7081.0270 FINAL TREATMENT AND DISPERSAL.

Subpart 1. **General.** Final treatment and dispersal must be according to applicable design requirements in chapter 7080, except as modified in this part. Code of Federal Regulations, title 40, parts 144 and 146, prescribe additional design regulations applicable to certain systems designed under this chapter. At a minimum, flow amounts to be used for the purposes of this part must be derived from part 7081.0110.

Subp. 2. **Setbacks.** MSTS components must meet the setbacks in Table II.

Table II

Minimum Setback Distances (feet)

Feature	Sewage Tank, Holding Tank, or Sealed Privy	Absorption Area or Sealed Privy	Building Sewer or Sewage Supply Pipes
Water supply wells	*	*	*
Buried water lines	*	*	*
Buildings**	10	20	
System site boundaries	10	10	
The ordinary high water level of public waters	***	***	

*Setbacks from buried water pipes and water supply wells are governed by chapters 4714 and 4725, respectively.

**If setbacks are reduced through local administrative processes, the system shall not be located under or within the structure.

***Setbacks from lakes, rivers, and streams are governed by chapters 6105 and 6120.

Subp. 3. **Minimal soil and site conditions.** The site proposed to support the soil treatment and dispersal system must:

A. have the upper 12 inches of the absorption area:

(1) be original soil;

(2) have a soil loading rate of greater than zero as listed in Table IX or IXa, in part 7080.2150, subpart 3, item E; and

(3) be above the periodically saturated soil or bedrock;

B. meet the area size requirements in subpart 5 and setbacks in subpart 2 and all easements;

C. not be a wetland or floodway;

D. not be in an area in which surface runoff from precipitation will concentrate (concave hillslope); and

E. allow the system to be placed on contour.

Subp. 4. **Inspection pipes.** Inspection pipes must be located to adequately assess the hydraulic performance of the entire soil dispersal system.

Subp. 5. **Soil absorption area sizing.**

A. Effluent loading rates to the soil must be determined in:

(1) part 7080.2150, subpart 3, item E, Table IX or IXa; or

(2) part 7080.2400, if allowed by the local unit of government.

B. If the absorption area receives septic tank or treatment level C effluent as described in part 7083.4030, the absorption area shall be increased by 50 percent of the amount derived in item A, subitem (1), and zoned for dosing and resting.

Subp. 6. **System geometry, lawn area sizing, and groundwater mounding.** The system geometry and lawn area sizing shall be sized to prevent groundwater mounding from violating the unsaturated zone beneath the soil system according to subpart 7, for proper hydraulic functioning, and for concentration reduction of nitrogen and phosphorus, if applicable.

Subp. 7. **Reserve land area.** Additional set-aside land area of 100 percent of the size determined in subpart 6 is required for systems whose absorption area receives effluent meeting treatment level A or B in part 7083.4030 or designed in accordance with part 7080.2400. Additional land area of 50 percent of the size determined in subpart 6 is required for systems whose absorption area receives treatment level C in part 7083.4030. The reserve land area must be identified and protected for future use if necessary. Replacement MSTS proposed on sites that cannot meet this requirement are allowed to be exempted by the local unit of government.

Subp. 8. **Soil treatment zone.** For treatment of effluent by soil to meet the performance criteria in part 7081.0080, subpart 4, item C, the soil treatment and dispersal systems must meet the requirements of item A, B, or C.

A. For soil treatment and dispersal systems that receive treatment level A-2, B-2, or C effluent as described in part 7083.4030, the soil treatment zone requirements must meet part 7080.2150, subpart 3, item C. The required three-foot vertical separation must be maintained during operation after accounting for groundwater mounding.

B. For soil treatment and dispersal systems that receive treatment level A or B effluent as described in part 7083.4030, the soil treatment zone requirements must meet part

7080.2150, subpart 3, item C, unless it is modified in Table XI of part 7080.2350, subpart 2, with a minimum vertical separation of two feet. The required vertical separation must be maintained during operation after accounting for groundwater mounding.

C. The minimum vertical separation can be determined by the method described in part 7080.2400 to meet provisions of part 7081.0080, subpart 4, item C, if allowed by the local unit of government.

D. An observation well to measure the height of the periodically saturated soil beneath the operating system must be installed and monitored according to the operating permit.

Subp. 9. **Nitrogen reduction.** Systems must employ nitrogen mitigation methods to achieve compliance with part 7081.0080, subpart 4, item D, and must be monitored in accordance with part 7081.0210, subpart 4.

Subp. 10. **Phosphorus reduction.** Phosphorus mitigation methods must be employed to achieve compliance with part 7081.0080, subpart 4, item E, if natural processes are found inadequate.

Subp. 11. **Design report.** All information required in this part shall be submitted for review and approval by the local unit of government prior to system construction, including all applicable information delineated on a map.

Statutory Authority: *MS s 14.389; 115.03; 115.55; 115.56; L 2015 1Sp4 art 4 s 132,145*

History: *32 SR 1400; 35 SR 1353; 38 SR 1001; 40 SR 689*

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