling water pond, industrial.....	50 feet ¹
Deicing chemicals, bulk road.....	50 feet ¹
Dry well (sewage).....	75 feet ¹
Electric transmission line.....	10 feet ⁴
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 ⁵
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 ²
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 ⁴
Grave or mausoleum	50 feet
Gravel pocket or French drain for clear water drainage	20 feet
Gray-water dispersal area	50 feet ¹
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 ²
Household solid waste disposal area, single residence.....	50 feet ¹
Interceptor, including a flammable waste or sediment	50 feet
Land spreading area for sewage, septage, or sludge.....	50 feet ¹
Landfill or dump, mixed municipal solid waste from multiple persons	300 feet ¹
Landfill, permitted demolition debris	300 feet ¹
Leaching pit	75 feet ¹
Liquid propane (LP) tank.....	10 feet ⁴

Manure (liquid) storage basin or lagoon	
unpermitted or noncertified	300 feet ¹
approved earthen liner	150 feet ¹
approved concrete or composite liner	100 feet ¹
Manure (solid) storage area, not covered with a roof	100 feet ¹
Ordinary high water level of a stream, river, pond, storm water retention pond, lake, or reservoir	35 feet ²
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 ⁶
buried piping	50 feet
Petroleum or crude oil pipeline to a refinery or distribution center	100 feet
Pit or unfilled space more than four feet in depth	20 feet
Pollutant or contaminant that may drain into the soil	50 feet ¹
Privy, nonportable	50 feet ¹
portable (privy) or toilet	20 feet ²
Sand filter, watertight; peat filter; or constructed wetland	50 feet
Scrap yard	50 feet
Seepage pit	75 feet ¹
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 ²
Sewage treatment device, watertight	50 feet
Sewer, buried	
collector, municipal, serving a facility handling infectious or pathological wastes, open-jointed or unapproved materials	50 feet
approved materials, tested, serving one building, or two or less single-family residences	20 feet ²
Solid waste transfer station	50 feet
Storm water drain pipe, 8 inches or greater in diameter	20 feet ²
Swimming pool, in-ground	20 feet
Unused, unsealed well or boring	50 feet
Vertical heat exchanger (vertical) piping, conforming to rule	35 feet ²
horizontal piping conforming to rule	10 feet ²

Wastewater rapid infiltration basin, municipal or industrial	300 feet ¹
Wastewater spray irrigation area, municipal or industrial.....	150 feet ¹
Wastewater stabilization pond	
municipal, 500 or more gallons/acre/day of leakage.....	300 feet ¹
municipal, less than 500 gallons/acre/day of leakage	150 feet ¹
industrial.....	150 feet ¹
Wastewater treatment unit tanks, vessels and components (Package plant)	100 feet
Water treatment backwash disposal area.....	50 feet ¹
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

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

- ¹ 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.
- ² A community public water-supply well must be a minimum of 50 feet from this contamination source.
- ³ A well or boring may not be constructed inside a building except as provided for by Minnesota Rules, part 4725.2175.
- ⁴ 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.
- ⁵ The 20-foot distance applies only to an irrigation well and a fertilizer chemigation supply tank meeting the requirements of Minnesota Rules, Chapter 1505.
- ⁶ A community public water-supply well must be a minimum of 50 feet from a petroleum tank or container, unless the tank or container is used for emergency pumping 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.

Visit the MDH Well Management Section Web site at: www.health.state.mn.us/divs/eh/wells
 Visit Minnesota Rules, Chapter 4725 Web site at: www.revisor.leg.state.mn.us/rules/?id=4725
 Visit Minnesota Statutes, Chapter 103I Web site at: www.revisor.leg.state.mn.us/statutes/?id=103I

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