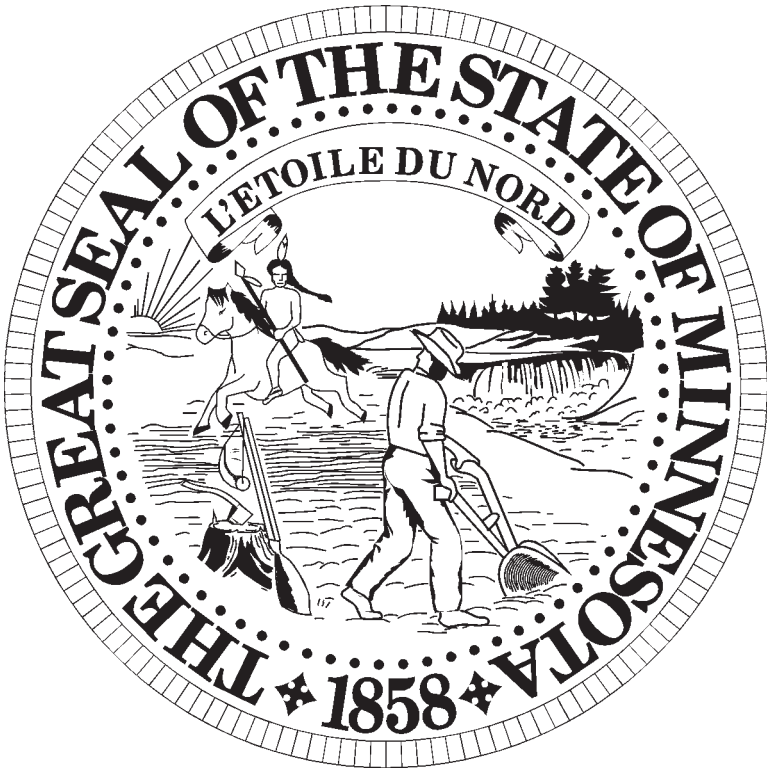
State of Minnesota

State Register



Rules, Executive Orders, Appointments,
Commissioners' Orders, Revenue Notices, Official Notices, Grants,
State Contracts & Loans, Non-State Bids, Contracts & Grants
Published every Monday (Tuesday when Monday is a holiday)

Monday 28 January 2008
Volume 32, Number 31
Pages 1343 - 1466

State Register

Judicial Notice Shall Be Taken of Material Published in the *State Register*

The *State Register* is the official publication of the State of Minnesota, published weekly to fulfill the legislative mandate set forth in *Minnesota Statutes* § 14.46. The *State Register* contains:

- **rules of state agencies**
- **executive orders of the governor**
- **appointments**
- **commissioners' orders**
- **revenue notices**
- **official notices**
- **state grants and loans**
- **contracts for professional, technical and consulting services**
- **non-state public bids, contracts and grants**

PUBLISHING NOTICES: Submit ONE COPY of your notice, typed double-spaced. State agency submissions must include a "*State Register* Printing Order" form, and a "Certification/Internal Contract Negotiation" form with contracts for professional, technical and consulting services. Non-State Agencies should submit ONE COPY, with a letter on your letterhead stationery requesting publication and date to be published. **E-MAIL** submissions to: *robin.panlener@state.mn.us*, or **FAX** to: (651) 297-8260. Please follow FAX by sending originals and applicable forms or letters. The charge is $14.40 per tenth of a page (columns are seven inches wide). One typwritten, double-spaced page is about 4/10s of a page in the *State Register*, or $57.60. About 2-1/2 pages typed, double-spaced, on 8-1/2"x11" paper equal one typeset page in the ***State Register.*** Contact the editor if you have questions.

SUBSCRIPTION SERVICES:
Copies are available at Minnesota's Bookstore, 660 Olive Street, St. Paul, MN 55155. Order by phone: Metro area: (651) 297-3000 Toll free (800) 657-3757. TTY relay service phone number: (800) 627-3529. **NO REFUNDS.** E-mail subscriptions are available by contacting (651) 297-8777. Send address changes to Minnesota's Bookstore, 660 Olive Street, St. Paul, Minnesota 55155.

SEE THE *State Register* free at **website:** *http://www.minnesotasbookstore.com*

- ***State Register:*** **On-line subscription** – $180, includes Early View, LINKS, INDEX, and Sidebar Table of Contents ***sent to you via E-mail***.
- **Single issues** are available for a limited time: ***State Register*** $5.00.
- **"Affidavit of Publication"** costs $10.00 and includes a notarized "Affidavit" and a copy of the issue.

Printing Schedule and Submission Deadlines

Vol. 32 Issue Number	PUBLISH DATE (**BOLDFACE** shows altered publish date)	Deadline for: Emergency Rules, Executive and Commissioner's Orders, Revenue and Official Notices, State Grants, Professional-Technical-Consulting Contracts, Non-State Bids and Public Contracts	Deadline for Proposed, Adopted and Exempt RULES
# 31	Monday 28 January	Noon Tuesday 22 January	Noon Wednesday 16 January
# 32	Monday 4 February	Noon Tuesday 29 January	Noon Wednesday 23 January
# 33	Monday 11 February	Noon Tuesday 5 February	Noon Wednesday 30 January
# 34	**TUESDAY 18 FEBRUARY**	Noon Tuesday 12 February	Noon Wednesday 6 February

USPS Publication Number: 326-630 (ISSN: 0146-7751)

THE *STATE REGISTER* IS PUBLISHED by Materials Management Division, Department of Administration, State of Minnesota, pursuant to *Minnesota Statutes* § 14.46 and is available at main branch county libraries in Minnesota and all "State Depository Libraries:" State University and Community College libraries; University of Minnesota libraries; St. Paul, Minneapolis and Duluth Public Libraries; Legislative Reference Library; State Law Library; Minnesota Historical Society Library; and Library Development Service at the State Department of Education.

Minnesota Legislative Information

Senate Public Information Office (651) 296-0504
State Capitol, Room 231, St. Paul, MN 55155
Website: *www.senate.leg.state.mn.us/departments/secretary/seninfo.htm*

House Public Information Services (651) 296-2146
State Office Building, Room 175,
100 Rev. Dr. Martin Luther King Jr Blvd., St. Paul, MN 55155
Website: *www.house.leg.state.mn.us/hinfo/hinfo.htm*

Minnesota State Court System

Court Information Office (651) 296-6043
MN Judicial Center, Rm. 135, 25 Rev. Dr. Martin Luther King Jr Blvd., St. Paul, MN 55155 **Website:** *www.courts.state.mn.us*

Federal Register

Office of the Federal Register (202) 512-1530; or (888) 293-6498
U.S. Government Printing Office – Fax: (202) 512-1262
Website: *http://www.access.gpo.gov/su_docs/aces/aces140.html*

Contents

Minnesota Rules: Amendments and Additions

NOTICE: How to Follow State Agency Rulemaking in the State Register

The *State Register* is the official source, and only complete listing, for all state agency rulemaking in its various stages. State agencies are required to publish notice of their rulemaking action in the *State Register*. Published every Monday, the *State Register* makes it easy to follow and participate in the important rulemaking process. Approximately 80 state agencies have the authority to issue rules. Each agency is assigned specific **Minnesota Rule** chapter numbers. Every odd-numbered year the **Minnesota Rules** are published. The current 1999 set is a 13-volume bound collection of all adopted rules in effect at the time. Supplements are published to update this set of rules. Generally speaking, proposed and adopted exempt rules do not appear in this set because of their short-term nature, but are published in the *State Register*.

An agency must first solicit **Comments on Planned Rules** or **Comments on Planned Rule Amendments** from the public on the subject matter of a possible rulemaking proposal under active consideration within the agency (*Minnesota Statutes* §§ 14.101). It does this by publishing a notice in the *State Register* at least 60 days before publication of a notice to adopt or a notice of hearing, or within 60 days of the effective date of any new statutory grant of required rulemaking.

When rules are first drafted, state agencies publish them as **Proposed Rules,** along with a notice of hearing, or a notice of intent to adopt rules without a hearing in the case of noncontroversial rules. This notice asks for comment on the rules as proposed. Proposed emergency rules and withdrawn proposed rules are also published in the *State Register*. After proposed rules have gone through the comment period, and have been rewritten into their final form, they again appear in the *State Register* as **Adopted Rules.** These final adopted rules are not printed in their entirety in the *State Register*, only the changes made since their publication as Proposed Rules. To see the full rule, as adopted and in effect, a person simply needs two issues of the *State Register*, the issue the rule appeared in as proposed, and later as adopted. For a more detailed description of the rulemaking process, see the most current edition of the *Minnesota Guidebook to State Agency Services.*

The *State Register* features partial and cumulative listings of rules in this section on the following schedule: issues #1-13 inclusive; issues #14-25 inclusive; issue #26 cumulative for issues #1-26; issues #27-38 inclusive; issue #39, cumulative for issues #1-39; issues #40-51 inclusive; and issues #1-52 (or 53 in some years), cumulative for issues #1-52 (or 53). An annual subject matter index for rules was separately printed usually in August, but starting with Volume 19 now appears in the final issue of each volume. For copies or subscriptions to the *State Register,* contact Minnesota's Bookstore, 660 Olive Street (one block east of I-35E and one block north of University Ave), St. Paul, MN 55155 (612) 297-3000, or toll-free 1-800-657-3757.

Rules Index: Volume 32 - Issues # 28 - 31

(Cumulative Index in #27: July 2, 2007 - December 31, 2007)

Natural Resources Department (DNR)

Pollution Control Agency

Public Safety Department

Revenue Department

Human Services Department

Contracts information is available from the Materials Management Helpline (651) 296-2600, or Web site: *www.mmd.admin.state.mn.us*

State Register information is available from Minnesota's Bookstore (651) 297-3000, or (800) 657-3757, Web site: *www.minnesotasbookstore.com*

Adopted Rules

A rule becomes effective after the requirements of *Minnesota Statutes* §§ 14.05-14.28 have been met and five working days after the rule is published in the *State Register*, unless a later date is required by statutes or specified in the rule. If an adopted rule is identical to its proposed form as previously published, a notice of adoption and a citation to its previous *State Register* publication will be printed. If an adopted rule differs from its proposed form, language which has been deleted will be printed with strikeouts and new language will be underlined. The rule's previous *State Register* publication will be cited.

KEY: Proposed Rules - Underlining indicates additions to existing rule language. ~~Strikeouts~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated "all new material." **Adopted Rules** - Underlining indicates additions to proposed rule language. ~~Strikeout~~ indicates deletions from proposed rule language.

Pollution Control Agency

Adopted Permanent Rules Relating to Individual Subsurface Sewage Treatment Systems

The rules proposed and published at *State Register*, Volume 31, Number 33, pages 1023-1064, February 12, 2007 (31 SR 1023), are adopted with the following modifications:

CHAPTER 7080
MINNESOTA POLLUTION CONTROL AGENCY
DESIGN STANDARDS FOR INDIVIDUAL SUBSURFACE
SEWAGE TREATMENT SYSTEMS

7080.1050 PURPOSE AND INTENT.

The proper location, design, installation, use, and maintenance of an individual subsurface sewage treatment system (ISTS) protects the public health, safety, and general welfare by ~~preventing~~ the discharge of adequately treated sewage to the groundwater. In accordance with the authority granted in *Minnesota Statutes*, chapters 103F, 103G, 115, and 116, the Pollution Control Agency provides minimum environmental protection standards for ISTS as defined in this chapter. These environmental protection standards shall be adopted countywide and administered and enforced by local units of government as directed by chapter 7082, as published in the *State Register*, volume 31, page 1079, and as subsequently adopted, and *Minnesota Statutes*, section 115.55.

This chapter regulates all ISTS as defined in this chapter. This chapter does not regulate systems that do not receive sewage as defined in this chapter. If systems receive both sewage and nonsewage, the requirements of this chapter apply, plus any additional requirements governing the nonsewage portion of the wastewater. Systems serving two or more dwellings, systems serving other establishments that serve over 20 persons, and systems receiving nonsewage are also regulated under *Code of Federal Regulations*, title 40, parts 144 and 146.

This chapter does not regulate systems that discharge to the ground surface or surface waters. Those systems require a national pollution discharge elimination system permit.

In addition, this chapter provides prescriptive design, construction, and operational standards to reasonably protect surface water and groundwater and promote public health, safety, and general welfare. This chapter also provides public health and environmental outcomes as a basis for a custom-designed system. Technology and products employed in system design shall adequately protect the public health and the environment as determined by ~~this~~ chapter 7083, as published in the *State Register*, volume 31, page 1088, and as subsequently adopted, and be approved for use by the local unit of government.

In conjunction with these standards, the agency encourages the use of advanced treatment methods and waste reduction to further reduce the discharge of contaminants.

Companion to this chapter are standards for midsized ISTS, chapter 7081, as published in the *State Register*, volume 31, page 1064, and as subsequently adopted; administrative requirements for local ordinances, permit, and inspection programs, chapter 7082, as published in the *State Register*, volume 31, page 1079, and as subsequently adopted; and certification and licensing requirements for those who design, install, inspect, manage, or maintain ISTS, chapter 7083, as published in the *State Register*, volume 31, page 1088, and as subsequently adopted.

7080.1100 DEFINITIONS.

Subpart 1. **Certain terms.** In addition to the definitions in chapters 7081, 7082, and 7083, as published in the *State Register*, volume 31, pages 1064, 1079, and 1088, and as subsequently adopted, which are incorporated in this part, and *Minnesota Statutes*, section 115.55, the following terms have the meanings given them. For the purposes of this chapter, if a term used in this chapter is defined in chapter 7081, 7082, or 7083, as published in the *State Register*, volume 31, pages 1064, 1079, and 1088, and as subsequently adopted, it shall apply to other SSTS if referenced in later chapters. For the purposes of these standards, certain terms or words used are interpreted as

follows: the words "shall" and "must" are mandatory and the words "should" and "may" are permissive. All distances specified in this chapter are horizontal distances unless otherwise specified.

Subp. 2. **Absorption area.** "Absorption area" means the ~~area on~~ design parameter that is associated with the hydraulic acceptance of effluent. The absorption area for mound systems is the original soil below a mound system that is designed to absorb sewage tank effluent. The absorption area for trenches, seepage beds, and at-grade systems is the soil area in contact with the part of the distribution medium that is designed and loaded to allow absorption of sewage tank effluent. This includes both bottom and sidewall soil contact areas.

Subp. 3. **Agency.** "Agency" means the Pollution Control Agency.

Subp. 4. **Alarm device.** "Alarm device" means a device that ~~uses visual and audible methods to alert the system owner or operator of malfunction to prevent sewage overflows~~ alerts a system operator or system owner of a component's status using a visual or audible device. An alarm device can be either on site or remotely located.

Subp. 5. **Applicable requirements.** "Applicable requirements" means:

A. local ISTS ordinances that comply with parts 7080.2150, subpart 2, and 7081.0080, subparts 1 to 5, as published in the *State Register*, volume 31, pages 1051 and 1066, and as subsequently adopted; chapter 7082, as published in the *State Register*, volume 31, page 1079, and as subsequently adopted; and *Minnesota Statutes*, section 115.55; or

B. in areas without complying ordinances to regulate ISTS, the requirements of this chapter.

~~Subp. 6. **ASTM.** "ASTM" means the American Society for Testing and Materials.~~

Subp. ~~7~~ 6. **At-grade system.** "At-grade system" means a pressurized soil treatment and dispersal system where sewage tank effluent is dosed to an absorption bed that is constructed directly on original soil at the ground surface and covered by loamy soil materials.

Subp. ~~8~~ 7. **Baffle.** "Baffle" means a device installed in a septic tank to retain solids and includes, but is not limited to, vented sanitary tees with submerged pipes and effluent screens.

Subp. ~~9~~ 8. **Bedrock.** "Bedrock" means geologic layers, of which greater than 50 percent by volume consist of unweathered in-place consolidated rock or rock fragments. Bedrock also means weathered in-place rock which cannot be hand augered or penetrated with a knife blade in a soil pit.

Subp. ~~10~~ 9. **Bedroom.** "Bedroom" means ~~a room or unfinished area within a dwelling that might reasonably be used as a sleeping room as determined by the local unit of government.~~, for the sole purpose of estimating design flows from dwellings, an area that is:

A. a room designed or used for sleeping; or

B. a room or area of a dwelling that has a minimum floor area of 70 square feet with access gained from the living area or living area hallway. Architectural features that affect the use as a bedroom under this item may be considered in making the bedroom determination.

Subp. ~~11~~ 10. **Biochemical oxygen demand or BOD.** "Biochemical oxygen demand" or "BOD" means the measure of the ~~quantity~~ amount of oxygen ~~used by microorganisms in the aerobic oxidation of organic matter and reduced chemicals~~ required by bacteria while stabilizing, digesting, or treating biodegradable organic matter under aerobic conditions over a five-day incubation period, commonly expressed in milligrams per liter (mg/L).

Subp. ~~12~~ 11. **Building.** "Building" means ~~all potentially occupied structures and any structure's foundation that could be damaged or the structural integrity of which could be jeopardized by the seepage of sewage or sewage tank effluent~~ any structure used or intended for supporting or sheltering any use or occupancy.

Subp. ~~13~~ 12. **Carbonaceous biochemical oxygen demand or $CBOD_5$.** "Carbonaceous biochemical oxygen demand" or "$CBOD_5$" means the measure of the ~~quantity of oxygen used by microorganisms in the aerobic oxidation of organic matter and other compounds containing carbon~~ amount of oxygen required by bacteria while stabilizing, digesting, or treating the organic matter under aerobic conditions over a five-day incubation period while in the presence of a chemical inhibitor to block nitrification. CBOD is commonly expressed in milligrams per liter (mg/L).

Subp. ~~14~~ 13. **Certificate of compliance.** "Certificate of compliance" means a document, written after a compliance inspection, certifying that a system is in compliance with applicable requirements at the time of the inspection.

Subp. ~~15~~ 14. **Certified statement.** "Certified statement" means a statement signed by a certified individual, apprentice, or qualified employee under chapter 7083, as published in the *State Register*, volume 31, page 1088, and as subsequently adopted, certifying that the licensed business or qualified employee completed work in accordance with applicable requirements.

Subp. ~~16~~ 15. **Cesspool.** "Cesspool" means an underground pit, receptacle, or seepage tank that receives sewage directly from a building sewer and leaches sewage into the surrounding soil, bedrock, or other soil materials. Cesspools include sewage tanks that were designed to be watertight, but subsequently leak below the designed operating depth.

Subp. ~~17~~ 16. **Clean sand.** "Clean sand" means a soil fill material required to be used in mounds. The standards for clean sand are outlined in part 7080.2220, subpart 3, item C.

Subp. ~~18~~ 17. **Commissioner.** "Commissioner" means the commissioner of the Pollution Control Agency.

Subp. ~~19~~ 18. **Compliance inspection.** "Compliance inspection" means an evaluation, investigation, inspection, or other such process for the purpose of issuing a certificate of compliance or notice of noncompliance.

~~Subp. 20. **Disinfection.** "Disinfection" means the process of destroying pathogenic microorganisms in sewage through the application~~

~~of ultraviolet light, chlorination, or ozonation.~~

Subp. ~~21~~ 19. **Distinct.** "Distinct" means a soil color that is not faint as described in subpart 29.

Subp. ~~22~~ 20. **Distribution box.** "Distribution box" means a device ~~designed~~ intended to distribute sewage tank effluent concurrently and equally by gravity to multiple segments of a soil ~~treatment and~~ dispersal system.

Subp. ~~23~~ 21. **Distribution device.** "Distribution device" means a device used to receive and transfer effluent from supply pipes to distribution pipes or downslope supply pipes, or both. These devices include, but are not limited to, drop boxes, valve boxes, distribution boxes, or manifolds.

Subp. ~~24~~ 22. **Distribution medium.** "Distribution medium" means the material used to ~~store and distribute sewage tank effluent within a soil treatment and dispersal system~~ provide void space in a dispersal component, through which effluent flows and is stored prior to infiltration. Distribution media includes, but is not limited to, drainfield rock, polystyrene beads, chambers, and gravelless pipe.

Subp. ~~25~~ 23. **Distribution pipes.** "Distribution pipes" means perforated pipes that distribute effluent within a distribution medium.

~~Subp. 26. **Dosing chamber.** "Dosing chamber" means a tank or separate compartment following the sewage tank that serves as a reservoir for a pump. Dosing chambers in a separate tank are considered a septic system tank under *Minnesota Statutes*, section 115.55, subdivision 1, paragraph (o).~~

~~Subp. 27. **Drip dispersal system.** "Drip dispersal system" means a small diameter pressurized wastewater distribution system that can deliver small, precise doses of effluent to the soil surrounding the drip distribution piping.~~

Subp. ~~28~~ 24. **Drop box.** "Drop box" means a distribution device used for the serial gravity application of sewage tank effluent to a soil ~~treatment~~ dispersal system.

Subp. ~~29~~ 25. **Dwelling.** "Dwelling" means any building ~~or place used or intended to be used by human occupants as a singlefamily, multifamily, or seasonal residence with plumbing. Each family unit in a multifamily residence is considered one dwelling~~ with provision for living, sanitary, and sleeping facilities.

Subp. ~~30~~ 26. **Effluent screen.** "Effluent screen" means a device ~~that filters solid materials from sewage tanks as effectively as an outlet baffle before discharge to a soil treatment system~~ installed on the outlet piping of a septic tank for the purpose of retaining solids of a specific size.

Subp. ~~31~~ 27. **EPA.** "EPA" means the United States Environmental Protection Agency.

Subp. ~~32~~ 28. **Existing systems.** "Existing systems" means systems that have been previously inspected and approved by the local unit of government during installation. In addition, all operating systems installed before the adoption of a local permitting and inspection program are considered existing systems.

Subp. ~~33~~ 29. **Faint.** "Faint" means a soil color:

A. with the same hue as another soil color but that varies from the other color by two or less units of value and not more than one unit of chroma;

B. that differs from another soil color by one hue and by one or less units of value and not more than one unit of chroma; or

C. that differs from another soil color by two units of hue with the same value and chroma.

Subp. ~~34~~ 30. **Fecal coliform or FC.** "Fecal coliform" or "FC," for purposes of this chapter, means bacteria common to the digestive systems of ~~warmblooded animals~~ humans that are cultured in standard tests. Counts of these organisms are typically used to indicate potential contamination from sewage or to describe a level of disinfection, generally expressed in colonies per 100 mL.

Subp. ~~35~~ 31. **Fine sand.** "Fine sand" means a sand soil texture, as described in the Field Book for Describing and Sampling Soils, which is incorporated by reference in subpart 40, where more than 50 percent of the sand has a particle size range of 0.05 millimeters, sieve size 270, to 0.25 millimeters, sieve size 60.

Subp. ~~36~~ 32. **Flood fringe.** "Flood fringe" means that portion of the floodplain outside the floodway. Flood fringe is synonymous with the term "floodway fringe" used in flood insurance studies.

Subp. ~~37~~ 33. **Floodplain.** "Floodplain" means the area covered by a 100-year flood event along lakes, rivers, and streams as published in technical studies by local, state, and federal agencies, or in the absence of these studies, estimates of the 100-year flood boundaries and elevations as developed according to a local unit of government's floodplain or related land use regulations.

Subp. ~~38~~ 34. **Floodway.** "Floodway" means the bed of a wetland or lake, the channel of a watercourse, and those portions of the adjoining floodplain that are reasonably required to carry the regional flood discharge.

Subp. ~~39~~ 35. **Flow measurement.** "Flow measurement" means any method to accurately measure water or sewage flow, including, but not limited to, water meters, event counters, running time clocks, or electronically controlled dosing.

Subp. ~~40~~ 36. **Geomorphic description.** "Geomorphic description" means the identification of the landscape, landform, and surface morphometry of the proposed area of the soil treatment and dispersal system as described in the *Field Book for Describing and Sampling Soils*: Version 2.0 (2002), developed by the National Soil Survey Center and Natural Resources Conservation Service of the United States Department of Agriculture. The field book is incorporated by reference, is not subject to frequent change, and is available through the Minitex interlibrary loan system.

Subp. ~~41~~ 37. **~~Greywater~~ Graywater.** "~~Greywater~~ Graywater" means sewage that does not contain toilet wastes.

Subp. ~~42~~ 38. **~~Greywater~~ Graywater system.** "~~Greywater~~ Graywater system" means a system that receives, treats, and disperses only ~~greywater~~ graywater or other similar system as designated by the commissioner.

Subp. ~~43~~ 39. **Hazardous waste.** "Hazardous waste" means any substance that, when discarded, meets the definition of hazardous waste in *Minnesota Statutes*, section 116.06, subdivision 11.

Subp. ~~44~~ 40. **Holding tank.** "Holding tank" means a tank for storage of sewage until it can be transported to a point of treatment and dispersal. Holding tanks are considered a septic system tank under *Minnesota Statutes*, section 115.55~~, subdivision 1, paragraph (o)~~.

Subp. ~~45~~ 41. **Individual subsurface sewage treatment system or ISTS.** "Individual subsurface sewage treatment system" or "ISTS" means ~~a~~ an individual sewage treatment ~~and dispersal~~ system or part thereof, as set forth in *Minnesota Statutes*, sections 115.03 and 115.55, that ~~consists of~~ employs sewage tanks or other treatment devices with final discharge into the soil below the natural soil elevation or elevated final grade that are designed to receive a sewage ~~from three or fewer dwellings or other establishments with an average daily~~ design flow of ~~2,500~~ 5,000 gallons per day or less. ISTS includes the holding tanks and privies that serve these same facilities. ISTS does not include building sewers or other components regulated under chapter 4715 or collection systems.

Subp. ~~46~~ 42. **Inner wellhead management zone.** "Inner wellhead management zone" means the drinking water supply management area for a public water supply well that does not have a delineated wellhead protection area approved by the Department of Health under part 4720.5330.

Subp. ~~47~~ 43. **Invert.** "Invert" means the lowest point of a channel inside a pipe.

Subp. ~~48~~ 44. **Liquid capacity.** "Liquid capacity" means the liquid volume of a sewage tank below the invert of the outlet pipe or, for holding tanks and ~~dosing chambers~~ pump tanks, the liquid volume below the invert of the inlet.

Subp. ~~49~~ 45. **Lot.** "Lot" means a parcel of land in a plat recorded in the office of the county recorder or registrar of titles or a parcel of land created and conveyed, using a specific legal description, for a building site to be served by an ISTS.

Subp. ~~50~~ 46. **Management plan.** "Management plan" means a plan that requires the periodic examination, adjustment, testing, and other operational requirements to ~~maintain~~ meet system performance expectations, including a planned course of action in the event a system does not meet performance expectations.

Subp. ~~51~~ 47. **Matrix.** "Matrix" means the majority of the color in a soil horizon, as described in the *Field Book for Describing and Sampling Soils*, which is incorporated by reference in subpart ~~40~~ 36.

Subp. ~~52~~ 48. **Medium sand.** "Medium sand" means a sand soil texture, as described in the *Field Book for Describing and Sampling Soils*, which is incorporated by reference in subpart ~~40~~ 36, that ranges in size between 0.25 millimeters, sieve size 60, and 0.5 millimeters, sieve size 35.

Subp. ~~53~~ 49. **Mottles.** "Mottles" means the minority of the variegated colors in a soil horizon, as described in the *Field Book for Describing and Sampling Soils*, which is incorporated by reference in subpart ~~40~~ 36.

Subp. ~~54~~ 50. **Mound system.** "Mound system" means a soil treatment and dispersal system ~~with an absorption bed elevated above the original soil with clean sand to overcome soil limitations~~ designed and installed such that all of the infiltrative surface is installed above grade, using clean sand between the bottom of the infiltrative surface and the original ground elevation, utilizing pressure distribution and capped with suitable soil material to stabilize the surface and encourage vegetative growth.

Subp. ~~55~~ 51. **New construction.** "New construction" means installing or constructing a new ISTS or altering, extending, or adding capacity to a system that has been issued an initial certificate of compliance.

Subp. ~~56~~ 52. **Notice of noncompliance.** "Notice of noncompliance" means a document written and signed by a certified inspector after a compliance inspection that gives notice that an ISTS is not in compliance as specified under part 7080.1500.

~~Subp. 57. **O&G.** "O&G" means oil and grease, a component of sewage typically originating from foodstuffs such as animal fats or vegetable oils or consisting of compounds of alcohol or glycerol with fatty acids such as soaps and lotions, typically expressed in mg/L.~~

Subp. ~~58~~ 53. **Ordinary high water level.** "Ordinary high water level" of surface water has the meaning given in *Minnesota Statutes*, section 103G.005, subdivision 14.

Subp. ~~59~~ 54. **Original soil.** "Original soil" means naturally occurring soil that has not been cut, filled, moved, smeared, compacted, altered, or manipulated to the degree that ~~a different soil sizing factor is needed from natural soil conditions~~ the loading rate must be reduced from that associated with natural soil conditions.

Subp. ~~60~~ 55. **Other pit.** "Other pit" means any pit or other device designed to leach sewage effluent that is greater than 30 inches in height or has a bottom area loading rate of sewage greater than two gallons per square feet per day.

Subp. ~~61~~ 56. **Owner.** "Owner" means any person having possession of, control over, or title to property with an ISTS.

Subp. ~~62~~ 57. **Parent material.** "Parent material" means the ~~geologic material from which the soil was formed and is commonly differentiated from soil by the absence of soil structure and high color values~~ unconsolidated and chemically weathered geologic mineral or organic matter from which soils are developed by soil forming processes.

Subp. ~~63~~ 58. **Percolation rate.** "Percolation rate" means the rate of a drop of water infiltrating into a test hole as specified in part 7080.1720, subpart 6, item B.

Subp. 59. **Periodically saturated soil.** "Periodically saturated soil" means the highest elevation in the soil that is in a reduced chemical

state due to soil pores filled or nearly filled with water causing anaerobic conditions. Periodically saturated soil is determined by the presence of redoximorphic features in conjunction with other established indicators as specified in part 7080.1720, subpart 5, items E and F, or determined by other scientifically established technical methods or empirical field measurements acceptable to the permitting authority in consultation with the commissioner.

Subp. ~~64~~ 60. **Plastic limit.** "Plastic limit" means a soil moisture content ~~below which the soil may be manipulated for purposes of installing a soil treatment and dispersal system and~~ above which manipulation will cause compaction or smearing. The ~~soil moisture content at the~~ plastic limit can be measured by American Society for Testing and Materials, Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils, ASTM D4318 (2005). The standard is incorporated by reference, is available through the Minitex interlibrary loan system, and is not subject to frequent change.

Subp. ~~65~~ 61. **Pressure distribution.** "Pressure distribution" means a network of distribution pipes in which effluent is forced through orifices under pressure.

Subp. ~~66~~ 62. **Privy.** "Privy" means an aboveground structure with an underground cavity meeting the requirements of part 7080.2280 that is used for the storage or treatment and dispersal of toilet wastes, excluding water for flushing and ~~greywater~~ graywater. A privy also means a nondwelling structure containing a toilet waste treatment device.

~~Subp. 67. **Proprietary product.** "Proprietary product" means a sewage treatment or distribution technology, method, or material subject to a patent or trademark.~~

~~Subp. 68. **Public domain technology.** "Public domain technology" means a sewage treatment or distribution technology, method, or material not subject to a patent or trademark.~~

Subp. ~~69~~ 63. **Public waters.** "Public waters" means any public waters or wetlands defined in *Minnesota Statutes*, section 103G.005, subdivision 15, or identified as public waters or wetlands by the inventory prepared according to *Minnesota Statutes*, section 103G.201.

Subp. 64. **Pump tank.** "Pump tank" means a tank or separate compartment following the sewage tank that serves as a reservoir for a pump. A separate tank used as a pump tank is considered a septic system tank under *Minnesota Statutes*, section 115.55, subdivision 1, paragraph (o).

Subp. ~~70~~ 65. **Redoximorphic features.** "Redoximorphic features" means:

A. a color pattern in soil, formed by oxidation ~~or~~ and reduction of iron or manganese in saturated soil coupled with their removal, translocation, or accrual, which results in the loss (depletion) or gain (concentration) of mineral compounds compared to the matrix color; or

B. a soil matrix color controlled by the presence of ferrous iron. Redoximorphic features are described in part 7080.1720, subpart 5, item E.

Subp. ~~71~~ 66. **Replacement.** "Replacement" means the removal or discontinued use of any major portion of an ISTS and reinstallation of that portion of the system, such as reinstallation of a new sewage tank, holding tank, dosing chamber, privy, or soil ~~treatment and~~ dispersal system.

~~Subp. 72. **Seasonally saturated soil.** "Seasonally saturated soil" means the highest elevation in the soil that is in a reduced chemical state due to soil pores filled with water causing anaerobic conditions. Seasonally saturated soil is determined by the presence of redoximorphic features in conjunction with other established indicators as specified in part 7080.1720, subpart 5, items E and F, or determined by other scientifically established technical methods or empirical field measurements acceptable to the permitting authority in consultation with the commissioner.~~

Subp. ~~73~~ 67. **Seepage bed.** "Seepage bed" means a soil treatment and dispersal system, the absorption width of which is greater than three feet but no greater than 25 feet ~~and that has more than one distribution pipe~~.

Subp. ~~74~~ 68. **Seepage pit.** "Seepage pit" means an underground pit that receives sewage tank effluent and from which the liquid seeps into the surrounding soil and that meets the design requirements in part 7080.2550.

Subp. ~~75~~ 69. **Septage.** "Septage" means solids and liquids removed from an SSTS~~. Septage~~ and includes solids and liquids from cesspools, seepage pits, other pits, or similar systems or devices that receive sewage. Septage also includes solids and liquids that are removed from portable, incinerating, composting, holding, or other toilets. Waste from Type III marine sanitation devices, as defined in *Code of Federal Regulations*, title 33, section 159.3, and material that has come into contact with untreated sewage within the past 12 months is also considered septage.

Subp. ~~76~~ 70. **Septic tank.** "Septic tank" means any watertight, covered receptacle that is designed and constructed to receive the discharge of sewage from a building sewer or preceding tank, stores liquids ~~through a period of~~ for a detention~~, separates solids from liquid~~ period that provides separation of solids from liquid and digestion of organic matter, ~~digests organic matter,~~ and allows the effluent to discharge to a succeeding tank, treatment device, or soil ~~treatment and~~ dispersal system.

Subp. ~~77~~ 71. **Serial distribution.** "Serial distribution" means distribution of sewage tank effluent by gravity flow that progressively loads one section of a soil treatment and dispersal system to a predetermined level before overflowing to the succeeding section and does not place a dynamic head on the lower section of the soil treatment and dispersal system. The distribution medium ~~may function~~ is allowed to serve as a conveyance medium to the next section.

Subp. ~~78~~ 72. **Setback.** "Setback" means a separation distance measured horizontally.

Subp. ~~79~~ 73. **Sewage.** "Sewage" means waste produced by toilets, bathing, laundry, or culinary operations or the floor drains associated with these sources, and includes household cleaners, medications, and other constituents in sewage restricted to amounts normally used for domestic purposes.

Subp. ~~80~~ 74. **Sewage tank.** "Sewage tank" means a receptacle used in the containment or treatment of sewage and includes, but is not limited to, septic tanks, aerobic tanks, ~~lift stations, dosing chambers~~ pump tanks, and holding tanks. Requirements for sewage tanks are described in parts 7080.1900 to 7080.2030. Sewage tanks are considered a septic system tank in *Minnesota Statutes*, section 115.55, subdivision 1, paragraph (o).

Subp. ~~81~~ 75. **Sewage tank effluent.** "Sewage tank effluent" means the liquid that flows from a septic tank or other treatment device.

Subp. ~~82~~ 76. **Site.** "Site" means the area required for the proper location of the ISTS.

Subp. ~~83~~ 77. **Slope.** "Slope" means the vertical rise or fall divided by the horizontal distance, expressed as a percentage.

Subp. 78. **Soil dispersal area.** "Soil dispersal area" means the area required for the soil dispersal system, including spacing between individual units or zones.

Subp. 79. **Soil dispersal system.** "Soil dispersal system" means a system where sewage effluent is dispersed into the soil for treatment by absorption and filtration and includes, but is not limited to, trenches, seepage beds, at-grade systems, mound systems, and drip dispersal systems.

Subp. ~~84~~ 80. **Soil texture.** "Soil texture" means the soil particle size classification and particle size distribution as specified in the Field Book for Describing and Sampling Soils, incorporated by reference in subpart ~~40~~ 36.

~~Subp. 85. **Soil treatment area.** "Soil treatment area" means the area required for the soil treatment and dispersal system, including spacing between individual units or zones.~~

~~Subp. 86. **Soil treatment and dispersal system.** "Soil treatment and dispersal system" means a system where sewage effluent is treated and dispersed into the soil by percolation and filtration and includes, but is not limited to, trenches, seepage beds, atgrade systems, mound systems, and drip dispersal systems.~~

Subp. ~~87~~ 81. **Subsoil.** "Subsoil" means a soil layer that has a moist color value of 3.5 or greater and has undergone weathering and soil formation processes.

Subp. ~~88~~ 82. **Subsurface sewage treatment system or SSTS.** "Subsurface sewage treatment system" or "SSTS" is either an individual subsurface sewage treatment system as defined in subpart 45 or a midsized subsurface sewage treatment system as defined in part 7081.0020, subpart ~~3~~ 4, as published in the *State Register*, volume 31, page 1064, and as subsequently adopted, as applicable.

Subp. ~~89~~ 83. **Supply pipe.** "Supply pipe" means a nonperforated pipe, the purpose of which is to transport sewage tank effluent.

Subp. ~~90~~ 84. **Systems in shoreland areas or wellhead protection areas or systems serving food, beverage, or lodging establishments or SWF.** "Systems in shoreland areas or wellhead protection areas or systems serving food, beverage, or lodging establishments" or "SWF" means the following three categories of systems:

A. SSTS constructed in shoreland areas where land adjacent to public waters has been designated and delineated as shoreland by local ordinance as approved by the Department of Natural Resources;

B. SSTS constructed in wellhead protection areas regulated under *Minnesota Statutes*, chapter 103I; and

C. SSTS serving food, beverage, and lodging establishments that are required to obtain a license under *Minnesota Statutes*, section 157.16, subdivision 1, including manufactured home parks and recreational camping areas licensed according to *Minnesota Statutes*, chapter 327.

Subp. ~~91~~ 85. **Toilet waste.** "Toilet waste" means waste commonly disposed of in toilets, including fecal matter, urine, toilet paper, and water used for flushing.

Subp. ~~92~~ 86. **Toilet waste treatment devices.** "Toilet waste treatment devices" means other toilet waste apparatuses including incinerating, composting, biological, chemical, recirculating, or holding toilets or portable restrooms.

Subp. ~~93~~ 87. **Topsoil.** "Topsoil" means the natural, in-place organically enriched soil layer with a color value of less than 3.5.

Subp. ~~94~~ 88. **Topsoil borrow.** "Topsoil borrow" means a loamy soil material having:

A. less than five percent material larger than two millimeters, No. 10 sieve;

B. no material larger than 2.5 centimeters;

C. a moist color value of less than 3.5 ~~or less~~; and

D. adequate nutrients and pH to sustain healthy plant growth.

~~Subp. 95. **TN.** "TN" means total nitrogen, typically expressed in mg/L.~~

~~Subp. 96. **Total suspended solids or TSS.** "Total suspended solids" or "TSS" means solids that are in suspension in water and that are removable by laboratory filtering.~~

~~Subp. 97. **TP.** "TP" means total phosphorus, typically expressed in mg/L.~~

Subp. ~~98~~ 89. **Trench.** "Trench" means a soil treatment and dispersal system, the absorption width of which is 36 inches or less.

Subp. ~~99~~ 90. **Valve box.** "Valve box" means a watertight structure designed for alternate distribution of sewage tank effluent to segments

of a soil treatment system.

Subp. ~~100~~ 91. **Vertical separation.** "Vertical separation" means the vertical measurement of unsaturated soil or sand between the bottom of the distribution medium and the ~~seasonal~~ periodically saturated soil level or bedrock.

Subp. ~~101~~ 92. **Watertight.** "Watertight" means constructed so that no liquid can get into or out of a device except through designed inlets and outlets.

Subp. ~~102~~ 93. **Wellhead protection area.** "Wellhead protection area" means the surface and subsurface area surrounding a well or well field that supplies a public water system, through which contaminants are likely to move toward and reach the well or well field as regulated under chapter 4720. For the purposes of this chapter, wellhead protection area is that area bounded by the drinking water supply management area as regulated under chapter 4720.

~~**7080.1150 ADVISORY COMMITTEE.**~~

~~Subpart 1. **Establishment.** An advisory committee on subsurface sewage treatment systems is established.~~

~~Subp. 2. **Duties.** The committee shall, subject to the approval of the commissioner, review and advise the agency on:~~

~~A. revisions to chapters 7080 to 7083, as published in the *State Register*, volume 31, pages 10231101, and as subsequently adopted, and legislation relating to SSTS;~~

~~B. technical data relating to SSTS;~~

~~C. a technical manual on SSTS;~~

~~D. educational materials and programs for SSTS;~~

~~E. the administration of standards and ordinances pertaining to SSTS at the state and local level;~~

~~F. the product registration and renewal process;~~

~~G. development of any product registration advisory panels that may be created; and~~

~~H. other SSTS activities considered appropriate by the committee.~~

~~Subp. 3. **Membership.** The committee consists of the following voting members of whom:~~

~~A. one must be a citizen of Minnesota, representative of the public;~~

~~B. one must be from the Minnesota Extension Service of the University of Minnesota;~~

~~C. six must be county administrators, such as zoning administrators, sanitarians, and environmental health specialists, each of whom administers an SSTS permitting or inspection program. The six administrators must be geographically distributed throughout the state;~~

~~D. one must be a municipal inspector who administers an SSTS permitting and inspection program;~~

~~E. one must be a township inspector who administers an SSTS permitting and inspection program;~~

~~F. six must be SSTS designated certified individuals as defined in part 7083.0020, as published in the *State Register*, volume 31, page 1079, and as subsequently adopted, who have geographic distribution throughout the state, with each certification category represented on the committee;~~

~~G. two must be elected public officials with members having geographic distribution throughout the state;~~

~~H. one must be from the Department of Natural Resources;~~

~~I. one must be from the Department of Labor and Industry; and~~

~~J. one must be a water well contractor.~~

~~Subp. 4. **Nonvoting members.** The following agencies and associations shall each have at least one nonvoting member to assist the advisory committee and to be advised, in turn, on matters relating to chapters 7080 to 7083, as published in the *State Register*, volume 31, pages 10231101, and as subsequently adopted: the agency, the United States Department of Agriculture Natural Resource Conservation Service, the Minnesota Association of Professional Soil Scientists, the Metropolitan Council, the Association of Minnesota Counties, the Minnesota Association of Townships, the League of Minnesota Cities, the Minnesota Society of Engineers, the Association of Small Cities, the Minnesota Association of Realtors, the Minnesota Environmental Health Association, SSTS suppliers, the Minnesota On-Site Wastewater Association, the American Society of Home Inspectors, the Minnesota Small Business Association, Hospitality Minnesota, and Minnesota Waters.~~

~~Subp. 5. **Appointment; terms.** All members must be appointed by the commissioner from recommendations by the named entities or organizations. All members serve fouryear terms, with terms staggered to maintain continuity. Voting members may serve a maximum of two consecutive terms, except by virtue of their office. If the voting member's attendance falls below 50 percent during the term, the appointed member loses membership status for the remaining term. The commissioner shall then appoint a replacement member for the remainder of the term from the recommendation offered by the affected entity or organization. In the case of a vacancy, the commissioner shall appoint a replacement member for the unexpired balance of the term. Administrators, inspectors, elected officials, and contractors must be bona fide residents of this state for at least three years before being appointed and must have at least three years' experience in their respective businesses or offices.~~

~~Subp. 6. **Procedural rules.** Robert's Rules of Order Newly Revised, Henry M. Robert (2000), must prevail at all meetings of the advisory committee. Robert's Rules of Order is incorporated by reference, is available through the Minitex interlibrary loan system, and is not subject to frequent change.~~

~~Subp. 7. **Quorum.** A quorum consists of nine voting members.~~

7080.1200 ADMINISTRATION OF DESIGN STANDARDS.

Subpart 1. **Administrative scope.** ISTS must be designed, constructed, and operated according to this chapter, except as modified through a local ordinance in compliance with chapter 7082, as published in the *State Register*, volume 31, page 1079, and as subsequently adopted, and *Minnesota Statutes*, section 115.55. ISTS must be designed, installed, inspected, pumped, serviced, and operated by licensed businesses meeting the qualifications in ~~chapter 7083~~ parts 7083.0070 to 7083.2040, as published in the State Register, volume 31, page 1088, and as subsequently adopted. ISTS must conform to all applicable state laws and rules.

Subp. 2. **Federal regulation.** SSTS that are designed to receive sewage or nonsewage from a two-family dwelling or greater or receive sewage or nonsewage from another establishment that serves more than 20 persons per day, are regulated under *Code of Federal Regulations*, title 40, parts 144 and 146.

Subp. 3. **Variance procedures.** The standards in this chapter are provided to be incorporated into a local ordinance according to chapter 7082, as published in the *State Register*, volume 31, page 1079, and as subsequently adopted, and *Minnesota Statutes*, section 115.55. Variance requests to the standards made by an owner or owner's agent must be issued or denied by the local unit of government. ~~Variances may not be issued by the local unit of government for part 7080.2150, subpart 2, items A to F.~~ Local units of government shall not issue variances for part 7080.2150, subpart 2, items A to D.

7080.1500 COMPLIANCE CRITERIA.

Subpart 1. **Treatment required.** Sewage discharged from a dwelling that is not served by a system issued a permit containing effluent and discharge limits or specific monitoring requirements by the agency must be treated according to applicable requirements.

Subp. 2. **Primitive ~~dwellings~~ structures.** ~~Greywater~~ Graywater from ~~dwellings~~ structures without plumbing that originated from hand-carried water must not be discharged directly to surface waters, drainageways, or poorly drained soils; in a manner or volume harmful to the environment or public health; or in a manner that creates a public health nuisance as determined by the local unit of government.

Subp. 3. **Compliance criteria for new construction.** An ISTS regulated under a current construction permit is considered compliant if it meets the applicable requirements of parts 7080.2150 to 7080.2400.

Subp. 4. **Compliance criteria for existing systems.** To be in compliance, an existing ISTS must meet the provisions of this subpart.

A. The ISTS must be protective of public health and safety. A system that is not protective is considered an imminent threat to public health or safety. At a minimum, a system that is an imminent threat to public health or safety is a system with a discharge of sewage or sewage effluent to the ground surface, drainage systems, ditches, or storm water drains or directly to surface water; systems that cause a reoccurring sewage backup into a dwelling or other establishment; systems with electrical hazards; or sewage tanks with unsecured, damaged, or weak maintenance hole covers ~~or weak lids~~. A determination of protectiveness for other conditions ~~may~~ must be made by a qualified employee inspector or licensed inspection business.

B. The ISTS must be protective of groundwater. A system that is not protective is considered a system failing to protect groundwater. At a minimum, a system that is failing to protect groundwater is a system that is a seepage pit, cesspool, drywell, leaching pit, or other pit; a system with less than the required vertical separation distance described in items D and E; and a system not abandoned in accordance with part 7080.2500. A determination of ~~protectiveness~~ the threat to groundwater quality for other conditions ~~may~~ must be made by a qualified employee or licensed inspection business.

C. The ISTS must be operated, meet performance standards, and be managed according to its ~~management plan,~~ operating permit~~, monitoring and mitigation plan, or local ordinance requirements~~.

D. ISTS built after March 31, 1996, or in an SWF area as defined under part 7080.1100, subpart 84, shall have a three-foot vertical separation or a vertical separation based on applicable requirements. The local ordinance ~~may~~ must not allow ~~no~~ more than a 15 percent reduction in the vertical separation distance to account for settling of sand or soil, normal variation of measurements, and interpretations of the limiting layer conditions.

E. ISTS built before April 1, 1996, in ~~non-SWF~~ areas that are not SWF areas as defined under part 7080.1100, subpart 84, must have at least two feet of vertical separation.

F. The vertical separation measurement for items D and E shall be measured outside the area of system influence in an area of similar soil.

Subp. 5. **Compliance criteria for systems with a flow of greater than 2,500 gallons per day.** In addition to the requirements under subpart 4, systems designed under part 7080.2150, subpart 4, item A or B, must demonstrate that the additional nutrient reduction component required under those items is in place and functioning.

Subp. ~~5~~ 6. **Compliance criteria for systems receiving replacement components.** Components of an existing system that result in the system being in noncompliance must be repaired or replaced according to part 7082.0100, subpart 1, as published in the State Register, volume 31, page 1081, and as subsequently adopted. The repaired or replacement components must meet technical standards and criteria for new construction according to local ordinance. The remaining components of the existing system must result in the system being in

compliance with subpart 4.

7080.1550 ACCEPTABLE AND PROHIBITED DISCHARGES.

Subpart 1. **Sewage.** This chapter provides design standards for ISTS that exclusively receive sewage. If ISTS receive both sewage and nonsewage, the requirements of this chapter and requirements governing the nonsewage portion of the waste apply.

Subp. 2. **System influent.** Footing or roof drainage and chemically treated hot tub and pool water must not be discharged into any part of a system. Products containing hazardous chemicals and hazardous waste must not be discharged to a system other than in normal amounts of household products and cleaners designed for household use. Substances not intended for use in household cleaning, including but not limited to solvents, pesticides, flammables, photo finishing chemicals, paint, and dry-cleaning chemicals must not be discharged to the system. Other unused products or substances, or unused medicines, must not be discharged to the system solely as a method of disposal. Floor drains from garages serving dwellings must not be connected to the system.

~~**7080.1600 PRODUCT REVIEW AND REGISTRATION PROCESS.**~~

~~Subpart 1. **General.**~~

~~A. The commissioner shall develop a product review and registration process and maintain a list of registered sewage treatment and distribution products for SSTS.~~

~~B. The commissioner shall develop recommended standards and guidance to assist local units of government in permitting different types of sewage treatment technologies and sewage distribution technologies, including the following four categories:~~

~~(1) public domain treatment technologies, such as sand filters;~~

~~(2) proprietary treatment technologies, such as manufactured aerobic treatment systems;~~

~~(3) public domain distribution technologies, such as drainfield rock or generic drainfield rock substitutes; and~~

~~(4) proprietary distribution technologies, such as gravelless distribution products and drip dispersal products.~~

~~C. Sewage technologies shall have standards described in this chapter or agency recommended standards and guidance before local units of government may permit them. Recommended standards and guidance must include information and detail, such as application, design, installation, operation, monitoring and maintenance, and performance expectations, and sources of the information.~~

~~Subp. 2. **Proprietary treatment products; certification and registration.**~~

~~A. Manufacturers shall register their proprietary products with the commissioner before the local unit of government may permit their use.~~

~~B. To qualify for product registration, manufacturers desiring to sell or distribute proprietary treatment products shall:~~

~~(1) verify product performance through testing using the testing protocol established in Table I in part 7080.1610 and register their product with the commissioner using the process described in parts 7080.1600 to 7080.1660;~~

~~(2) report test results of influent and effluent sampling obtained throughout the testing period, including normal and stress loading phases, for evaluation of constituent reduction according to Table II in part 7080.1615;~~

~~(3) demonstrate product performance according to Table III in part 7080.1620. All 30day averages and geometric means obtained throughout the test period must meet the identified threshold values to qualify for registration at that threshold level; and~~

~~(4) verify bacteriological reduction according to part 7080.1635, for registration at Levels A and B in Table III in part 7080.1620.~~

~~C. Manufacturers verifying product performance through testing according to the following standards or protocols shall have product testing conducted by a qualified, thirdparty testing facility. Product performance testing shall be consistent with the following:~~

~~(1) National Sanitation Foundation (NSF) International, Residential Wastewater Treatment Systems, Standard 40 (July 2000). The standard is incorporated by reference, is available through the Minitex interlibrary loan system, and is not subject to frequent change;~~

~~(2) Environmental Protection Agency (EPA) and National Sanitation Foundation (NSF), Protocol for the Verification of Wastewater Treatment Technologies (April 2001). The protocol is incorporated by reference, is available through the Minitex interlibrary loan system, and is not subject to frequent change;~~

~~(3) Environmental Protection Agency (EPA) Environmental Technology Verification (ETV) Program, Protocol for the Verification of Residential Wastewater Treatment Technologies for Nutrient Reduction (November 2000). The protocol is incorporated by reference, is available through the Minitex interlibrary loan system, and is not subject to frequent change;~~

~~(4) European Committee for Standardization (CEN), Small Wastewater Treatment Systems for up to 50 PT Part 3: Packaged and/or Site Assembled Domestic Wastewater Treatment Plants, EN 125663 (October 2003). The standard is incorporated by reference, is available through the Minitex interlibrary loan system, and is not subject to frequent change;~~

~~(5) other equivalent protocols and standards consistent with the abovereferenced standards and protocol to verify product performance as approved by the commissioner; and~~

~~(6) protocol for bacteriological reduction described in part 7080.1635.~~

~~D. Treatment levels used in part 7080.1620 are not intended to be applied as field compliance standards. Their intended use is to establish treatment product performance in a product testing setting under established protocols by qualified testing entities.~~

7080.1610 TESTING REQUIREMENTS FOR PROPRIETARY TREATMENT PRODUCTS.

The testing protocols in this part are incorporated by reference under part 7080.1600, subpart 2, item C.

TABLE I

Treatment component/ sequence category	Required testing protocol
Category A: Designed to treat sewage with strength typical of a residential source when septic tank effluent is anticipated to be equal to or less than treatment Level C (Table III, part 7080.1620)	NSF Residential Wastewater Treatment Systems, Standard 40, or CEN European Standard, EN125663
Category B: Designed to treat highstrength sewage when septic tank effluent is anticipated to be greater than treatment Level C (Table III, part 7080.1620), including restaurants, grocery stores, minimarts, group homes, medical clinics, residences, etc.	EPA/NSF Protocol for the Verification of Wastewater Treatment Technologies, EPA/ETV Protocol for the Verification of Residential Wastewater Treatment Technologies for Nutrient Reduction, or equivalent
Total nitrogen and phosphorus reduction in Categories A and B	EPA Environmental Technology Verification, Protocol for the Verification of Residential Wastewater Treatment Technologies for Nutrient Reduction, or equivalent

7080.1615 TEST RESULTS REPORTING REQUIREMENTS FOR PROPRIETARY TREATMENT PRODUCTS.

TABLE II

Treatment component/ sequence category	Testing results reported
Category A: Designed to treat sewage with strength typical of a residential source when septic tank effluent is anticipated to be equal to or less than treatment Level C (Table III, part 7080.1620)	Report test results for influent and effluent sampling obtained throughout the testing period for evaluation of consistent reduction for the parameters $CBOD_5$ and TSS: - Average - Minimum - Median - 30day average (each month) - Standard deviation - Maximum - Interquartile range.
	For bacteriological reduction performance, report fecal coliform test results of

	influent and effluent sampling by geometric mean from samples drawn within 30day or monthly calendar periods, obtained from a minimum of three samples per week throughout the testing period. See part 7080.1635. Test report must also include the individual results of all samples drawn throughout the test period.
Category B: Designed to treat high strength sewage when septic tank effluent is anticipated to be greater than treatment Level C (Table III, part 7080.1620), including restaurants, grocery stores, minimarts, group homes, medical clinics, residences, etc.	Report all individual test results and full test average values of influent and effluent sampling obtained throughout the testing period for $CBOD_5$, TSS, and oil and grease. Report the treatment capacity of the product tested in pounds per day for $CBOD_5$.
Total nitrogen and phosphorus reduction in Categories A and B	Report test results on all required performance criteria according to the format prescribed in the test protocol described in Table I, part 7080.1610.

7080.1620 PRODUCT PERFORMANCE REQUIREMENTS FOR PROPRIETARY TREATMENT PRODUCTS.

TABLE III

Treatment component/ sequence category	Product performance requirements					
Category A: Designed to treat sewage with strength typical of a residential source when septic tank effluent is anticipated to be equal to or less than treatment Level C.	Treatment system performance testing levels					
	Level	Parameters				
		$CBOD_5$ (mg/L)	TSS (mg/L)	O&G (mg/L)	FC (#/100ml)	Nutrient (mg/L)
	A	15	15	--	1,000	--
	B	25	30	--	10,000	--
	C	125	80	20	--	--
	TN	--	--	--	--	20
	TP	--	--	--	--	2

Values for Levels A and B are 30day values (averages for $CBOD_5$, TSS, and geometric mean for FC). All 30day averages throughout the test period must meet these values in order to be

	registered at these levels. Values for Levels C, TN, and TP are derived from full test averages.
Category B: Designed to treat highstrength sewage when septic tank effluent is anticipated to be greater than treat ment Level C, including restaurants, grocery stores, minimarts, group homes, medical clinics, residences, etc.	All of the following requirements must be met: (1) all full test averages must meet Level C; and (2) the treatment capacity of the product tested in pounds per day for $CBOD_5$ must be reported.
Total nitrogen and phosphorus reduction in Categories A and B	Test results must establish product performance effluent quality meeting Levels TN and TP, when presented as the full test average.

7080.1625 PROPRIETARY TREATMENT PRODUCTS REGISTRATION; PROCESS AND REQUIREMENTS.

A. Manufacturers shall register their proprietary treatment products with the commissioner by submitting a complete application in the format prescribed by the commissioner, including:

(1) the manufacturer's name, mailing address, street address, and telephone number;

(2) the contact individual's name, title, mailing address, street address, and telephone number. The contact individual must be a company official with the authority to represent the manufacturer in this capacity;

(3) the name, including specific brand and model, of the proprietary treatment product;

(4) a description of the function of the proprietary treatment product along with any known limitation of the use of the product;

(5) product description and technical information, including process flow drawings and schematics, materials and characteristics, component design specifications, design capacity, volumes and flow assumptions and calculations, components, dimensioned drawings, and photos;

(6) for treatment systems in Category B, daily capacity of the model or models provided in pounds per day of $CBOD_5$;

(7) siting and installation requirements;

(8) a detailed description, procedure, and schedule of routine service and system maintenance events;

(9) estimated operational costs for the first five years of the treatment component's life including estimated annual electricity usage and routine maintenance costs, including replacement of parts;

(10) identification of information requested to be protected from disclosure of trade secrets or confidential business information;

(11) copies of product brochures and manuals, such as sales, promotional, design, installation, operation, and maintenance materials and homeowner instructions;

(12) the most recently available product test protocol and results report;

(13) all available product testing results, including a listing of state approvals and denials;

(14) a signed and dated certification by the manufacturer's authorized senior executive or authorized agent specifically including the following statement: "I certify that I represent (INSERT MANUFACTURING COMPANY HERE) and I am authorized to prepare or direct the preparation of this application for registration. I attest, under penalty of law, that this document and all attachments are true, accurate, and complete. I understand and accept that the product testing results reported in this application for registration are the parameters and values to be used for determining conformance with treatment system performance testing levels established in *Minnesota Rules*, part 7080.1620.";

(15) a signed and dated certification from the testing entity including the statement: "I certify that I represent (INSERT TESTING ENTITY NAME) and I am authorized to report the testing results for this proprietary product. I attest, under penalty of law, that the report about the test protocol and results is true, accurate, and complete."; and

(16) a technology review fee if allowed by law.

B. Manufacturers shall submit each proprietary product for registration to the commissioner. Products within a single series or model line, sharing distinct similarities in design, materials, and capabilities, may be registered under a single application, consistent with their test protocols for the certification of other products within a product series. Products outside of the series or model line must be registered under separate applications.

C. Upon receipt of the application, the commissioner shall, within 60 days:

(1) review the application and verify the application for compliance with item A;

(2) if the application is not in compliance with item A, return the application for resubmittal with the requested information for full compliance with item A; and

(3) if the application is complete and the commissioner determines that the product meets or exceeds all applicable protocols, the commissioner shall place the product on the list of registered treatment devices.

D. Registrations are valid for up to three years, expiring on December 31 of the third year of registration, unless the product is recalled for any reason, found to be defective, or no longer available.

E. To renew technology registration, a manufacturer shall:

(1) submit a request for renewal of product registration at least 30 days before the current registration expires, using the form or in the format prescribed by the commissioner;

(2) submit the results of retesting if the product has completed retesting according to the protocol required for registration and a report from the testing entity has been issued since initial registration or previous renewal. Renewal must be based on the most recent test results; and

(3) provide an affidavit to the commissioner verifying whether the product has changed over the previous three years. If the product has changed, the affidavit must include a full description of the changes. If the product has changed in a way that affects performance, the product may not be renewed and must fulfill the requirements for initial registration.

F. As part of the product registration renewal, the commissioner shall:

(1) request field assessment comments from local units of government no later than October 31 for product renewal. The comments may include concerns about a variety of field assessment issues, including product function, product reliability, product performance, and problems arising from operation and maintenance;

(2) discuss with the Technical Advisory Panel of the ISTS Advisory Committee established under part 7080.1150 any field assessment information that may impact product registration renewal;

(3) notify the manufacturer of any product to be discussed with the Technical Advisory Panel, prior to discussion with the Technical Advisory Panel, regarding the nature of comments received; and

(4) renew the product registration, unless the manufacturer does not apply for renewal or the commissioner, after deliberation with the Technical Advisory Panel, concludes product registration renewal should not be given or should be delayed until the manufacturer submits information that satisfactorily answers concerns and questions.

G. The commissioner shall maintain a list of proprietary treatment products meeting the registration requirements established in this chapter. The product registration is a condition of approval for use.

H. Manufacturers shall have readily accessible information for designers, regulators, systems owners, and other interested parties about their product, including but not limited to:

(1) product manuals;

(2) design instructions;

(3) installation instructions;

(4) information regarding operation and maintenance;

(5) homeowner instructions; and

(6) a list of representatives and manufacturercertified service providers, if any.

7080.1630 TRANSITION FROM PREVIOUS REQUIREMENTS FOR AEROBIC TANK TREATMENT SYSTEMS AND OTHER TREATMENT SYSTEMS TO NEW REGISTERED LIST.

A. The use of aerobic tank treatment systems as specified in Minnesota Rules 2005, chapter 7080, and other advanced treatment technologies may be used for 18 months after the effective date of this chapter.

B. After 18 months after the effective date of this chapter, only those products registered under this chapter may be used as directed in registration guidance documents.

C. To be registered, manufacturers of aerobic tank treatment systems shall apply for product registration. Aerobic tank treatment systems must meet all other requirements established in this chapter for registration.

D. Manufacturers of aerobic tank treatment system products shall meet all other requirements established in this chapter for product registration.

7080.1635 BACTERIOLOGICAL REDUCTION.

Subpart 1. **Scope.** This part establishes the requirements for registering bacteriological reduction processes.

Subp. 2. **Verification.** Manufacturers shall, for the purpose of product registration as described in parts 7080.1605 to 7080.1625 for meeting treatment Level A or B, verify bacteriological reduction performance by sampling and testing for fecal coliform.

Subp. 3. **Testing process.** All test data submitted for product registration must be produced by a qualified, thirdparty testing organization. Bacteriological reduction performance requirements must be determined while the treatment product or sequence is tested according to the NSF Standard 40 testing protocol, or other equivalent commissionerapproved testing protocol. The tester must:

A. collect samples from both the influent and effluent streams and identify the treatment performance achieved by the full treatment process, component, or sequence;

B. obtain influent characteristics within the range of 10^6–10^8 fecal coliform/100 mL calculated as 30-day geometric means during the test;

C. test the influent to any disinfection unit and report flow rate, pH, temperature, and turbidity at each occasion of sampling performed in item D;

D. obtain samples for fecal coliform analysis during both design loading and stress loading periods, as follows:

(1) grab samples shall be collected and analyzed from both the influent and effluent on three separate days of the week; and

(2) each set of influent and effluent grab samples must be taken from a different dosing time frame (morning, afternoon, or evening) so that samples have been taken from each dosing time frame by the end of the week;

E. conduct analyses for fecal coliform according to Standard Methods for the Examination of Water and Wastewater, prepared and published jointly by the American Public Health Association, American Water Works Association, and Water Environment Federation (1998). The standard methods are incorporated by reference, are available through the Minitex interlibrary loan system, and are subject to frequent change;

F. report the geometric mean of fecal coliform test results from all samples taken within 30-day or monthly calendar periods;

G. report the individual results of all samples taken throughout the test period for design loading and stress loading; and

H. report all maintenance and servicing conducted during the testing period, such as instances of cleaning an ultraviolet lamp or replenishment of chlorine chemicals.

Subp. 4. **Disinfection.** Manufacturers may register products that use disinfection in treatment Levels A and B or products that use disinfection may be registered by manufacturers as a component of the process in treatment Level A or B.

7080.1640 DISTRIBUTION MEDIUM; CERTIFICATION AND REGISTRATION.

A. If drainfield rock is to be used as the distribution medium, it must:

(1) be insoluble, durable rock;

(2) be between three-fourths inch and 2-1/2 inches in size;

(3) have no more than five percent by weight able to pass through a threefourths inch sieve;

(4) have no more than one percent by weight able to pass through a No. 200 sieve; and

(5) have no more than five percent by weight of materials greater than 2-1/2 inches in size.

B. For nonrock distribution media, manufacturers shall register the distribution media, including gravelless distribution media and subsurface drip dispersal products, with the commissioner before the local unit of government may permit their use.

C. Manufacturers desiring to sell distribution media shall certify that the media meet the standards established in this part and register the media with the commissioner using the process in part 7080.1645.

D. Distribution media must:

(1) be constructed or manufactured from materials that are nondecaying and nondeteriorating and do not leach chemicals when exposed to sewage and the subsurface soil environment;

(2) provide liquid storage volume at least equal to the storage volume provided within the 30 percent void space in a 12-inch layer of drainfield rock in a drainfield-rock-filled distribution system. The storage volume must be established by the distribution medium, system design, and installation and must be maintained for the life of the system. This requirement may be met on a lineal foot basis or on an overall system design basis;

(3) provide suitable effluent distribution and infiltration rate to the absorption area at the soil interface; and

(4) maintain the integrity of the trench or bed. The material used, by its nature and manufacturerprescribed installation procedure, must withstand the physical forces of the soil sidewalls, soil backfill, and weight of equipment used in the backfilling.

E. Subsurface drip dispersal products must:

(1) be warrantied by the manufacturer for use with sewage and for resistance to root intrusion;

(2) incorporate emitters with a maximum nominal rated discharge of 1.3 gallons per hour. Emitter discharge rate may be controlled by use of pressurecompensating emitters or with a pressure regulator; and

(3) be colorcoded purple to identify that the pipe contains nonpotable water from a sewage source.

7080.1645 PROPRIETARY DISTRIBUTION PRODUCTS; PROCESS AND REQUIREMENTS.

Subpart 1. **Proprietary media.** Manufacturers shall obtain registration of their proprietary media with the commissioner by submitting a complete application in the format prescribed by the commissioner, including:

A. the manufacturer's name, mailing address, street address, and telephone number;

B. the contact individual's name, title, mailing address, street address, and telephone number. The contact individual must be vested with the authority to represent the manufacturer in this capacity;

C. the name, including specific brand and model, of the proprietary distribution product;

D. a description of the function of the distribution medium along with any known limitations on its use;

E. a description of the medium and technical information, including schematics; materials and characteristics; component design specifications; design capacity; volumes and flow assumptions and calculations; components; and dimensioned drawings, photos, application, and use;

F. siting and installation requirements;

G. a detailed description, procedure, and schedule of routine service and system maintenance events;

H. identification of information requested to be protected from disclosure of trade secrets;

I. copies of product brochures and manuals, such as sales, promotional, design, installation, operation, and maintenance materials and homeowner instructions;

J. a quantitative description of the actual exposed trench-bottom and sidewall absorption area or sizing criteria for drip dispersal systems for each model seeking registration;

K. all available product testing results, including a listing of state approvals and denials;

L. a statement from a licensed professional engineer that certifies the technology meets the standards established in part 7080.1640;

M. a signed and dated certification by the manufacturer's senior executive or agent, specifically including the following statement: "I certify that I represent (INSERT MANUFACTURING COMPANY HERE) and I am authorized to prepare or direct the preparation of this application for registration. I attest, under penalty of law, that this document and all attachments are true, accurate, and complete.";

N. a signed and dated certification from the licensed professional engineer including the statement: "I certify that I represent (INSERT PROFESSIONAL ENGINEERING FIRM NAME) and that I am authorized to certify the performance for the proprietary distribution product presented in this application. I attest, under penalty of law, that the technology report is true, accurate, and complete."; and

O. a technology review fee if allowed by law.

Subp. 2. **Proprietary media products.** Manufacturers shall submit proprietary media products for registration to the commissioner. Products within a single series or model line sharing distinct similarities in design, materials, and capabilities may be registered under a single application. Products outside of the series or model line must be registered under separate applications.

Subp. 3. **Commissioner review.** Upon receipt of the application, the commissioner shall:

A. review the application and verify the application for compliance with subpart 1;

B. if the application is not in compliance with subpart 1, return the application for resubmittal with the requested information for full compliance with subpart 1; or

C. if the application is complete and the commissioner determines that the product meets or exceeds all applicable protocols, the commissioner shall place the product on the list of distribution products.

Subp. 4. **Duration of registration.** Registrations are valid for up to three years, expiring on December 31 of the third year of registration, unless the product is recalled for any reason, found to be defective, or no longer available.

Subp. 5. **Renewal.** To renew a proprietary distribution product registration, a manufacturer shall:

A. submit a request for renewal of product registration at least 30 days before the current registration expires, using the form or in the format prescribed by the commissioner; and

B. provide an affidavit to the commissioner verifying whether the product has changed over the previous three years. If the product has changed, the affidavit must include a full description of the changes. If the product has changed in a way that affects performance, the product may not be renewed and must fulfill the requirements for initial registration.

Subp. 6. **Commissioner review.** As part of the product registration renewal, the commissioner shall:

A. request field assessment comments from local units of government no later than October 31 for product renewal. The comments may include concerns about a variety of field assessment issues, including product function, product reliability, and problems arising from operation and maintenance;

B. discuss with the Technical Advisory Panel of the ISTS Advisory Committee established under part 7080.1150 any field assessment information that may impact product registration renewal;

C. notify the manufacturer of any product to be discussed with the Technical Advisory Panel, prior to discussion with the panel, regarding the nature of comments received; and

D. renew, modify, or deny the product registration based on information received during the renewal process. If the manufacturer does not apply for renewal or the commissioner, after deliberation with the Technical Advisory Panel, concludes product registration renewal

should not be given or should be delayed until the manufacturer submits information that satisfactorily answers concerns and questions, product registration shall be denied.

Subp. 7. **List.** The commissioner shall maintain a list of proprietary distribution products meeting the registration requirements established in this part. The product registration is a condition of approval for use.

Subp. 8. **Manufacturer information.** Manufacturers shall have readily accessible information for designers, regulators, system owners, and other interested parties about their product, including but not limited to:

A. product manuals;

B. design instructions;

C. installation instructions;

D. information regarding operation and maintenance;

E. system owner instructions; and

F. a list of representatives and manufacturercertified service providers, if any.

7080.1650 TRANSITION FROM PREVIOUS REQUIREMENTS FOR DISTRIBUTION PRODUCTS TO NEW REGISTERED LIST.

A. The distribution products specified in Minnesota Rules 2005, chapter 7080, may be used 18 months after the effective date of this chapter.

B. After 18 months after the effective date of this chapter, only those products registered under this chapter may be used as directed in registration guidance documents.

C. To be registered, manufacturers of proprietary distribution products shall apply for product registration.

D. Distribution products shall meet all other requirements for registration established in this chapter.

7080.1655 PRODUCT DEVELOPMENT PERMITS.

Subpart 1. **Local government may issue.** A local unit of government may issue a product development permit (PDP) for any proprietary treatment component or sequence. To protect public health during the development period, a PDP may be applied to a Type I, Type II, or Type III system, as described under parts 7080.2200 to 7080.2300. A PDP may also be applied to a Type IV system, as described under part 7080.2350, if treatment levels of the technologies meet or exceed requirements in the operating permit. The product under development may then be added to the treatment system allowing the product developer to gather data about the product's performance in the field. The PDP allows product developers to explore and develop new technologies prior to product testing and registration under parts 7080.1605 to 7080.1625. The PDP is not an alternative to testing and registration.

Subp. 2. **Application contents.** An application for a PDP must include:

A. proof of an existing conforming system in compliance with all local requirements or a permit for a conforming system. The conforming system must be installed in its entirety before the PDP becomes valid;

B. a description of the product under development, including performance goals and a description of how the system will be used to treat sewage;

C. documentation of financial assurance that will cover the correction of any potential public health threats or environmental damage resulting from the use of the product under development. Instruments of financial assurance include: an irrevocable letter of credit in the amount required by the local unit of government issued by an entity authorized to issue letters of credit in Minnesota; cash or a security deposit payable to the local unit of government in the amount required by the local unit of government; or any other financial assurance that satisfies the local unit of government;

D. documentation signed by the owner of the proposed product development site allowing access to the local unit of government and the agency and its employees or agents for inspection of the site;

E. an agreement to obtain all other required permits;

F. a declaration that the applicant meets all state requirements; and

G. other information required by the local unit of government.

Subp. 3. **Additional requirements.**

A. The local unit of government may stipulate additional requirements for a PDP necessary to ensure the performance of the conforming system, including, but not limited to, providing performance data to the local unit of government.

B. The system owner shall consent in writing to allow the manufacturer access to the system for the duration of the permit.

C. The product tester shall agree in writing to contact utility companies before excavation.

D. The manufacturer and product tester shall agree in writing to hold harmless, indemnify, and defend the agency and local unit of government from any conduct by the manufacturer or product tester that causes harm or injury to the site owner's property and indemnifies the agency and local unit of government from such claims.

Subp. 4. **PDP required for each site.** A PDP is a sitespecific permit. Product development at multiple sites requires a PDP for each

~~site.~~

~~Subp. 5. **Product developer has control.** During the term of the PDP, product development, testing, and sampling are under the full control of the product developer and all data collected is considered proprietary information.~~

~~Subp. 6. **PDP duration.** A PDP is valid for one year and may be renewed by the local unit of government.~~

~~Subp. 7. **End of PDP period.** The product development period is over when the original PDP or any subsequently renewed permits have expired. At that time, the product developer shall, at the direction of the local unit of government, remove the product under development from the site, restore the real property to its original condition, and reestablish all appropriate plumbing and power connections for the conforming system. The developer may also subject the product to performance testing described in parts 7080.1600, subpart 2, and 7080.1645, subpart 1, to allow the product to be eligible for product registration with the agency.~~

~~Subp. 8. **Revocation or amendment of PDP.** The local unit of government may revoke or amend a PDP:~~

~~A. if the continued operation or presence of the product under development presents a risk to the public health or the environment, causes adverse effects on the proper function of the conforming system on the site, or leaks or discharges sewage on the surface of the ground;~~

~~B. if the product developer fails to comply with any requirement stipulated on the permit by the local unit of government; or~~

~~C. upon request of the site owner.~~

~~Subp. 9. **Fees.** The local unit of government may charge fees adequate to administer the PDP program.~~

~~7080.1660 PRODUCT REGISTRATION CONTESTED CASE HEARING.~~

~~A person is afforded an opportunity for a contested case hearing under *Minnesota Statutes*, chapter 14, for an approval, denial, or other action in relation to product registration or renewal, within 30 days of the action.~~

7080.1670 ~~PROFESSIONAL~~ REQUIREMENTS TO CONDUCT WORK.

Systems must be designed, installed, inspected, operated, and maintained by appropriately licensed businesses and certified ~~professionals~~ individuals according to part 7083.0700, as published in the *State Register*, volume 31, page 1089, and as subsequently adopted, and any other applicable state requirements.

7080.1700 DESIGN PHASE I; SITE EVALUATION.

Site evaluations consisting of preliminary and field evaluations according to parts 7080.1710 and 7080.1720 must be conducted for all proposed sites for ISTS. The site evaluation is considered the first phase of an ISTS design.

7080.1710 PRELIMINARY EVALUATION.

A preliminary evaluation shall consist of the determination, location, or existence of the following items:

A. design flow ~~amounts~~ for the dwelling, ~~or~~ dwellings, or other establishments;

B. proposed or existing:

(1) water supply wells within 100 feet of the proposed ISTS;

(2) noncommunity transient public water supply wells within 200 feet of the proposed ISTS if alternative local standards are in effect;

(3) a community or noncommunity nontransient water supply in a drinking water supply management area if alternative local standards are in effect;

(4) existing and proposed buildings or improvements on the lot; and

(5) buried water supply pipes within 50 feet of the proposed system;

C. easements on the lot;

D. the ordinary high water level of public waters, if adjacent to the lot;

E. floodplain designation and flooding elevation from published data or data that is acceptable to and approved by the local unit of government or the Department of Natural Resources, if applicable;

F. property lines;

G. all required setbacks from the system;

H. ~~determination of~~ the soil characteristics at the proposed soil treatment and dispersal areas as obtained from the soil survey report, if available, including the soil map, map units, landscape position, parent material, flooding potential, slope range, periodically saturated soil level, depth to bedrock, texture, color, depth to redoximorphic features, and structure and consistence of soil horizons;

I. a ~~legal description~~ township, range, and section number and other unique property identifiers as required by local government and lot dimensions;

J. names of property owners; and

K. the inner wellhead management zone or wellhead protection area of a public water supply~~; and~~, if applicable

~~L. a determination of whether a wetland delineation has been conducted or whether a regulatory body will require a wetland delineation~~

~~to be conducted on the lot~~.

7080.1720 FIELD EVALUATION.

Subpart 1. **Scope.** A field evaluation consists of the items described in subparts 2 to 7.

Subp. 2. **Lot lines.** Lot lines shall be established to the satisfaction of the property owner or the property owner's agent. Lot improvements, required setbacks, and easements must be identified.

Subp. 3. **Surface features.** The following surface features must be described:

A. the percent and direction of the slope at the proposed system location;

B. vegetation types;

C. any evidence of cut or filled areas or disturbed or compacted soil;

D. the flooding or runon potential; and

E. a geomorphic description.

Subp. 4. **Soil observations.** ~~Multiple~~ A minimum of three soil observations are required for the initial and replacement soil treatment area and at least one soil observation must be performed in the portion of the soil treatment area anticipated to have the most limiting conditions. The total number of soil observations required is based on the judgment of the certified individual or the local unit of government. Soil observations must comply with the following requirements:

A. the soil observations must be conducted within or on the borders of the proposed site;

B. the soil observations must be performed in an exposed pit or by hand augering or probing. The use of flight augers is not allowed;

C. the soil observation method must allow observation of the different soil horizons that constitute the soil profile and, if determining the loading rate by part 7080.2150, subpart 3, item E, Table IX, must ~~allow the observation of undisturbed soil structure~~ be observed by a soil pit;

D. underground utilities must be located before soil observations are undertaken;

E. required safety precautions must be taken before entering soil pits;

F. soil observations must be conducted prior to any required percolation tests to determine whether the soils are suitable to warrant percolation tests and, if suitable, at what depth percolation tests shall be conducted; and

G. the minimum depth of the soil observations must be to the ~~seasonally~~ periodically saturated layer, to the bedrock, or three feet below the proposed depth of the system, whichever is less.

Subp. 5. **Soil descriptions.** Each soil profile observed at the proposed soil treatment area must be evaluated under adequate light conditions with the soil in a moist unfrozen state for the characteristics in items A to H:

A. the depth of each soil horizon measured from the ground surface. Soil horizons are differentiated by changes in texture, color, redoximorphic features, bedrock, structure, consistence, and any other characteristic that ~~may affect~~ affects water movement or treatment of effluent;

B. a description of all soil colors for each horizon according to the Munsell Soil Color Charts, Revised Edition, Munsell Color Corporation (1992), or equivalent. The color charts are incorporated by reference, are available through the Minitex interlibrary loan system, and are not subject to frequent change;

C. a description of the soil texture, structure, and consistence using the United States Department of Agriculture (USDA) soil classification system as specified in the Field Book for Describing and Sampling Soils, which is incorporated by reference under part 7080.1100, subpart ~~40~~ 36;

D. depth to the bedrock;

E. depth to the ~~seasonally~~ periodically saturated soil for new construction or replacement as determined by redoximorphic features and other indicators, as determined in subitems (1) to (3):

(1) in subsoil and parent material, redoximorphic features include:

(a) distinct redoximorphic iron accumulations or distinct redoximorphic iron depletions;

(b) a gleyed or depleted soil matrix or redoximorphic mottles having a color chroma of two or less or a depleted matrix or redoximorphic mottles having a color hue of 5Y and a chroma of three or less; or

(c) faint redoximorphic concentrations or faint redoximorphic depletions in subsoil or parent material with a hue of 7.5YR or redder;

(2) in lower topsoil layers that are deeper than 12 inches from the surface and are immediately followed in depth by a ~~seasonally~~ periodically saturated horizon, redoximorphic features include:

(a) soil colors with a redoximorphic chroma of two or less; or

(b) redoximorphic accumulations or depletions;

(3) in the upper 12 inches of the topsoil layer immediately followed by a ~~seasonally~~ periodically saturated horizon, the depth of seasonal saturation ~~may be~~ is determined by indicators in units (a) to (e):

(a) soil colors with a chroma of zero;

(b) organic soil textures or mineral soil textures with an organic modifier;

(c) dominance of ~~hydrophilic~~ hydrophytic vegetation;

(d) the soil treatment area at or near the elevation of the ordinary high water level of a surface water or ~~the soil treatment area~~ in a ~~depressional landscape position~~ concave hill slope position; or

(e) the soil expressing indicators of seasonal saturation as determined in Field Indicators of Hydric Soils in the United States: A Guide for Identifying and Delineating Hydric Soils, USDA Natural Resource Conservation Service (~~2003~~ 2006). The field indicators are incorporated by reference, are available through the Minitex interlibrary loan system, and are subject to frequent change;

F. depth to the ~~seasonally~~ periodically saturated soil for all existing systems, determined by redoximorphic features in item E, except subitems (2), unit (a), and (3), units (a), (c), and (d), as measured outside the area of system influence in an area of similar soil;

G. depth of standing water in the soil observation excavation, measured from the soil surface, if observed; and

H. any other soil characteristic that ~~may need~~ needs to be described to ~~properly~~ design a system, such as hardpans or restrictive layers. These other characteristics must be classified according to the Field Book for Describing and Sampling Soils, which is incorporated by reference under part 7080.1100, subpart ~~40~~ 36.

Subp. 6. **~~Percolation tests~~ Determination of loading rate and absorption area size.** ~~Percolation tests, when desired or required to supplement the soil texture, structure, and consistence determination, must be made as~~ The effluent loading and absorption area size must be determined by either item A or B as required by the local unit of government:

A. the loading rate based on an examination of soil texture, structure, and consistence in soil pits using the United States Department of Agriculture (USDA) soil classification system as specified in the Field Book for Describing and Sampling Soils, which is incorporated by reference under part 7080.1100, subpart 36; or

B. the loading rate based on the percolation procedure described in ~~items A to H.~~ subitems (1) to (8) or other equivalent procedure as approved by the local unit of government:

~~A.~~ (1) each test hole must be six to eight inches in diameter, have vertical sides, and be located in the soil ~~treatment~~ absorption area. For mounds and at-grade systems, the bottom of each test hole must be in the upper 12 inches of the original soil. For trenches and seepage beds, the bottom of each test hole shall be at the depth of the absorption area~~.~~;

~~B.~~ (2) soil texture descriptions for percolation test holes must note the depths from the ground surface where texture changes occur~~.~~;

~~C.~~ (3) the bottom and sides of the hole must be carefully scratched to remove any smearing and to provide a natural soil surface into which water ~~may penetrate~~ penetrates. The scarification must not result in the hole having a diameter of greater than eight inches~~.~~;

~~D.~~ (4) all loose material must be removed from the bottom of the test hole and two inches of one-fourth to three-fourths inch gravel or clean sand must be added to protect the bottom from scouring~~.~~;

~~E.~~ (5) the hole must be carefully filled with clear water to a minimum depth of 12 inches from the bottom of the test hole and maintained for no less than four hours for saturation to occur. The soil must then be allowed to swell for at least 16, but no more than 30, hours. In sandy soils, the saturation and swelling procedure is not required and the test ~~may~~ is allowed to proceed if the initial filling of the hole with 12 inches of water seeps away in less than ten minutes~~.~~;

~~F.~~ (6) in sandy soils, water depth must be adjusted to eight inches over the soil at the bottom of the test hole. From a fixed reference point, the drop in water level must be measured in inches to the nearest 1/16 inch at approximately ten-minute intervals. A measurement ~~may~~ is also allowed to be made by determining the time it takes for the water level to drop one inch from an eight-inch reference point. If eight inches of water seeps away in less than ten minutes, a shorter interval between measurements must be used, but water depth must not exceed eight inches. The test must continue until three consecutive percolation rate measurements do not vary by more than ten percent. In other soils, the water depth must be adjusted to eight inches over the soil at the bottom of the test hole. From a fixed reference point, the drop in water level must be measured in inches to the nearest 1/16 inch at approximately 30-minute intervals and refilled between measurements to maintain an eight-inch starting head. If water seeps away in less than 30 minutes, a shorter time interval between measurements must be used, but water depth must not exceed eight inches. The test must continue until three consecutive percolation rate measurements do not vary by more than ten percent. The percolation rate ~~may~~ is also allowed to be determined by observing the time it takes the water level to drop one inch from an eight-inch reference point if a constant water depth of at least eight inches has been maintained for at least four hours prior to the measurement~~.~~;

~~G.~~ (7) the time interval must be divided in minutes by the drop in water level in inches to obtain the percolation rate in minutes per inch. The percolation rates that are within the ten percent provision determined for each test hole must be averaged to determine the final percolation rate for that hole. The slowest final percolation rate for all holes within the soil ~~treatment and~~ dispersal area must be used for design~~.~~; and

~~H.~~ (8) a percolation test must not be run where frost exists within 12 inches of the bottom of the percolation test hole.

Subp. 7. **Site protection.** The proposed soil treatment and dispersal area site shall be protected from disturbance, compaction, or other damage by staking, fencing, posting, or other effective method.

7080.1730 PHASE I; SITE EVALUATION REPORTING.

A written report on the site evaluation must be prepared and include the following:

A. preliminary and field evaluation results from parts 7080.1710 and 7080.1720;

B. dates of preliminary and field evaluations;

C. a map drawn to scale or dimension with a north arrow, and including:

(1) horizontal and vertical reference points of the proposed soil treatment and dispersal areas, soil observations, percolation tests, and pertinent distance from the proposed ISTS to all required setbacks, lot improvements, easements, ordinary high water mark of public waters, property lines, and direction and percent slope;

(2) the location of any unsuitable, disturbed, or compacted areas; and

(3) the access route for system maintenance;

D. the estimated depth of ~~seasonally~~ periodically saturated soil layer, bedrock, or flood elevation, if appropriate;

E. the proposed elevation of the bottom of the soil treatment and dispersal system;

~~F. the final soil sizing factor. If there is a discrepancy between the soil texture, structure, and consistence determination and any percolation rates measured in Table IX in part 7080.2150, subpart 3, item F, the larger soil sizing factor must be used or a justification for a smaller sizing must be submitted in the design report. Soil sizing determined using soil texture, structure, and consistence must be based on an undisturbed soil sample from which an evaluation of the soil structure and consistence can be made;~~

~~G~~ F. anticipated construction-related issues;

~~H~~ G. the name, address, telephone number, and certified statement of the individual conducting the site evaluation;

~~I~~ H. an assessment of how known or reasonably foreseeable land use changes ~~may~~ are expected to affect system performance, including, but not limited to, changes in drainage patterns, increased impervious surfaces, and proximity of new water supply wells;

~~J~~ I. a narrative explaining any difficulties encountered during the site evaluation, including but not limited to identifying and interpreting soil and landform features and how the difficulties were resolved; and

~~K~~ J. ~~an explanation~~ a notation of any differences between observed soil characteristics and those identified in the soil survey report.

7080.1750 DESIGN PHASE II.

Subpart 1. **System design.** Completion of tasks outlined in parts 7080.1850 to 7080.2430 is considered the second phase of ISTS design.

Subp. 2. **Compliance.** Designs for new construction or replacement ISTS must comply with applicable requirements and any other applicable codes, rules, and laws.

7080.1850 SEWAGE FLOW DETERMINATION FOR DWELLINGS.

Subpart 1. **System sizing.** If construction of additional dwellings or bedrooms, the installation of waterusing devices, or other factors likely to affect the operation of the ISTS can be reasonably anticipated, the system must be designed to accommodate these factors.

Subp. 2. **Design flow.** ~~Average daily flow must be used to size soil treatment and dispersal systems.~~ The estimated ~~average daily~~ design flow for any dwelling must provide for at least two bedrooms. For multiple or multifamily dwellings, the ~~average~~ design flow consists of the sum of the ~~average daily~~ design flows for each individual unit.

7080.1860 ~~AVERAGE DAILY~~ DESIGN FLOW (GALLONS PER DAY).

TABLE IV

Number of bedrooms	Classification of dwelling			
	I	II	III	IV
	Gallons per day			
2 or less	300	225	180	*
3	450	300	218	*
4	600	375	256	*
5	750	450	294	*
6	900	525	332	*

* Flows for Classification IV dwellings are 60 percent of the values as determined for Classification I, II, or III systems. For more than six bedrooms, the ~~average daily~~ design flow is determined by the following formulas:

Classification I: Classification I dwellings are those with more than 800 square feet per bedroom, when the dwelling's total finished floor area is divided by the number of bedrooms, or where more than two of the following water-use appliances are installed or anticipated: clothes washing machine, dishwasher, water conditioning unit, bathtub greater than 40 gallons, garbage disposal, or self-cleaning humidifier in furnace. The ~~average daily~~ design flow for Classification I dwellings is determined by multiplying 150 gallons by the number of

bedrooms.

Classification II: Classification II dwellings are those with 500 to 800 square feet per bedroom, when the dwelling's total finished floor area is divided by the number of bedrooms, and where no more than two of the water-use appliances listed in Classification I are installed or anticipated. The ~~average daily~~ design flow for Classification II dwellings is determined by adding one to the number of bedrooms and multiplying this result by 75 gallons.

Classification III: Classification III dwellings are those with less than 500 square feet per bedroom, when the dwelling's total finished floor area is divided by the number of bedrooms, and where no more than two of the water-use appliances listed in Classification I are installed or anticipated. The ~~average daily~~ design flow for Classification III dwellings is determined by adding one to the number of bedrooms, multiplying this result by 38 gallons, then adding 66 gallons.

Classification IV: Classification IV dwellings are dwellings designed under part 7080.2240.

7080.1880 SEWAGE FLOW DETERMINATION FOR OTHER ESTABLISHMENTS.

~~Average daily~~ Design sewage flow and waste concentration levels for other establishments with a flow of ~~2,500~~ 5,000 gallons per day or less shall be determined by part 7081.0130, as published in the *State Register*, volume 31, page 1067, and as subsequently adopted.

7080.1885 OTHER FLOW CONSIDERATIONS.

If the system is served by a sewage collection system, part 7081.0140, as published in the *State Register*, volume 31, page 1072, and as subsequently adopted, applies.

7080.1900 SEWAGE TANKS; GENERAL.

Sewage tanks serving ISTS must meet or exceed the applicable requirements of parts 7080.1910 to 7080.2030 unless otherwise approved by a licensed professional engineer and approved by the local unit of government.

7080.1910 TANK STRENGTH.

Subpart 1. **Requirements.** Tanks, fittings, risers, and apertures must:

A. be capable of supporting long-term vertical loads for the conditions in which the tank will be placed. These loads include, but are not limited to, saturated soil load, based on 130 pounds per cubic foot~~, and concentrated wheel load of 1,800 pounds~~;

B. be capable of withstanding a lateral load for the conditions the tank will be placed~~, with a minimum lateral load of 62.4 pounds per cubic foot~~;

~~C. be capable of withstanding any other loads or stresses placed upon the tank;~~

~~D.~~ C. with proper maintenance and venting, not be subject to ~~excessive~~ failure due to corrosion and degradation from sewage or sewage gases, including risers and maintenance hole covers; and

~~E.~~ D. be structurally capable of withstanding exposure and stresses from freezing conditions.

Subp. 2. **Poured-in-place concrete tanks.** Poured-in-place concrete tanks must be designed to meet each requirement of subpart 1 and be designed by a Minnesota licensed professional engineer.

7080.1920 SEPTIC TANK DESIGN.

Septic tanks must:

A. have a liquid depth of at least 30 inches. Any liquid depth that is greater than ~~78~~ 84 inches must not be used when calculating the septic tank liquid capacity;

B. have a minimum of six feet between the inlet and outlet of the tank, rather than between compartments, or have a minimum of six feet from the inlet of the first tank to the outlet of the last tank in series;

C. if site conditions warrant, the inlet and outlet ~~may~~ are allowed to be located on walls that are not opposite each other along the axis of maximum dimension; however, the requirements of item B must be met;

D. have an inlet invert at least two inches above the outlet invert; and

E. have a reserve or storage space between the liquid surface and the top of the inlet and outlet baffles of not less than eight inches or 100 gallons, whichever is greater.

7080.1930 SEPTIC TANK CAPACITY.

Subpart 1. **Dwellings.** The liquid capacity of septic tanks must be at least as large as the liquid capacities given in Table V.

TABLE V

Number of bedrooms	Septic tank liquid minimum capacities (gallons)
3 or less	1,000
4 or 5	1,500
6 or 7	2,000
8 or 9	2,500

Where more than nine bedrooms are present, the septic tank capacity must be calculated by the following formula: 2,500 + ([**# of bedrooms - 9**] x 250).

Subp. 2. **Garbage disposals.** If a garbage disposal unit or other appliance with garbage grinding capability is anticipated or installed in a dwelling, the septic tank capacity must be at least 50 percent greater than that required in subpart 1 and must include either multiple compartments or multiple tanks. In addition, an effluent screen with an alarm must be employed.

Subp. 3. **Sewage pumping.** If sewage is pumped from a sewage ejector or grinder pump from a dwelling to a septic tank, the septic tank capacity must be at least 50 percent greater than that required in subpart 1 and must include either multiple compartments or multiple tanks. In addition, an effluent screen with an alarm must be employed.

Subp. 4. **Sewage pumping and garbage disposals.** If conditions in both subparts 2 and 3 apply to a dwelling, the mitigative requirements of either subpart 2 or 3 apply; the requirements of both subparts 2 and 3 need not be additive.

Subp. 5. **Systems serving multiple dwellings.** For systems serving multiple dwellings with a common septic tank, the liquid capacity must be determined by adding the capacities for each dwelling as determined in this part.

Subp. 6. **Prior to other treatment devices.** Septic tank liquid capacity prior to other treatment devices must accord with manufacturer's requirements ~~or,~~ accepted engineering principles, or as identified in the product registration recommended standards and criteria.

Subp. 7. **Septic tank capacity for other establishments.** Septic tank liquid capacity for other establishments shall be determined by part 7081.0240, subpart 2.

7080.1940 MULTIPLE TANKS.

A. If more than one septic tank is used to obtain the required liquid capacity as determined in part 7080.1930, septic tanks ~~may~~ must be connected in series or employ multiple collection systems ~~or employ effective flow splitting to operate multiple tanks in parallel if approved by the local unit of government~~.

B. If tanks are connected in series, ~~no tank or compartment may be less than~~ each tank or compartment must contain at least 25 percent of the required total liquid capacity. For new construction, the first tank must be equal to or larger than any subsequent tank in the series.

7080.1950 COMPARTMENTALIZATION OF SINGLE TANKS.

If septic tanks are compartmentalized, items A to E apply.

A. When septic tanks are divided into compartments, the volume of the first compartment must be equal to or larger than any succeeding compartments. ~~No compartment may be less than~~ Each compartment must contain at least 25 percent of the total required liquid capacity~~. No compartment may~~ and have an inside horizontal dimension ~~less than~~ of at least 24 inches.

B. Flow between compartments can be achieved by an unbaffled transfer hole with a minimum size of 50 square inches located in the clarified liquid zone or a minimum 12-square-inch transfer hole located above the clarified liquid zone that is baffled according to part 7080.1960. The final compartment of a tank that employs a transfer hole in the clarified zone shall not be used as a ~~dosing chamber~~ pump tank.

C. Septic tanks must have at least a two-inch drop between the invert of the inlet to the invert of the outlet. No liquid level drop is required between the compartments.

D. Adequate venting must be provided between compartments by baffles or by an opening of at least 12 square inches near the top of the compartment wall.

E. All compartmental walls must be ~~strong enough to bear~~ designed to withstand the weight of the effluent against an empty compartment.

7080.1960 SEPTIC TANK BAFFLES.

All septic tanks must be baffled according to items A to G. Effluent screens ~~may~~ are allowed to be substituted for outlet baffles.

A. Baffles must be installed at each inlet and outlet of septic tanks. Outlet baffles are required on compartment walls if the transfer hole is at the liquid level.

B. Baffles must be ~~constructed of acid-resistant concrete, acid-resistant fiberglass, or plastic~~ resistant to corrosion or decay. Inlet baffles must not restrict the movement of solids.

C. Baffles must be integrally cast with the tank or affixed at the top and bottom with connectors that are not subject to corrosion or decay. Baffles for fiberglass-reinforced polyester tanks ~~may~~ are allowed to be either resin bonded or secured with suitable structural adhesive. Sanitary tees used as baffles must be affixed to the inlet or outlet pipes with a permanent waterproof adhesive.

D. The inlet baffle must extend at least six inches, but not more than 20 percent of the total liquid depth, below the liquid surface and at least six inches above the liquid surface.

E. The outlet baffle and any baffles between compartments must extend below the liquid surface a distance equal to 40 percent of the liquid depth, except that the penetration of the indicated baffles or sanitary tees for horizontal cylindrical tanks must be 35 percent of the total liquid depth. They must also extend above the liquid surface as required in item D. ~~In no case may~~ These baffles must extend ~~less than~~ at least six inches above the liquid surface.

F. There must be at least one inch between the underside of the top of the tank and the highest point of the inlet and outlet baffles.

G. The nearest point on the inlet baffles other than sanitary tees must be no less than six inches and no more than 12 inches from the end of the inlet pipe. The nearest point on the outlet baffle, other than sanitary tees, ~~may be no~~ must not be closer than six inches and no more than 12 inches from the beginning of the outlet pipe to the baffle. Sanitary tees used as inlet or outlet baffles must be at least four inches in diameter.

7080.1970 SEPTIC TANK ACCESS.

A. ~~There must be a maintenance hole with a minimum diameter of 20 inches (least dimension) over all baffles, screens, pumps, or other devices that may need inspection, maintenance, or repair.~~ Septic tanks shall have a minimum of two maintenance holes with a minimum diameter of 20 inches (least dimension). One maintenance hole must be over the outlet device (baffle or screen). Another maintenance hole must be near the center of the tank, to facilitate pumping without interference. For a compartmented tank, this hole must be centered over the first compartment. The tank must also have an inspection pipe with a minimum diameter of six inches over the inlet baffle. Enough maintenance holes must be provided so access can be gained within six feet of all walls for solids removal of each compartment.

B. All maintenance hole risers must extend through the tank cover ~~to or~~ above ~~finished~~ final grade.

C. Covers for maintenance holes must:

(1) be secured by ~~having sufficient weight or bolted, locked, or secured by~~ being locked, being bolted or screwed, having a weight of at least 95 pounds, or other methods approved by the local unit of government~~;~~. Covers shall also be leak resistant; and be designed so the cover cannot be slid or flipped, which could allow unauthorized access to the tank;

(2) have a written and graphic label warning of the hazardous conditions inside the tank;

(3) be capable of withstanding a load that the cover is anticipated to receive~~. The cover must maintain the load rating and not be subject to loss of integrity or strength over time or changes in climatic temperature~~; and

(4) be made of a material suitable for outdoor use and resistant to ultraviolet degradation.

7080.1980 TANK CONSTRUCTION.

A. All precast reinforced concrete sewage tanks ~~should be constructed according to~~ must be constructed to meet the requirements of this chapter. Information on best practices for tank construction is found in the National Precast Concrete Association's best practices manual, Precast Concrete On-site Wastewater Tanks (2005). ~~The~~ This manual is incorporated by reference, is available through the Minitex interlibrary loan system, and is not subject to frequent change. If a conflict exists between the manual and this chapter, this chapter applies.

B. All fiberglass-reinforced polyester and polyethylene tanks ~~should meet the construction standards in~~ must be constructed to meet the requirements of this chapter. Information on best practices for these tanks is found in the International Association of Plumbing and Mechanical Officials (IAPMO), Material and Property Standard for Prefabricated Septic Tanks, Standard PS 1-2006 (2006). ~~The~~ This standard is incorporated by reference, is available through the Minitex interlibrary loan system, and is not subject to frequent change. If conflicts exist between the standard and this chapter, this chapter applies.

7080.1990 TANK STORAGE, TRANSPORT, AND USE.

Subpart 1. **Precast reinforced concrete tanks.** Precast reinforced concrete tanks must:

A. have ~~inserts embedded in the concrete~~ a method to lift the tank ~~that are designed~~ for an ultimate load that is four times the working load;

B. undergo proper curing to achieve a compressive strength of 4,000 pounds per square inch before transport, placement, or use; and

C. have no pipe penetration points or openings in the exterior walls or tank bottom below the tank liquid level, unless designed for a specific operational purpose and approved by the local unit of government.

Subp. 2. **Other tanks.** Fiberglass-reinforced polyester or polyethylene tanks must be protected against deterioration during storage.

7080.2000 LOCATION AND INSTALLATION OF TANKS.

A. Sewage tanks must not be placed in areas ~~with obstructions~~ that prohibit the removal of solids and liquids from the tank according

to ~~this~~ part 7080.2450.

~~B. Sewage tanks must not be placed in areas where vertical or horizontal distances prohibit the ability of pump trucks to remove the solids and liquids according to this part.~~

~~C~~ B. Sewage tanks must be set back as specified in Table VII in part 7080.2150, subpart 2, item F.

~~D~~ C. The top of sewage tanks ~~should~~ must not be buried deeper than four feet ~~and must not be buried deeper than seven feet~~ from final grade for new dwellings, unless a local ordinance allows for burial at a greater depth, not to exceed the tank manufacturer's maximum designed depth for the tank. ~~Tanks shall not be buried deeper than the tanks' maximum designed depth.~~ The minimum depth of soil cover over the insulation on the top of the tank is six inches.

~~E~~ D. Sewage tanks must not be placed in floodways, drainageways, or swales. Upslope drainage must be diverted away from the location of all tanks. A tank's final cover must be crowned or sloped to shed surface water.

~~F~~ E. Sewage tanks must not be placed in areas subject to vehicular traffic unless engineered for the anticipated load.

~~G~~ F. Sewage tanks must be placed on firm and evenly compacted soil and with the soil level in all directions. The bottom shall be excavated in a manner so the vertical load is borne by the tank walls and not the tank bottom. If the bottom of the tank excavation contains rocks, bedding material must be used according to manufacturer's instructions. The soil beneath the tank must be capable of bearing the weight of the tank and its contents.

~~H. Backfilling around sewage tanks must be made in lifts no greater than 12 inches in loose thickness and placed nearly equally around the tank. Backfill material must be free of large stones, frozen soil material, or other debris. Backfill material must be brought to near natural density in a manner that avoids undue strain on the tank. For fiberglass-reinforced polyester or polyethylene tanks, the height of the backfill material must not exceed the height of water in the tank.~~

~~I~~ G. Sewage tanks and risers must be installed according to manufacturer's requirements and in a structurally sound and watertight fashion.

~~J~~ H. If the top of a sewage tank is to be less than two feet from final grade, the lid of the tank must be insulated to an Rvalue of ten. Maintenance hole covers must be insulated to an Rvalue of ten. ~~Maintenance hole risers may be insulated to an Rvalue of ten.~~ All insulating materials must be resistant to water absorption.

~~K~~ I. Sewage tanks placed below the level of the ~~seasonally~~ periodically saturated soil must ~~be anchored or have sufficient weight~~ employ a method to protect against flotation under ~~highwater table~~ periodic saturated soil conditions when the tank is empty.

~~L~~ J. Connections between the concrete tank and the building sewer or supply pipe must meet the requirements of American Society for Testing and Materials, Standard Specification for Resilient Connectors Between Reinforced Concrete Manhole Structures, Pipes, and Laterals, ASTM C923 (2002), or equivalent. The standard is incorporated by reference, is available through the Minitex interlibrary loan system, and is not subject to frequent change.

~~M~~ K. Joints of concrete tanks ~~and,~~ concrete tank lids , and concrete risers must be sealed using a bonding compound that meets American Society for Testing and Materials, Standard Specification for Joints for Concrete Pipe, Manholes, and Precast Box Sections Using Preformed Flexible Joint Sealants, ASTM C990 (2003). The standard is incorporated by reference, is available through the Minitex interlibrary loan system, and is not subject to frequent change.

7080.2010 TANK ~~TESTING~~ ASSESSMENT.

Subpart 1. **General.**

A. All sewage tanks must be watertight, including at all tank and riser joints, riser connections, and pipe connections.

B. ~~Testing~~ An assessment of all models of sewage tanks to be used must be conducted to determine:

(1) the structural integrity of the tank design; and

(2) the adequacy of the manufacturing process of watertightness.

C. Sewage tanks, including riser joints, riser connections, and pipe connections must be designed, manufactured, and installed to be watertight ~~for 25 years~~ under normal use.

Subp. 2. **Structural integrity of design test.** The structural integrity of each model of tank ~~produced~~ manufactured and all poured-in-place tanks must be verified by calculation, proof testing, or a licensed professional engineer to determine the horizontal and vertical loads that the tank can withstand when empty. Tanks must be reverified for structural integrity if the design, materials, or construction methods are modified. A licensed professional engineer shall certify in writing if different manufactured models are similar enough so that the structural integrity information for one model is valid for other models. Verifications must be submitted to the commissioner. The commissioner shall maintain and make available the verifications upon request. ~~All pouredinplace tanks must be verified.~~

Subp. 3. **Watertightness test.**

A. ~~Of all sewage tanks manufactured, every 25th tank produced must be tested for watertightness.~~ At least one tank per year, per model must be tested for watertightness. All poured-in-place tanks shall be tested for watertightness. Records of testing must be maintained by the manufacturer for three years and must be available to the commissioner and local unit of government if requested. Tanks must be tested and meet or exceed the applicable requirements of ~~subitems~~ subitem (1) ~~to~~, (2), or (3):

(1) when empty, a tank must maintain a vacuum of at least two inches of mercury for five minutes, without loss of pressure;

(2) concrete tanks must hold water for one hour, without loss, after the tank has been filled with water to the top of the tank, let stand for 24 hours, and then refilled to the same level; ~~and~~ or

(3) fiberglass-reinforced polyester or polyethylene sewage tanks must hold water without loss for one hour after being filled.

B. Sewage tanks that do not pass the tests listed in item A~~, subitems (1) to (3),~~ must not be used until repaired and retested. The repair and retest procedure must be repeated until the tank passes the test or the tank must not be used.

7080.2020 TANK IDENTIFICATION.

A. Sewage tanks must be marked near the outlet with:

(1) the manufacturer's name;

(2) model number;

(3) liquid capacity;

(4) date of manufacture; and

(5) maximum depth of burial.

B. The tank manufacturer or manufacturer's agent shall provide the information in item A to the installer in writing.

~~B~~ C. The tank inlet or outlet must be clearly marked.

~~C~~ D. The installer shall submit the information in item A with the as-built drawing.

7080.2030 EFFECTIVE DATE.

Sewage tanks must meet the requirements of parts 7080.1910 to 7080.2020 within three years of the effective date of this chapter. Tanks produced and installed within this three-year period must meet the requirements of *Minnesota Rules* 2005, part 7080.0130.

7080.2050 DISTRIBUTION OF EFFLUENT.

Subpart 1. **General.** Distribution of effluent for ISTS must meet or exceed the requirements of this part.

Subp. 2. **Supply pipes.**

A. The supply pipe extending from the septic tank to the undisturbed soil beyond the tank excavation must meet the strength requirements of American Society for Testing and Materials (ASTM), Schedule 40 Pipe, contained in Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120, ASTM D1785 (2006). The schedule is incorporated by reference, is available through the Minitex interlibrary loan system, and is not subject to frequent change.

B. Supply pipes must:

(1) be made from materials resistant to breakdown from sewage and soil;

(2) be watertight, including all joints;

(3) be durable ~~for a 25year~~ throughout the design life;

(4) not deflect, buckle, crush, or longitudinally bend;

(5) be resistant to pressures, fatigue, and strain for the application;

(6) be installed according to American Society of Testing and Materials, Standard Practice for Underground Installation of Thermoplastic Pipe for Sewers and Other Gravity-Flow Applications, ASTM D2321 (2005). The standard is incorporated by reference, is available through the Minitex interlibrary loan system, and is not subject to frequent change;

(7) be designed, installed, and protected ~~so that effluent will not freeze~~ to minimize the danger of freezing in the pipe;

(8) not be closer than six inches from final grade. Pipes susceptible to freezing shall be insulated; and

(9) be set back from water supply wells and water service pipes according to ~~chapter~~ chapters 4715 and 4725.

C. The minimum slope for gravity supply pipes is one percent (1/8 inch per linear foot). There is no maximum slope. Pipe restraints must be used for slopes greater than 20 percent or where fluid velocities in the pipe exceed 15 feet per second. For pressure systems, ~~the slope shall be sufficient to allow quick drainback to the dosing chamber~~ a minimum slope of one percent for drainback or other frost protection measures must be employed.

D. Access to each supply pipe must be provided for cleanout. The ~~cleanout~~ access point must be accessible from final grade.

Subp. 3. **Gravity distribution.**

A. Serial distribution must be used to distribute effluent to individual trenches in a soil treatment and dispersal system. If the necessary elevation differences between trenches for serial distribution cannot be achieved by natural topography or by varying the excavation depths, parallel distribution ~~may~~ must be used. Serial distribution must not create a pressure head on trenches at lower elevations.

B. If drop boxes are used for serial distribution, subitems (1) to (6) apply.

(1) The drop box must be watertight and constructed of durable materials not subject to corrosion or decay.

(2) The invert of the inlet supply pipe must be at least one inch higher than the invert of the outlet supply pipe to the next drop box.

(3) The invert of the outlet supply pipe to the next drop box ~~may~~ must be no greater than two inches higher than the crown of the distribution pipe serving the trench in which the box is located.

(4) When sewage tank effluent is delivered to the drop box by a pump, the pump discharge must be directed against a wall or side of the box on which there is no outlet or directed against a deflection wall, baffle, or other energy dissipater. ~~The pump must discharge at a rate at least ten percent greater than the water supply flow rate but no faster than the rate at which effluent will flow out of the distribution device.~~ The discharge rate into the drop box must not result in surfacing of sewage from the drop box. The supply pipe must drain after the pump shuts off.

(5) The drop box must be covered by a minimum of six inches of soil. If the top of the box is deeper than six inches, access must be provided above, at, or within six inches of finished grade.

(6) The drop box must be placed on firm and settled soil.

C. If valve boxes are used, all requirements of item B apply to valve boxes.

D. Distribution boxes must meet the standards in subitems (1) to (6).

(1) The box must be watertight and constructed of durable materials not subject to corrosion or decay.

(2) The distribution box must be covered by a minimum of six inches of soil. If the top of the box is deeper than six inches, access must be provided above, at, or within six inches of the finished grade.

(3) The inverts of all outlets must be set and maintained at the same elevation.

(4) The inlet invert must be either at least one inch above the outlet invert or sloped such that an equivalent elevation above the outlet invert is obtained within the last eight feet of the inlet pipe.

(5) Each trench line must be connected separately to the distribution box and must not be subdivided. Distribution boxes must not be connected to one another if each box has distribution pipes.

(6) When sewage tank effluent is delivered by pump, a baffle wall must be installed in the distribution box or the pump discharge must be directed against a wall, baffle, side of the box on which there is no outlet, or directed against a deflection wall, baffle, or other energy dissipater. The baffle must be secured to the box and extend at least one inch above the crown of the inlet pipe. The discharge rate into the drop box must not result in surfacing of sewage from the drop box. Pressure must not build up in the box during pump discharge.

E. Nonpressurized distribution pipes must meet the requirements of subitems (1) to (4) and subpart 2, item B, subitems (1) and (3) to (5).

(1) Distribution pipes used for gravity distribution must be at least four inches in diameter.

(2) Distribution pipes used for gravity distribution must have at least one row of holes of no less than onehalf inch in diameter spaced no more than 40 inches apart.

(3) Distribution pipes for gravity distribution must be laid level or on a uniform slope oriented away from the distribution device of no more than four inches per 100 feet.

(4) Distribution pipes for gravity distribution in seepage beds must be uniformly spaced no more than five feet apart and not more than 30 inches from the side walls of the seepage bed.

Subp. 4. **Pressure distribution.**

A. Pressure distribution must pressurize the entire distribution system and must be used for:

(1) mound systems;

(2) at-grade systems;

(3) all seepage beds placed in soils with a ~~sizing classification~~ texture group of 1 ~~or 2~~ through 5 in Table IX in part 7080.2150, subpart 3, item ~~F~~ E;

(4) all seepage beds with a width greater than 12 feet;

(5) all trench systems if the trenches are at the same elevation and placed in soils with a ~~sizing classification~~ texture group of 1 ~~or 2~~ through 5 in Table IX in part 7080.2150, subpart 3, item ~~F~~ E;

(6) systems receiving ~~an organic load of less than 25 percent of values in part 7081.0270, subpart 6~~ treatment level A or B effluent, as determined in part 7083.4030, Table III, as published in the *State Register*, volume ~~31~~ 32, page ~~1077~~ 1430, and as subsequently adopted; and

(7) all systems where the distribution network is installed above the original grade.

B. Pressurized distribution pipes must conform to the requirements of subpart 2, item B, subitems (1) and (3) to (5).

C. Pressure distribution pipes and associated fittings must be properly joined together. The pipe and connections must be able to withstand a pressure of at least 40 pounds per square inch.

D. The distribution network must be designed so there is less than a ten percent variance in flow for all perforations.

E. Perforations must be no smaller than one-eighth inch diameter and no larger than one-quarter inch diameter. The number of perforations, perforation spacing, and pipe size for pressure distribution must be in accordance with Table VI. The friction loss in any individual perforated lateral must not exceed 20 percent of the average pressure head on the perforations.

TABLE VI
MAXIMUM NUMBER OF PERFORATIONS PER LATERAL
1/4 inch holes
Pipe diameter in inches

Perforation spacing in feet	1	1.25	1.5	2	3
2	10	13	18	30	60
2.5	8	12	16	28	54
3	8	12	16	25	52

3/16 inch holes
Pipe diameter in inches

Perforation spacing in feet	1	1.25	1.5	2	3
2	12	18	26	46	87
2.5	12	17	24	40	80
3	12	16	22	37	75

1/8 inch holes
Pipe diameter in inches

Perforation spacing in feet	1	1.25	1.5	2	3
2	21	33	44	74	149
2.5	20	30	41	69	135
3	20	29	38	64	128

F. Perforation holes must be drilled straight into the pipe and not at an angle. Pressurized distribution laterals must be installed level. Perforation holes must be free of burrs. Holes ~~may~~ must be spaced no more than three feet apart. A method to introduce air into the pipe after dosing must be provided. The pipes must completely drain after the pump turns off.

G. Pressure distribution laterals must be spaced no further than 36 inches apart in seepage beds and mound absorption beds, and no further than 24 inches from the outside edge of the bed.

H. Pressure distribution laterals must be connected to a header or manifold pipe that is of a diameter such that the friction loss in the header or manifold will be no greater than five percent of the average head at the perforations. The header or manifold pipe must be connected to the supply pipe from the pump.

I. Perforated laterals must not be installed closer than 12 inches from the edges of the absorption bed and ~~perforations must not be installed~~ perforated laterals must terminate no closer than 12 inches from the ends of the absorption bed.

J. Pressure distribution pipe cleanouts must be provided to check the system for proper operation and cleaning of plugged perforations. Cleanouts must be accessible from final grade.

7080.2100 DOSING OF EFFLUENT.

Subpart 1. **General.** When pumping or dosing is necessary, it must comply with this part.

Subp. 2. **~~Dosing chambers~~ Pump tanks.**

A. ~~Dosing chambers~~ Pump tanks shall meet or exceed the requirements of parts 7080.1910, 7080.1970, and 7080.1980 to 7080.2020. All dosing chambers must be vented.

B. The pump, pump controls, and pump discharge line must be installed to allow access for servicing or replacement without entering the ~~dosing chamber~~ pump tank.

C. The ~~dosing chamber~~ pump tank must either include an alternating two-pump system or have a minimum total capacity of 500 gallons for ~~average daily~~ design flow ~~valves~~ values of 600 gallons per day or less or 100 percent of the ~~average daily~~ design flow for ~~average~~

~~daily~~ design flow ~~valves~~ values of greater than 600 gallons per day.

D. An ISTS with a pump must employ an alarm device to warn of failure.

E. The inlet of pumps must be elevated at least four inches from the bottom of the ~~dosing chamber~~ pump tank or protected in some other manner to prevent the pump from drawing excessive settled solids.

F. Electrical installations must comply with applicable laws and ordinances including the most current codes, rules, and regulations of public authorities having jurisdiction and with part 1315.0200, which incorporates the National Electrical Code.

Subp. 3. **Pumps for gravity distribution.** If a pump is used to lift effluent into a gravity distribution system, items A to C apply.

A. The pump must discharge at least ten gallons per minute but no more than 45 gallons per minute.

B. The pump must be constructed and fitted with sound, durable, and corrosion-resistant materials.

C. The pump must have sufficient dynamic head for both the elevation difference and friction loss.

Subp. 4. **Pumps for pressure distribution.** Pumps for pressure distribution must meet the requirements in items A to D.

A. Pumps must be constructed and fitted with sound, durable, and corrosion-resistant materials.

B. The pump discharge capacity must be based on the perforation discharges for a minimum average head of 1.0 foot for 1/4 inch and 3/16 inch perforations and 2.0 feet for 1/8 inch perforations for dwellings. The minimum average head must be 2.0 feet for all other establishments. Perforation discharge is determined by the following formula:

$Q = 19.65\ cd^2h^{1/2}$

where: Q = discharge in gallons per minute

c = 0.60 = coefficient of discharge

d = perforation diameter in inches

h = head in feet.

C. The pump discharge head must be at least five feet greater than the head required to overcome pipe friction losses and the elevation difference between the pump and the distribution device.

D. The quantity of effluent delivered for each pump cycle must be no greater than 25 percent of the ~~average daily~~ design flow and at least five times the volume of the supply and distribution pipes.

7080.2150 TREATMENT AND DISPERSAL.

Subpart 1. **General.** Treatment and dispersal of all sewage for new construction or replacement ISTS must be in compliance with this part and parts 7080.2200 to 7080.2400 as adopted into local ordinances.

Subp. 2. **General technical requirements for all systems.** All new construction or replacement ISTS must be designed to meet or exceed the provisions in items A to ~~G~~ F.

A. All treatment and dispersal methods must be designed to conform to all applicable federal, state, and local regulations.

B. Treatment and dispersal processes must prevent sewage or sewage effluent contact with humans, insects, or vermin.

C. Treatment and dispersal of sewage or sewage effluent must be in a safe manner that adequately protects from physical injury or harm.

D. An unsaturated zone in the soil must be maintained between the bottom of the soil treatment and dispersal system and the ~~seasonally~~ periodically saturated soil or bedrock during loading of effluent.

~~E. Local units of government may also require additional standards for local resource protection, such as limits for nitrogen and phosphorus compounds.~~

~~F~~ E. Soil treatment and dispersal systems must not be designed in floodways. Soil treatment and dispersal systems installed in flood fringes must meet the requirements in part 7080.2270. ~~Soil treatment and dispersal systems should not be placed in areas subject to excessive runon.~~ All soil treatment systems located in areas subject to excessive run-on must have a diversion constructed upslope from the system.

~~G~~ F. ISTS components must be set back ~~as specified~~ in accordance with Table VII. ~~This chapter does not require a setback to a wetland, but a local setback may exist.~~

TABLE VII

MINIMUM SETBACK DISTANCES (FEET)

Feature	Sewage tank, holding tank, or sealed privy	Absorption area or unsealed privy	Building sewer or supply pipes
Water supply wells	*	*	*
Buried water lines	*	*	*
Buildings**	10	20	
Property lines***	10	10	
Ordinary high water			

level of public waters **** ****

* Setbacks from buried water lines and water supply wells are governed by chapters 4715 and 4725, respectively.

** For structures other than buildings, these setbacks ~~may~~ are allowed to be reduced if necessary due to site conditions, but no component of an ISTS ~~may~~ is allowed to be located under or within the structure or other impermeable surface.

*** Infringement on property line setbacks must be made through accepted local procedures.

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

Subp. 3. **Other technical requirements for systems.** ~~Requirements in~~ Items A to ~~K will be~~ J are required for specific designs as determined in parts 7080.2200 to 7080.2400.

A. Employ components registered under ~~part 7080.1600~~ parts 7083.4070 and 7083.4080, as published in the *State Register*, volume 32, page 1433, and as subsequently adopted, that are installed, used, and operated according to the conditions placed on registration.

B. Employ structural components and joint sealants that meet or exceed ~~a 25year~~ the system's expected design life.

~~C. Systems must not be designed, installed, or operated to exceed the loadings in part 7081.0270, subpart 6, as published in the *State Register*, volume 31, page 1077, and as subsequently adopted.~~

~~D~~ C. For acceptable treatment of septic tank effluent by soil, the soil treatment and dispersal systems must meet the requirements of subitems (1) and (2).

(1) A minimum three-foot vertical soil treatment and dispersal zone shall be designed below the distribution media that meets the criteria in units (a) to (c):

(a) the zone must be above the ~~seasonally~~ periodically saturated soil and bedrock. The zone must be continuous and not be interrupted by seasonal zones of saturation;

(b) any soil layers with a ~~sizing classification~~ texture group of 1 or 4 in Table IX in item ~~F~~ E must not be credited as part of the necessary threefoot zone; and

(c) the entire treatment zone depth must be within seven feet from final grade.

(2) The distribution system or media must not place a hydraulic head greater than 30 inches ~~over~~ above the ~~treatment zone~~ bottom of the bottom absorption area.

~~E~~ D. The system's absorption area must be original soil.

~~F~~ E. The system's absorption area must be sized according to Table IX.

TABLE IX

~~SOIL SIZING FACTORS~~ LOADING RATES FOR DETERMINING BOTTOM ABSORPTION AREA FOR TRENCHES AND SEEPAGE BEDS FOR EFFLUENT TREATMENT LEVEL C AND ABSORPTION RATIOS FOR DETERMINING MOUND ABSORPTION AREAS USING DETAILED SOIL DESCRIPTIONS ~~OR PERCOLATION TEST AND ABSORPTION RATIOS FOR DETERMINING MOUND ABSORPTION AREAS USING DETAILED SOIL DESCRIPTIONS~~

~~Sizing classification~~	~~Soil texture~~	~~Soil structure*~~	~~Percolation rate (minutes per inch)~~	~~Soil sizing factor (square feet of trench or seepage bed bottom per gallon of average design flow per day)~~	~~Absorption ratio for mounds~~
~~1~~	~~Coarse sand~~	~~Single grain~~	~~faster than 0.1~~	~~.83~~	~~1.0~~

~~2~~	~~Medium sand, loamy sand*~~	~~Single grain~~	~~0.1 to 5~~	~~.83~~	~~1.0~~
~~3~~	~~Fine sand, loamy fine sand~~	~~Single grain~~	~~0.1 to 5~~	~~1.67~~	~~1.0~~
~~4~~	~~Sandy loam~~	~~Weak to strong~~	~~6 to 15~~	~~1.27~~	~~1.5~~
~~5~~	~~Sandy loam~~	~~Massive or platy~~	~~16 to 30~~	~~1.67~~	~~2.0~~
~~6~~	~~Loam to strong~~	~~Moderate~~	~~16 to 30~~	~~1.67~~	~~2.0~~
~~7~~	~~Loam platy~~	~~Weak or~~	~~31 to 45~~	~~2.0~~	~~2.4~~
~~8~~	~~Loam~~	~~Massive~~	~~46 to 60~~	~~2.2~~	~~3.0~~
~~9~~	~~Silt loam~~	~~Moderate to strong~~	~~31 to 45~~	~~2.0~~	~~2.4~~
~~10~~	~~Silt loam~~	~~Weak or platy~~	~~46 to 60~~	~~2.2~~	~~3.0~~
~~11~~	~~Silt loam~~	~~Massive~~	~~61 to 85~~	~~3.0~~	~~3.6~~
~~12~~	~~Sandy clay~~	~~Moderate to strong~~	~~46 to 60~~	~~2.2~~	~~2.6~~

	loam, clay loam, silty clay loam				
13	Sandy clay loam, clay loam, silty clay loam	Weak or platy	61 to 85	3.0	3.8
14	Sandy clay loam, clay loam, silty clay loam	Massive slower	121 or	--	--
15	Sandy clay, clay, silty clay	Strong	86 to 120	4.2	5.0
16	Sandy clay, clay, silty clay	Weak to moderate, massive, or platy	121 or slower	--	--

* The soil structure must have a moist consistency of loose, very friable, friable, or firm as determined by the *Field Book for Describing and Sampling Soils*, which is incorporated by reference under part 7080.1100, subpart 40.

Texture	Texture group	Structure	Grade	Consistence	Soil loading rate (gpd/ft^2)	Mound absorption ratio
Coarse sand*	1	single grain		loose	0.00	1
		single grain		weakly cemented-friable	0.00	2
		single grain		cemented-firm	0.00	0
Medium sand*	2	single grain		loose	1.20	1
		single grain		weakly cemented-friable	0.60	2
		single grain		cemented-firm	0.00	0
Fine sand	3	single grain		loose	0.60	2
		single grain		weakly cemented-friable	0.24	5
		single grain		cemented-firm	0.00	0
Coarse and medium loamy sand*	4	single grain		loose	1.20	1
		single grain		weakly cemented-friable	0.60	2
		single grain		cemented-firm	0.00	0

Fine and very fine loamy sand	5	single grain		loose	0.60	2
		single grain		weakly cemented-friable	0.24	5.0
		single grain		cemented-firm	0.00	0
Coarse and medium sandy loam	6	pris, blk, gr	weak	v. friable, friable	0.45	2.6
		pris, blk, gr	weak	firm	0.24	5.0
		pris, blk, gr	mod or strong	v. friable, friable	0.78	1.3
		pris, blk, gr	mod or strong	firm	0.45	2.6
		platy	weak	v. friable, friable	0.45	2.6
		platy	weak	firm	0.24	5.0
		platy	mod or strong	v. friable, friable	0.45	2.6
		platy	mod or strong	firm	0.00	0.0
		massive		v. friable, friable	0.24	5.0
		massive		firm	0.00	0.0
Fine and v. fine sandy loam	7	pris, blk, gr	weak	v. friable, friable	0.24	5.0
		pris, blk, gr	weak	firm	0.24	5.0

		pris, blk, gr	mod or strong	v. friable, friable	0.60	2.0
		pris, blk, gr	mod or strong	firm	0.24	5.0
		platy	weak	v. friable, friable	0.24	5.0
		platy	weak	firm	0.00	0.0
		platy	mod or strong	v. friable, friable	0.00	0.0
		platy	mod or strong	firm	0.00	0.0
		massive		v. friable, friable	0.24	5.0
		massive		firm	0.00	0.0
Loam	8	pris, blk, gr	weak	v. friable, friable	0.45	2.6
		pris, blk, gr	weak	firm	0.24	5.0
		pris, blk, gr	mod or strong	v. friable, friable	0.60	2.0
		pris, blk, gr	mod or strong	firm	0.24	5.0
		platy	weak	v. friable, friable	0.24	5.0
		platy	weak	firm	0.00	0.0
		platy	mod or strong	v. friable, friable	0.00	0.0
		platy	mod or strong	firm	0.00	0.0
		massive		v. friable, friable	0.24	5.0
		massive		firm	0.00	0.0
Silt loam	9	pris, blk, gr	weak	v. friable, friable	0.45	2.6

		pris, blk, gr	weak	firm	0.24	5.0
		pris, blk, gr	mod or strong	v. friable, friable	0.50	2.4
		pris, blk, gr	mod or strong	firm	0.24	5.0
		platy	weak	v. friable, friable	0.24	5.0
		platy	weak	firm	0.00	0.0
		platy	mod or strong	v. friable, friable	0.00	0.0
		platy	mod or strong	firm	0.00	0.0
		massive		v. friable, friable	0.24	5.0
		massive		firm	0.00	0.0
Clay loam, silty clay loam, sandy clay loam	10	pris, blk, gr	weak	v. friable or friable	0.24	5.0
		pris, blk, gr	weak	firm	0.00	0.00
		pris, blk, gr	mod or strong	v. friable or friable	0.45	2.6
		pris, blk, gr	mod or strong	firm	0.24	5.0
		platy	weak	v. friable or friable	0.00	0.00
		platy	weak	firm	0.00	0.00
		platy	mod or strong	v. friable or friable	0.00	0.00
		platy	mod or strong	firm	0.00	0.00

		massive		v. friable or friable	0.00	0.00
		massive		firm	0.00	0.00
Clay, silty clay, sandy clay	11	pris, blk, gr	weak	v. friable, friable	0.00	0.00
		pris, blk, gr	weak	firm	0.00	0.00
		pris, blk, gr	mod or strong	v. friable, or friable	0.24	5.0
		pris, blk, gr	mod or strong	firm	0.00	0.00
		platy	weak	v. friable, friable	0.00	0.00
		platy	weak	firm	0.00	0.00
		platy	mod or strong	v. friable, friable	0.00	0.00
		platy	mod or strong	firm	0.00	0.00
		massive		v. friable, friable	0.00	0.00
		massive		firm	0.00	0.00

All very firm consistence has a loading rate of 0.0.

TABLE IXa
LOADING RATES FOR DETERMINING BOTTOM ABSORPTION AREA FOR TRENCHES AND SEEPAGE BEDS FOR EFFLUENT TREATMENT LEVEL C AND ABSORPTION RATIOS FOR DETERMINING MOUND ABSORPTION AREAS USING PERCOLATION TESTS

Percolation rate (minutes per inch)	Gallons per day per square foot of trench bottom	Mound absorption ratio
Faster than 0.1*	0.0	1
0.1 to 5*	1.20	1
0.1 to 5 (soil texture groups 3 & 5)	0.6	2
6 to 15	0.78	1.3
16 to 30	0.6	2
31 to 45	0.5	2.4
46 to 60	0.45	2.6
61 to 120	0.24	5.0
Slower than 120	0.0	--

*See part 7080.2260 for requirements for these soils.

~~G~~ F. If drainfield rock medium is employed, a durable, nonwoven geotextile fabric must be used to cover the distribution rock medium. The fabric must be of sufficient strength to undergo installation without rupture. The fabric must permit passage of water without passage of overlying soil material into the rock medium.

~~H~~ G. All excavation into the absorption area, or surface preparation of the upper 12 inches of absorption area, must be in a manner to expose the original soil structure in an unsmeared and uncompacted condition. Excavation is only allowed when the soil moisture content is at or less than the plastic limit and is not frozen or freezing.

~~I~~ H. Excavation equipment or other vehicles must not be driven on the excavated or prepared absorption area. Foot traffic on these areas must be minimized and not cause ~~undue~~ compaction. The exposed areas must be immediately covered with media or the designed coverage materials. If the areas are exposed to direct rainfall, they must be allowed to dry and must be re-prepared according to item ~~H~~ G.

~~J~~ I. A minimum of six inches of topsoil borrow shall be placed over the system.

~~K~~ J. A close-growing, vigorous vegetative cover must be established over the soil treatment and dispersal system and other vegetatively disturbed areas. The sodding, seeding, or other vegetation establishment shall begin immediately after the placement of the topsoil borrow. The soil treatment and dispersal system must be protected from erosion and excessive frost until a vegetative cover is established. The vegetative cover established must not interfere with the hydraulic performance of the system and shall provide adequate frost and erosion protection. Trees, shrubs, deep-rooted plants, or ~~hydrophilic~~ hydrophytic plants ~~should~~ must not be planted on the system.

Subp. 4. **Systems with a design flow greater than 2,500 gallons per day.** At a minimum, systems designed under this chapter with a design flow of greater than 2,500 gallons per day, which impact water quality of an aquifer, as defined in part 4725.0100, subpart 21, must employ best management practices for nitrogen reduction developed by the commissioner to mitigate water quality impacts to groundwater.

7080.2200 TYPE I SYSTEMS.

Systems designed according to parts 7080.2200 to 7080.2240 are considered Type I systems.

7080.2210 TRENCHES AND SEEPAGE BEDS.

Subpart 1. **Characteristics.** To qualify as a trench or seepage bed system, the system must meet or exceed the requirements of items A to E:

A. employ flow values in ~~part~~ parts 7080.1850 to 7080.1885;

B. meet or exceed applicable technical requirements of parts 7080.1900 to 7080.2030, 7080.2050, and 7080.2100;

C. provide flow measurement if a pump is to be employed;

D. meet or exceed the requirements of part 7080.2150, subparts 2 and 3; and

E. meet the requirements of subparts 2 to 4.

Subp. 2. **Seepage ~~bed construction~~ beds.** Seepage bed ~~construction~~ placement must be limited to areas having natural slopes of less than six percent. Seepage beds and trenches must not be placed in soils with a ~~sizing classification~~ texture group of ~~13 to 16~~ 10 and 11 on Table IX in part 7080.2150, subpart 3, item ~~F~~ E. Seepage beds must not be located in floodplains.

Subp. 3. **Sizing of trenches and seepage beds.**

A. ~~The system's proposed absorption area must meet sizing classifications 2 to 10 or 12 on Table IX in part 7080.2150, subpart 3, item F.~~ The trench bottom absorption area is calculated by ~~multiplying~~ dividing the ~~average daily~~ design flow by the appropriate soil ~~sizing factor~~ loading rate in Table IX or IXa in part 7080.2150, subpart 3, item ~~F~~ E. If gravity distribution is used in seepage beds, the seepage bed absorption area is calculated by ~~multiplying~~ dividing the ~~average daily~~ design flow by the soil ~~sizing factor~~ loading rate in Table IX or IXa in part 7080.2150, subpart 3, item ~~F~~ E, multiplied by 1.5. If pressure distribution is used in seepage beds, the seepage bed absorption area is determined by ~~multiplying~~ dividing the design flow by the soil ~~sizing factor~~ loading rate in Table IX or IXa in part 7080.2150, subpart 3, item ~~F, by the average daily flow~~ E.

B. The minimum sidewall absorption ~~shall be~~ is six inches. The bottom absorption area ~~may~~ is allowed to be reduced, for trenches only, by ~~20 percent for loading 12 inches of sidewall absorption below the distribution pipe, 34 percent for 18 inches, and 40 percent for 24 inches. Reductions may be interpolated for other depths of sidewall absorption.~~ the following:

Sidewall absorption - inches	Bottom area reduction
12 to 17	20%
18 to 23	34%
24	40%

Subp. 4. **Design and construction of trenches and seepage beds.**

A. Trenches must be no more than 36 inches wide. Any excavation wider than 36 inches shall be considered a seepage bed. ~~No~~ A seepage bed ~~may~~ must not be wider than 12 feet if gravity distribution is used and 25 feet if pressure distribution is used. Natural, undisturbed soil must exist between multiple trenches and seepage beds. Multiple seepage beds must be spaced at one-half the bed width. Multiple units ~~may need to~~ must be designed based on ~~linear~~ contour loading rates as described in part 7080.2220, subpart 3, item B.

B. A vertical inspection pipe at least ~~1-1/2~~ four inches in diameter must be installed and secured in the distribution medium of every trench or seepage bed. The inspection pipe must be located at an end opposite from where the sewage tank effluent enters the medium. The inspection pipe must have three-eighths inch or larger perforations spaced vertically no more than six inches apart. At least two perforations must be located in the distribution medium. ~~No~~ Perforations ~~may~~ must not be located above the geotextile cover or wrap. The inspection pipe must extend to the bottom of the distribution medium, be secured, and be capped flush with or above finished grade.

C. The top and bottom of the distribution medium must be level ~~in all directions~~ along the contour. Sidewalls must be as vertical as practical and not intentionally sloped.

D. The minimum depth of soil cover, including topsoil borrow, over the distribution medium is 12 inches.

E. Trenches or seepage beds must be backfilled and crowned above finished grade to allow for settling. The top six inches of the backfill must have the same texture as the adjacent soil.

7080.2220 MOUNDS.

Subpart 1. **Mound system requirements.** To qualify as a mound system, the system must meet or exceed the following requirements:

A. employ flow values in ~~part~~ parts 7080.1850 to 7080.1885;

B. meet or exceed applicable technical requirements of parts 7080.1900 to 7080.2030, 7080.2050, and 7080.2100;

C. meet or exceed the requirements of part 7080.2150, subparts 2 and 3;

D. employ flow measurement; and

E. meet the requirements of subparts 2 and 3.

Subp. 2. **Location of mounds.**

A. The upper 12 inches of the original soil mound absorption area must ~~be in soil sizing categories 1 to 13 or 15 in Table IX in part 7080.2150, subpart 3, item F.~~ have a mound absorption ratio of greater than zero under part 7080.2150, subpart 3, item E, Table IX or IXa. The upper 12 inches of the absorption area must also be above the ~~seasonally~~ periodically saturated soil or bedrock.

B. Setbacks must be according to Table VII in part 7080.2150, subpart 2, item ~~G~~ F. Setbacks must be measured from the original soil absorption area.

C. On slopes of one percent or greater and where the original soil mound absorption ~~area sizing classification is 11, 13, or 15~~ is 5.0 or greater in Table IX or IXa in part 7080.2150, subpart 3, item ~~F~~ E, mounds must not be located where the ground surface contour lines that lie directly below the long axis of the ~~rock~~ distribution media bed represent a swale or draw, unless the contour lines have a radius of curvature greater than 100 feet. Mounds must never be located in swales or draws where the radius of curvature of the contour lines is less than 50 feet.

Subp. 3. **Mound design and construction.**

A. The mound distribution media bed ~~absorption~~ area consists of bottom area only and must be calculated by ~~multiplying~~ dividing the ~~average daily~~ design flow by ~~0.83 square feet per gallon~~ 1.2 gallons per square foot per day.

B. The mound distribution media bed ~~absorption~~ area must be as long and narrow as practical. Mound ~~absorption~~ distribution media beds must be no wider than ten feet. Mound distribution bed ~~absorption~~ widths must be determined by the contour loading rate, which is the relationship between the vertical and horizontal water movement based on the following soil conditions:

(1) the permeability difference between the original soil mound absorption area and slower permeability horizons below the original soil mound absorption area;

(2) the depth between the original soil mound absorption area and the change in permeability described in subitem (1); and

(3) the land slope.

C. Clean sand must be used to elevate the mound distribution media bed ~~absorption area~~ and must consist of sound, durable material that conforms to the following requirements:

Sieve Size	Percent Passing
No. 4	95-100
No. 8	80-100
No. 10	0-100
No. 40	0-100
No. 60	0-40
No. 200	0-5

Clean sand must also contain less than three percent deleterious substances and be free of organic impurities.

D. The original soil mound absorption area is determined by multiplying the original soil mound absorption length by the original soil mound absorption width. The original soil mound absorption width is calculated by multiplying the mound distribution media bed ~~absorption~~ width by the mound absorption ratio. The mound absorption ratio of the upper 12 inches of soil in the proposed original soil mound absorption area shall be determined according to Table IX or IXa in part 7080.2150, subpart 3, item ~~F~~ E.

E. The required original soil absorption width for mounds constructed on slopes from zero to one percent must be centered under the mound distribution media bed ~~absorption~~ width.The required original mound soil absorption width ~~for mounds~~ constructed on slopes greater than one percent must be measured downslope from the upslope edge of the mound distribution media bed ~~absorption~~ width and measured in the direction of the original land slope and perpendicular to the original contours.

F. The side slopes on the mound must not be steeper than three horizontal units to one vertical unit and shall extend beyond the required original soil absorption area, if necessary.

G. Distribution of effluent over the mound ~~absorption~~ distribution media bed must be by level perforated pipe under pressure according to parts 7080.2050 and 7080.2100.

H. The supply pipe from the pump to the original soil absorption area must be installed before surface preparation of the original mound soil absorption area. The trench excavated for the supply pipe must be carefully backfilled and compacted to prevent seepage of effluent.

I. Vegetation in excess of two inches in length and dead organic debris including leaf mats must be removed from the original soil mound absorption area. Trees must be cut nearly flush with the ground and stumps must not be removed.

J. The original soil mound absorption area must be roughened by backhoe teeth, moldboard, or chisel plow. The soil must be roughened to a depth of eight inches. Discing is allowed if the upper eight inches of soil has a texture of sandy loam or coarser. If plowed, furrows must be thrown uphill and there must not be a dead furrow in the original soil mound absorption area. A rubber-tired tractor ~~may be used~~

is allowed for plowing or discing. Rototilling or pulverizing the soil is not allowed. The original soil must not be excavated or moved more than one foot from its original location during soil surface preparation.

K. Prior to placement of six inches of clean sand, ~~no vehicle may~~ vehicles must not be driven on the original soil mound absorption area before or after the surface preparation is completed. The clean sand must immediately be placed on the prepared surface.

L. The clean sand must be placed by using a construction technique that minimizes compaction. If the clean sand is driven on for construction, a crawler or track-type tractor must be used. At least six inches of sand must be kept beneath equipment to minimize compaction of the prepared surface.

M. A minimum of 12 inches of clean sand must be placed in contact with the bottom area of the mound distribution media bed ~~absorption area~~ and must be uniformly tapered to cover the entire original soil absorption area. Other sandy materials ~~may~~ are allowed to be used outside of this area to complete construction of the mound.

N. The top of the clean sand layer upon which the mound distribution media bed ~~absorption area~~ is placed must be level in all directions.

O. A vertical inspection pipe at least ~~1-1/2~~ four inches in diameter must be installed and secured at the distribution medium and sand interface. The inspection pipe must have three-eighths inch or larger perforations spaced vertically no more than six inches apart. At least two perforations must be located in the distribution medium. ~~No perforation may~~ Perforations must not be located above the permeable synthetic fabric, if used. The inspection pipe must extend to the bottom of the distribution medium, be secured, and be capped, flush with or above finished grade.

P. On slopes of one percent or greater, the upslope edge of the mound absorption bed must be placed on the contour.

Q. ~~The mound absorption bed must completely encase the top and sides of the distribution pipes to a depth of at least one inch above the pipe. The mound absorption bed must extend six inches below the pipe.~~ The sidewalls of the mound absorption bed must be as vertical as practical and not intentionally sloped.

R. The top of the mound ~~absorption~~ distribution media bed must be level in all directions.

S. A minimum of six inches of sandy to loamy soil material must be placed on the top of the mound absorption bed and sloped upwards toward the center of the mound a minimum of ten horizontal units to one vertical unit.

T. Construction vehicles must not be allowed on the distribution media until backfill is placed as described in item S.

U. A minimum of six inches of topsoil borrow must be placed over the entire mound.

7080.2230 AT-GRADE SYSTEMS.

Subpart 1. **At-grade system.** To qualify as an at-grade system, the system must meet or exceed the following requirements:

A. employ flow values in ~~part~~ parts 7080.1850 to 7080.1885;

B. meet or exceed applicable technical requirements of parts 7080.1900 to 7080.2030, 7080.2050, and 7080.2100;

C. meet or exceed the requirements of part 7080.2150, subparts 2 and 3;

D. employ flow measurement; and

E. meet the requirements of subparts 2 and 3.

Subp. 2. **Location of at-grade systems.**

A. The upper 12 inches of the absorption area must be original soil with a ~~sizing classification of 2 to 10 or 12~~ loading rate of 0.45 gallons per day per square foot or greater as shown in Table IX or IXa in part 7080.2150, subpart 3, item ~~F~~ E.

B. At-grade systems must not be installed in areas with slopes greater than 25 percent.

C. Setbacks must be according to part 7080.2150, subpart 2, item ~~G~~ F. Setbacks must be measured from the absorption area.

Subp. 3. **Design and construction of at-grade systems.**

A. The at-grade bed absorption width must be determined according to part 7080.2220, subpart 3, item B, and must not exceed a width of 15 feet. The at-grade bed absorption width for slopes of one percent or greater does not include any width of the media necessary to support the upslope side of the pipe.

B. The at-grade absorption length must be calculated by ~~multiplying~~ dividing the design flow by the soil ~~sizing factor~~ loading rate found in Table IX or IXa in part 7080.2150, subpart 3, item ~~F~~ E, for the upper 12 inches of soil ~~by the average daily flow~~ and dividing by the absorption bed width.

C. At-grade systems must employ pressurized distribution by meeting or exceeding the applicable requirements of parts 7080.2050 and 7080.2100. At-grade systems located on slopes of one percent or greater require only one distribution pipe located on the upslope edge of the distribution media, with the absorption bed width being measured from the distribution pipe to the downslope edge of the media. Multiple distribution pipes ~~may~~ are allowed to be used to provide even distribution, if necessary, based on site conditions.

D. The upslope edge of an at-grade absorption bed must be installed along the natural contour.

~~E. The absorption bed must completely encase the top and sides of the distribution pipe to a depth of at least two inches above the pipe. There must be at least six inches from the bottom of the pipe to the absorption area.~~

~~F~~ E. At-grade materials must be placed by using construction techniques that minimize compaction.

~~G~~ F. Six inches of loamy or sandy cover material must be installed over the distribution media. Cover must extend at least five feet from

the ends of the rock bed and be sloped to divert surface water. Side slopes must not be steeper than four horizontal units to one vertical unit. Six inches of topsoil borrow must be placed on the cover material.

~~H~~ G. ~~Three~~ One vertical inspection ~~pipes~~ pipe of at least ~~1.5~~ four inches in diameter must be installed ~~and evenly spaced~~ along the downslope portion of the absorption bed. The inspection pipes must have three-eighths inch or larger perforations spaced vertically no more than six inches apart. ~~No~~ Perforations ~~may~~ must not exist above the distribution medium. The inspection pipes must extend to the absorption bed/soil interface and must be secured and capped flush with or above finished grade.

7080.2240 ~~GREYWATER~~ GRAYWATER SYSTEMS.

Subpart 1. **General.** To qualify as a ~~greywater~~ graywater system, the system must meet or exceed the following requirements:

A. employ 60 percent of the flow values in ~~part~~ parts 7080.1850 to 7080.1885;

B. meet or exceed applicable technical requirements of parts 7080.1900 to 7080.2030, 7080.2050, and 7080.2100, except as modified in this part;

C. provide flow measurement if a pump is to be employed;

D. meet or exceed the requirements of parts 7080.2210 to 7080.2230;

E. meet or exceed ~~applicable~~ requirements of part 7080.2150, subparts 2 and 3; and

F. meet the requirements of subparts 2 and 3.

Subp. 2. **Toilet waste.** ~~No~~ Toilet waste ~~may enter a greywater~~ must not be discharged to a graywater system.

Subp. 3. **Sewage tank.** ~~Greywater septic tanks must meet the requirements of part 7080.1900, except that~~ The liquid capacity of a ~~greywater~~ graywater septic tank serving a dwelling must be based on the number of bedrooms existing and anticipated in the dwelling served and shall be at least as large as the capacities given in Table X.

TABLE X

Number of bedrooms	Tank liquid capacity (gallons)
3 or less	750
4 or 5	1,000
6 or 7	1,250
8 or 9	1,500

For ten or more bedrooms, the ~~greywater~~ graywater septic tank shall be sized as: (1,500 + ((# or bedrooms 9) x 150)).

7080.2250 TYPE II SYSTEMS.

Systems designed according to parts 7080.2260 to 7080.2290 are considered Type II systems.

7080.2260 RAPIDLY PERMEABLE SOILS.

Subpart 1. **General.** A system must be designed under this part if the soil in the proposed absorption area, or within three vertical feet of the absorption area, has a ~~system sizing factor of 1 to 3~~ soil texture groups of 1 or 4 in Table IX in part 7080.2150, subpart 3, item ~~F~~ E. The system must meet or exceed the following requirements:

A. employ the design flow values in ~~part~~ parts 7080.1850 to 7080.1880;

B. meet or exceed applicable technical requirements of parts 7080.1900 to 7080.2030, 7080.2050, and 7080.2100, except as modified in this part;

C. provide flow measurement if a pump is to be employed;

D. meet or exceed the requirements of parts 7080.2210 to 7080.2230;

E. meet or exceed ~~applicable~~ requirements of part 7080.2150, subparts 2 and 3, except as modified in this part; and

F. meet the requirements of subparts 2 and 3.

Subp. 2. **Contact with soil.** The distribution media must not be in contact with soils with a ~~sizing classification~~ texture group of 1 as listed in Table IX in part 7080.2150, subpart 3, item ~~F~~ E.

Subp. 3. **Treatment techniques.** If the distribution media is in contact with soil with ~~a sizing classification of 2 or 3~~ soil texture groups 2 through 5 in Table IX in part 7080.2150, subpart 3, item ~~F, one of the following treatment techniques must be used:~~ E,

~~A. employ~~ pressure distribution must be used as specified in part 7080.2050, subpart 4~~; or~~

~~B. divide the total soil treatment and dispersal system into at least four parts with no part larger than 25 percent of the area required by part 7080.2210, subpart 3, item A, with the parts constructed for serial distribution~~.

7080.2270 FLOODPLAIN AREAS.

Subpart 1. **General.** ISTS must be designed under this part if the system is proposed to be located in a floodplain. A system located in a floodplain must meet or exceed the following requirements:

A. employ flow values in ~~part~~ parts 7080.1850 to 7080.1885;

B. meet or exceed applicable technical requirements of parts 7080.1900 to 7080.2030, 7080.2050, and 7080.2100, except as modified in this part;

C. provide flow measurement if a pump is to be employed;

D. meet or exceed the requirements of parts 7080.2210 to 7080.2230;

E. meet or exceed ~~applicable~~ requirements of part 7080.2150, subparts 2 and 3, except as modified in this subpart; and

F. meet the requirements of subparts 2 to 11.

Subp. 2. **State and local requirements.** The allowed use of systems in floodplains must be according to state and local floodplain requirements.

Subp. 3. **Location of system.** An ISTS must not be located in a floodway and, whenever possible, placement within any part of the floodplain should be avoided. If no alternative exists, a system ~~may~~ is allowed to be placed within the flood fringe if the requirements in subparts 4 to ~~9~~ 11 are met.

Subp. 4. **Openings.** There must be no inspection pipe or other installed opening from the distribution media to the soil surface.

Subp. 5. **Highest ground.** An ISTS must be located on the highest feasible area of the lot and must have location preference over all other improvements except the water supply well. If the ten-year flood data are available, the bottom of the distribution media must be at least as high as the elevation of the ten-year flood.

Subp. 6. **Pump.** If a pump is used to distribute effluent to the soil treatment and dispersal system, provisions shall be made to prevent the pump from operating when inundated with floodwaters.

Subp. 7. **Raising elevation.** When it is necessary to raise the elevation of the soil treatment system to meet the vertical separation distance requirements, a mound system as specified in part 7080.2220 ~~may~~ is allowed to be used with the following additional requirements:

A. the elevation of the bottom of the mound bed absorption area must be at least one-half foot above the ten-year flood elevation if ten-year flood data are available;

B. inspection pipes must not be installed unless the top of the mound is above the 100-year flood elevation; and

C. the placement of clean sand and other fill must be done according to any community-adopted floodplain management ordinance.

Subp. 8. **Inundation of top.** When the top of a sewage tank is inundated, the dwelling must cease discharging sewage into it.

Subp. 9. **Backflow.** Backflow prevention of liquid into the building when the system is inundated must be provided. If a holding tank is used, the system must be designed to permit rapid diversion of sewage into the holding tank when the system is inundated.

Subp. 10. **Holding tank.** If a holding tank is used to serve a dwelling, the holding tank's liquid capacity must equal 100 gallons times the number of bedrooms times the number of days between the ten-year stage on the rising limb of the 100-year flood hydrograph and the ten-year stage on the falling limb of the hydrograph, or 1,000 gallons, whichever is greater. The holding tank must be accessible for removal of tank contents under flooded conditions.

Subp. 11. **Water level above top.** Whenever the water level has risen above the top of a sewage tank, the tank must be pumped to remove all solids and liquids after the flood has receded and before use of the system is resumed.

7080.2280 PRIVIES.

A. To qualify as a privy, the system must:

(1) meet or exceed the requirements of part 7080.2150, subpart 2;

(2) have soil beneath the bottom of the pit that meets or exceeds the requirements of part 7080.2150, subpart 3, item ~~D~~ C, ~~or~~ employ a watertight tank meeting applicable requirements of parts 7080.1900 to 7080.2030, or employ a toilet treatment device; and

(3) meet the requirements of items B to E.

B. Pits or vaults must have sufficient capacity for the dwelling they serve, but must have at least 25 cubic feet of capacity.

C. The sides of the pit must be curbed to prevent cavein.

D. The privy must be easily maintained and insect proof. The door and seat must be self-closing. All exterior openings, including vent openings, shall be screened.

E. Privies must be adequately vented.

7080.2290 HOLDING TANKS.

A. To qualify as a holding tank, the system must:

(1) meet or exceed applicable requirements of parts 7080.1900 to 7080.2030;

(2) meet or exceed the applicable requirements of part 7080.2150, subpart 2;

(3) meet or exceed the requirements of part 7080.2150, subpart 3, item B; and

(4) meet the requirements of items B to F.

B. All tanks used as holding tanks must be tested for watertightness as specified in part 7080.2010, subpart 3.

C. A cleanout pipe of at least six inches in diameter must extend to the ground surface and be provided with seals to prevent odor emissions and exclude insects and vermin. A maintenance hole of at least 20 inches in least dimension must extend through the cover to a point within 12 inches, but no closer than six inches, below finished grade. If the maintenance hole is covered with less than six inches of soil, the cover must be secured according to part 7080.1970, item C.

D. For a dwelling, the minimum size is 1,000 gallons or 400 gallons times the number of bedrooms, whichever is greater. For other establishments, the minimum capacity shall be at least five times the ~~average daily~~ design flow. Tank sizing for floodplain areas must be calculated according to part 7080.2270, subpart 10.

E. Holding tanks must be located in an area readily accessible to the pump truck under all weather conditions and where accidental spillage during pumping will not create a nuisance and must meet the setback requirements as specified in Table VII in part 7080.2150, subpart 2, item ~~G~~ F.

F. Holding tanks must have an alarm device to minimize the chance of accidental sewage overflows unless regularly scheduled pumping is used. An alarm device shall identify when the holding tank is at 75 percent capacity.

7080.2300 TYPE III SYSTEMS.

A system designed according to this part is considered a Type III system. The system must:

A. employ design flow values in ~~part~~ parts 7080.1850 to 7080.1885;

B. meet or exceed applicable technical requirements of part 7080.2050, subpart 4, item A;

C. provide flow measurement;

D. meet or exceed the requirements of part 7080.2150, subpart 2; and

E. meet or exceed the requirements of part 7080.2150, subpart 3, items A, B, ~~D, and K~~ C, G, I, and J.

If the site cannot accommodate a soil treatment and dispersal system sized in accordance with Table IX or IXa in part 7080.2150, subpart 3, item ~~F~~ E, a smaller soil treatment and dispersal system ~~may~~ is allowed to be constructed ~~that~~ if it employs flow restriction devices that do not allow loadings in excess of those in Table IX or IXa of part 7080.2150, subpart 3, item ~~F~~ E.

7080.2350 TYPE IV SYSTEMS.

Subpart 1. **General.** A system designed according to this part is considered a Type IV system. The system must:

A. employ design flow values in ~~part~~ parts 7080.1850 to 7080.1885;

B. meet or exceed applicable technical requirements of parts 7080.1900 to 7080.2030, 7080.2050, and 7080.2100;

C. meet or exceed the requirements of part 7080.2150, subpart 2;

D. meet or exceed the requirements of part 7080.2150, subpart 3, ~~item~~ items A and B; and

E. meet or exceed the requirements of ~~Tables~~ Table XI in subpart 2 and Table XII or XIIa in ~~subparts 2 and~~ subpart 3.

Subp. 2. **Table XI.**

TABLE XI
TREATMENT COMPONENT PERFORMANCE LEVELS AND
METHOD OF DISTRIBUTION BY ~~SOIL~~ TEXTURE GROUP[1]

Vertical separation (inches)	Soil group found in Table XII		
	~~1,2~~ 15	~~3~~6 69	~~7,8~~ 1011
12 ~~<18~~ to 17	Treatment Level A Pressure Distribution Timed Dosing	Treatment Level ~~B~~ A Pressure Distribution Timed Dosing	Treatment Level ~~B~~ A Pressure Distribution Timed Dosing
≥ 18 ~~<~~ ~~24~~ to 23	Treatment Level B Pressure Distribution Timed Dosing	Treatment Level B Pressure Distribution Timed Dosing	Treatment Level B Pressure Distribution

≥ 24 ≤ to 36	Treatment Level B Pressure Distribution Timed Dosing	Treatment Level ~~C~~ B Pressure Distribution	Treatment Level ~~C~~ B Pressure Distribution

[1] The treatment component performance levels correspond with those established for treatment components under the product testing requirements in Table III in part ~~7080.1620~~ 7083.4030, as published in the *State Register*, volume 32, page 1430, and as subsequently adopted.

Subp. 3. **~~Table~~ Tables XII and XIIa.** The system's absorption area must be sized according to Table XII or Table XIIa.

~~TABLE XII~~
~~SOIL GROUPING DESCRIPTIONS AND MAXIMUM HYDRAULIC LOADING RATE TO THE ABSORPTION AREA~~

~~Soil group~~	~~Soil texture~~	~~Soil structure (type)~~	~~Soil structure (grade)~~	~~Minimum soil sizing factor (ft^2/gal./day)~~
~~1~~	~~Coarse sands, medium sands, loamy coarse sands, loamy medium sands~~	~~Single grain~~	~~Structureless~~	~~0.63~~
~~2~~	~~Fine sands, very fine sands, loamy fine sands, loamy very fine sands~~	~~Single grain~~	~~Structureless~~	~~1.0~~
~~3~~	~~Coarse sandy loam, sandy loam~~	~~Massive~~	~~Structureless~~	~~1.67~~
		~~Platy~~	~~Weak, moderate, strong~~	~~2.0~~
		~~Prismatic, blocky, granular~~	~~Weak~~	~~1.42~~
			~~Moderate, strong~~	~~1.0~~
~~4~~	~~Fine sandy loam, very fine sandy loam~~	~~Massive~~	~~Structureless~~	~~2.0~~
		~~Platy~~	~~Weak, moderate, strong~~	~~---~~
		~~Prismatic, blocky, granular~~	~~Weak~~	~~1.67~~
			~~Moderate, strong~~	~~1.25~~
~~5~~	~~Loams~~	~~Massive~~	~~Structureless~~	~~2.0~~
		~~Platy~~	~~Weak, moderate, strong~~	~~---~~

		Prismatic, blocky, granular	Weak	1.67
			Moderate, strong	1.25
6	Silt loams	Massive	Structureless	5.0
		Platy	Weak, moderate, strong	---
		Prismatic, blocky, granular	Weak	1.67
			Moderate, strong	1.25
7	Sandy clay loams, clay loams, silty clay loams	Massive	Structureless	---
		Platy	Weak, moderate, strong	---
		Prismatic, blocky, granular	Weak	3.33
			Moderate, strong	1.67
8	Sandy clay, clay, silty clays	Massive	Structureless	---
		Platy	Weak, moderate, strong	---
		Prismatic, blocky, granular	Weak	---
			Moderate, strong	3.33

TABLE XII
LOADING RATES FOR DETERMINING BOTTOM ABSORPTION AREA FOR TRENCHES AND SEEPAGE BEDS FOR EFFLUENT MEETING TREATMENT LEVELS A AND B AND ABSORPTION RATIOS FOR DETERMINING MOUND ABSORPTION AREAS USING DETAILED SOIL DESCRIPTIONS

Texture	Texture group	Structure	Grade	Consistence	Soil loading rate (gpd/ft^2)	Mound absorption ratio
Coarse sand*	1	single grain		loose	0.00	1
		single grain		weakly cemented-friable	0.00	2
		single grain		cemented-firm	0.00	0
Medium sand*	2	single grain		loose	1.6	1
		single grain		weakly cemented-friable	0.78	2
		single grain		cemented-firm	0.00	0
Fine sand	3	single grain		loose	1.0	2
		single grain		weakly cemented-friable	0.45	2
		single grain		cemented-firm	0.00	0
Coarse and medium loamy sand*	4	single grain		loose	1.6	1
		single grain		weakly cemented-friable	0.78	2
		single grain		cemented-firm	0.00	0

Fine and very fine loamy sand	5	single grain		loose	1.0	2
		single grain		weakly cemented-friable	0.45	5.0
		single grain		cemented-firm	0.00	0
Coarse and medium sandy loam	6	pris, blk, gr	weak	v. friable, friable	0.6	2.6
		pris, blk, gr	weak	firm	0.45	5.0
		pris, blk, gr	mod or strong	v. friable, friable	1.0	1.3
		pris, blk, gr	mod or strong	firm	0.6	2.6
		platy	weak	v. friable, friable	0.6	2.6
		platy	weak	firm	0.45	5.0
		platy	mod or strong	v. friable, friable	0.6	2.6
		platy	mod or strong	firm	0.00	0.0
		massive		v. friable, friable	0.45	5.0
		massive		firm	0.00	0.0
Fine and v. fine sandy loam	7	pris, blk, gr	weak	v. friable, friable	0.45	5.0
		pris, blk, gr	weak	firm	0.45	5.0

		pris, blk, gr	mod or strong	v. friable, friable	0.78	2.0
		pris, blk, gr	mod or strong	firm	0.45	5.0
		platy	weak	v. friable, friable	0.45	5.0
		platy	weak	firm	0.00	0.0
		platy	mod or strong	v. friable, friable	0.24	0.0
		platy	mod or strong	firm	0.00	0.0
		massive		v. friable, friable	0.45	5.0
		massive		firm	0.00	0.0
Loam	8	pris, blk, gr	weak	v. friable, friable	0.6	2.6
		pris, blk, gr	weak	firm	0.45	5.0
		pris, blk, gr	mod or strong	v. friable, friable	0.78	2.0
		pris, blk, gr	mod or strong	firm	0.45	5.0
		platy	weak	v. friable, friable	0.45	5.0
		platy	weak	firm	0.00	0.0
		platy	mod or strong	v. friable, friable	0.24	0.0
		platy	mod or strong	firm	0.00	0.0
		massive		v. friable, friable	0.45	5.0
		massive		firm	0.00	0.0
Silt loam	9	pris, blk, gr	weak	v. friable, friable	0.6	2.6

		pris, blk, gr	weak	firm	0.45	5.0
		pris, blk, gr	mod or strong	v. friable, friable	0.78	2.4
		pris, blk, gr	mod or strong	firm	0.45	5.0
		platy	weak	v. friable, friable	0.45	5.0
		platy	weak	firm	0.00	0.0
		platy	mod or strong	v. friable, friable	0.00	0.0
		platy	mod or strong	firm	0.00	0.0
		massive		v. friable, friable	0.3	5.0
		massive		firm	0.00	0.0
Clay loam, silty clay loam, sandy clay loam	10	pris, blk, gr	weak	v. friable or friable	0.3	5.0
		pris, blk, gr	weak	firm	0.00	0.00
		pris, blk, gr	mod or strong	v. friable or friable	0.6	2.6
		pris, blk, gr	mod or strong	firm	0.3	5.0
		platy	weak	v. friable or friable	0.00	0.00
		platy	weak	firm	0.00	0.00
		platy	mod or strong	v. friable or friable	0.00	0.00
		platy	mod or strong	firm	0.00	0.00

		massive		v. friable or friable	0.00	0.00
		massive		firm	0.00	0.00
Clay, silty clay, sandy clay	11	pris, blk, gr	weak	v. friable, friable	0.00	0.00
		pris, blk, gr	weak	firm	0.00	0.00
		pris, blk, gr	mod or strong	v. friable, or friable	0.3	5.0
		pris, blk, gr	mod or strong	firm	0.00	0.00
		platy	weak	v. friable, friable	0.00	0.00
		platy	weak	firm	0.00	0.00
		platy	mod or strong	v. friable, friable	0.00	0.00
		platy	mod or strong	firm	0.00	0.00
		massive		v. friable, friable	0.00	0.00
		massive		firm	0.00	0.00

All very firm consistence has a loading rate of 0.0.

TABLE XIIa
LOADING RATES FOR DETERMINING BOTTOM ABSORPTION AREA
FOR TRENCHES AND SEEPAGE BEDS FOR EFFLUENT TREATMENT
LEVELS A AND B AND ABSORPTION RATIOS FOR DETERMINING
MOUND ABSORPTION AREAS USING PERCOLATION TESTS

Percolation rate (minutes per inch)	Gallons per day per square foot of trench bottom	Mound absorption ratio
Faster than 0.1*	0.0	1
0.1 to 5*	1.6	1
0.1 to 5 (soil texture groups 3 & 5)	1.0	2
6 to 15	1.0	1.3
16 to 30	0.78	2
31 to 45	0.78	2.4
46 to 60	0.6	2.6
61 to 120	0.3	5.0
Slower than 120	--	--

*See part 7080.2260 for requirements for these soils.

7080.2400 TYPE V SYSTEMS.

A system designed according to this part is considered a Type V system. The system must:

A. employ design flow values in ~~part~~ parts 7080.1850 to 7080.1885;

B. meet or exceed the requirements of part 7080.2150, subpart 2; and

C. be designed with a vertical separation that ensures adequate sewage dispersal and treatment ~~and dispersal~~. Design factors to consider include, but are not limited to, effluent quality, loading rates, groundwater mounding if loading rates are in excess of those in part 7080.2350, subpart 2, Table XII or XIIa, loading methods, and soil conditions.

ISTS must not contaminate underground waters or zones of ~~seasonal~~ periodic saturation with viable fecal organisms.

7080.2430 REPORTING.

Phase II design reports must include detailed drawings, design flows, system component sizing and calculations, hydraulic and organic loading rates, setbacks, location and elevations for construction ~~considerations~~, and management plans as described in part 7082.0600, subpart 1, as published in the *State Register*, volume 31, page 1085, and as subsequently adopted, and a certified statement.

7080.2450 MAINTENANCE.

Subpart 1. **General.** All ISTS must be operated under the regulatory requirements of part 7082.0600, as published in the State Register, volume 31, page 1085, and as subsequently adopted. ISTS and all components must be maintained in compliance with this chapter and manufacturer requirements. ~~Subparts~~ Subpart 2, ~~item~~ items A~~,~~ and ~~6~~ B, are intended to apply to ISTS and systems that do not qualify as an ISTS, but receives sewage such as cesspools, drywells, leaching pits, or other pits.

Subp. 2. **Frequency of assessment.** The owner of an ISTS or the owner's agent shall regularly, but in no case less frequently than every three years:

A. assess whether sewage tanks leak below the designed operating depth and whether sewage tank tops, riser joints, and riser connections leak through visual evidence of major defects; and

B. measure or remove the accumulations of scum, grease, and other floating materials at the top of each septic tank and compartment, along with the sludge, which consists of the solids denser than water.

Subp. 3. **Removal of material.**

A. All solids and liquids must be removed by pumping from all tanks or compartments in which the top of the sludge layer is less than 12 inches from the bottom of the outlet baffle or transfer hole or whenever the bottom of the scum layer is less than three inches above the bottom of the outlet baffle or transfer hole. Total sludge and scum volume must not be greater than 25 percent of the tank's liquid capacity.

B. Removal of accumulated sludge, scum, and liquids from septic tanks and ~~dosing chambers~~ pump tanks must be through the maintenance hole~~, except for holding tanks that can be pumped through the cleanout pipe~~.

~~C. If no maintenance hole exists on a sewage tank that is perceived to be watertight below the designed operating depth, the owner or the owner's agent shall install one or more maintenance holes in sewage tanks according to part 7080.1970 to allow for maintenance to take place through the maintenance hole.~~ The removal of solids from any location other than the maintenance hole is not a compliant method of solids removal from a sewage tank, and this method does not fulfill the solids removal requirement of this part or a management plan. Liquid and solids removal from clean-out pipes is allowed for holding tanks.

~~D~~ C. After removal of solids and liquids, the system shall be brought into compliance with part 7080.1970, ~~items B and~~ item C. Covers secured by screws shall be refastened in all screw openings. If the maintenance hole does not extend to finish grade, it must be brought into compliance with part 7080.1970, item C, or secured by covering with a minimum of 12 inches of soil.

~~E. Dosing chambers~~ D. Pump tanks must be maintained according to this part. Sludge must be removed if within one inch of the pump intake.

Subp. 4. **Toilet waste treatment devices and privies.**

A. For primitive dwellings using toilet waste treatment devices in low dwelling density areas, septage disposal from these devices by the owner must be in accordance with local ordinances. If no ordinance exists, the septage must not be discharged to surface waters, drainageways, steeply sloping areas, or wet areas in a manner or volume that is harmful to the environment or public health or that creates a nuisance. The material must be buried or covered with soil. For site conditions not met in this subpart, the solids disposal from toilet waste treatment devices shall be according to subpart 6 by a licensed maintenance business.

B. When the privy is filled to one-half of its capacity, the solids must be removed. Abandoned pits must have the sewage solids and contaminated soil removed and must be filled with clean earth and slightly mounded to allow for settling. Removed solids shall be disposed of according to subpart 6.

Subp. 5. **Additives.** ISTS additives, which are products added to the sewage or to the system with the intent to lower the accumulated solids in sewage, must not be used as a means to reduce the frequency of proper maintenance and removal of sewage solids from the sewage tanks as specified in this part. The use of additives does not fulfill the solids removal requirement of this part or a management plan. ISTS additives that contain hazardous materials must not be used in an ISTS.

Subp. 6. **Septage disposal.** Septage or any waste mixed with septage must be disposed of in accordance with state, federal, or local requirements for septage and other wastes. If septage is disposed of into a ~~municipal~~ sewage or septage treatment facility, a written agreement must be provided between the accepting facility and the maintenance business.

Subp. 7. **Use of soil treatment site.** Activities on the current soil dispersal and treatment ~~and dispersal~~ system or the reserve soil dispersal and treatment ~~and dispersal~~ area as specified in part ~~7082.0100, subpart 3, item B, subitem (5)~~ 7082.0100, as published in the *State Register*, volume ~~31~~ 32, page ~~1083~~ 1417, and as subsequently adopted, that ~~may~~ impair the current or future treatment abilities or hydraulic performance of the soil treatment and dispersal system are prohibited. This includes, but is not limited to, covering all or part of the soil treatment system with an impermeable surface as determined by the local unit of government.

Subp. 8. **System remediation.** Any maintenance activity used to increase the acceptance of effluent to a soil treatment and dispersal system must:

A. not be used on a system failing to protect groundwater as defined in part 7080.1500, subpart 4, item B, unless the activities meet the requirements of parts 7080.2350 and 7080.2400;

B. not cause preferential flow from the soil treatment and dispersal system bottom to the ~~seasonally~~ periodically saturated soil or bedrock; and

C. be conducted by an appropriately certified qualified employee or an appropriately licensed business as specified in ~~chapter 7083~~ part 7083.0790, as published in the *State Register*, volume 31, page 1088, and as subsequently adopted.

Any substance added with the intent to increase the infiltration rate of the soil treatment and dispersal system must not contain hazardous substances.

7080.2500 SYSTEM ABANDONMENT.

Subpart 1. **Tank abandonment.** All systems with no future intent for use must be abandoned according to this part. Tank abandonment

procedures for sewage tanks, cesspools, leaching pits, drywells, seepage pits, vault privies, pit privies, and distribution devices must meet the requirements in items A to C.

A. All solids and liquids must be removed and disposed of according to part 7080.2450, subpart 6, by a licensed maintenance business.

B. All electrical devices and devices containing mercury must be removed and disposed of according to applicable regulations.

C. Abandoned tanks or any other underground cavities must be removed or remain in place and crushed with the remaining cavity filled with soil or rock material.

Subp. 2. **Future discharge.** Access for future discharge to the system must be permanently denied.

Subp. 3. **Removal of system.** If soil treatment and dispersal systems are removed, contaminated materials shall be properly handled to prevent human contact. Contaminated materials include distribution media, soil or sand within three feet of the system bottom, distribution pipes, tanks, and contaminated soil around leaky tanks. Contaminated material also includes any soil that received sewage from a surface failure. Contaminated materials must be disposed of according to items A to D.

A. Contaminated materials disposed of off-site must be disposed of according to part 7080.2450, subpart 6.

B. If contaminated material is to be spread or used on-site within one year of contact with sewage, the material must be placed in an area meeting the soil and setback requirements described in part 7080.2150, ~~subpart~~ subparts 2, item F, Table VII, and 3, item ~~D~~ C, and the material must be covered with a minimum of six inches of uncontaminated soil and protected from erosion. After one year following contact with sewage, the material ~~may~~ is allowed to be spread in any location meeting the setback requirement of part 4725.4450, covered with a minimum of six inches of uncontaminated soil, and protected from erosion. After one year following contact with sewage, the material ~~may~~ is allowed to be used to fill in the abandoned in-place sewage tanks.

C. Contaminated pipe, geotextile fabric, or other material must be dried and disposed of in a mixed municipal solid waste landfill.

D. The person or business abandoning the system must complete and sign a record of abandonment that states the system was abandoned according to this part. The record must be sent to the local unit of government within 90 days of abandonment.

7080.2550 SEEPAGE PITS, DRYWELLS, AND LEACHING PITS.

Subpart 1. **Intended use of this part.** This part must be used when conducting existing system compliance inspections. This part defines what constitutes seepage pit, drywell, or leaching pit systems. Seepage pit, drywell, or leaching pit systems are not considered compliant systems as determined in part 7080.1500, subpart 4, item B, but these existing systems may be allowed continued use under *Minnesota Statutes*, section 115.55, subdivision 5a, paragraph (f), by local units of government that have adopted alternative local standards for these systems under part ~~7082.0040~~ 7082.0050, subpart 5, as published in the *State Register*, volume 31, page ~~1079~~ 1081, and as subsequently adopted.

Subp. 2. **Requirements for seepage pits, drywells, and leaching pits.** A seepage pit, drywell, or leaching pit is a system that:

A. has a sewage tank that does not obviously leak below the designed liquid capacity preceding the pit;

B. has a pit that is not located in a geologic formation that is used as a source of drinking water;

C. has at least three feet of vertical separation from the bottom of the pit to the ~~seasonally~~ periodically saturated soil or bedrock;

D. has an absorption area that has been determined by ~~multiplying the average daily~~ dividing the design flow ~~under Table IV~~ in ~~part 7080.1860~~ parts 7080.1850 to 7080.1885 by the soil ~~sizing factor~~ loading rate under Table IX or IXa in part 7080.2150, subpart 3, item ~~F~~ E, based on the weighted average of each vertical stratum penetrated by the seepage pit, drywell, or leaching pit;

E. has a pit that has not been placed in a soil stratum with a ~~sizing classification~~ texture group of 1 or 4 in Table IX in part 7080.2150, subpart 3, item ~~F~~ E;

F. has a pit with a minimum inside diameter of five feet; and

G. meets all setback requirements.

REPEALER. *Minnesota Rules*, parts 7080.0010, 7080.0020, 7080.0025, 7080.0030, 7080.0060, 7080.0065, 7080.0110, 7080.0115, 7080.0120, 7080.0125, 7080.0130, 7080.0150, 7080.0160, 7080.0170, 7080.0172, 7080.0175, 7080.0176, 7080.0178, 7080.0179, 7080.0305, 7080.0310, 7080.0315, 7080.0600, 7080.0700, 7080.0705, 7080.0710, 7080.0715, 7080.0720, 7080.0800, 7080.0805, 7080.0810, 7080.0815, 7080.0820, 7080.0830, 7080.0850, 7080.0855, 7080.0860, 7080.0900, 7080.0920, and 7080.0950, are repealed.

Adopted Rules

Pollution Control Agency

Adopted Permanent Rules Relating to Subsurface Sewage Treatment Systems

The rules proposed and published at *State Register*, Volume 31, Number 33, pages 1023-1079, February 12, 2007 (31 SR 1023), are adopted with the following modifications:

7081.0010 PURPOSE AND INTENT.

The proper location, design, installation, use, and maintenance of midsized subsurface sewage treatment systems (MSTS) protects the public health, safety, and general welfare by the discharge of adequately treated sewage to the groundwater. In accordance with the authority granted in *Minnesota Statutes*, chapters 103F, 103G, 115, and 116, the Pollution Control Agency, hereinafter referred to as the agency, provides minimum environmental protection standards for MSTS as defined in this chapter.

These standards shall be adopted countywide and administered and enforced by local units of government as directed by chapter 7082, as published in the *State Register*, volume 31, page 1079, and as subsequently adopted, and *Minnesota Statutes*, section 115.55.

This chapter does not regulate subsurface treatment systems that do not receive sewage as defined in this chapter. If systems regulated under this chapter receive both sewage and nonsewage, the requirements of this chapter apply, plus any additional requirements governing the nonsewage portion of the wastewater. Systems serving two or more dwellings, systems serving other establishments that serve over 20 persons, and systems receiving nonsewage are also regulated under *Code of Federal Regulations*, title 40, parts 144 and 146.

This chapter does not contain design standards for sewage treatment systems that discharge to the ground surface or surface waters. Those systems require a National Pollution Discharge Elimination Systems permit.

Primarily, this chapter provides measurable performance outcomes for MSTS, but this chapter also includes limited design, construction, inspection, and operational standards that are believed to reasonably protect surface water, groundwater, public health, safety, general welfare, and the environment.

In conjunction with these standards, the agency encourages the use of advanced treatment methods and waste reduction to further reduce the discharge of contaminants.

Other chapters that have a bearing on MSTS are standards for individual subsurface sewage treatment systems in chapter 7080, administrative requirements for subsurface sewage treatment systems local permit and inspection programs in chapter 7082, as published in the *State Register*, volume 31, page 1079, and as subsequently adopted, and certification and licensing requirements for those who design, install, inspect, maintain, or operate subsurface sewage treatment systems and product registration in chapter 7083, as published in the *State Register*, volume 31, page 1088, and as subsequently adopted.

7081.0020 DEFINITIONS.

Subp. 3. **Groundwater mound.** "Groundwater mound" means the rise in height of the ~~seasonally~~ periodically saturated soil or regional water table caused by the addition of sewage effluent from a subsurface sewage treatment system into the soil.

Subp. 4. **Midsized subsurface sewage treatment ~~systems~~ system or MSTS.** "Midsized subsurface sewage treatment ~~systems~~ system" or "MSTS" means ~~a~~ an individual sewage treatment ~~and dispersal~~ system, or part thereof, as set forth in *Minnesota Statutes*, sections 115.03 and 115.55, that employs sewage tanks or other treatment devices with final discharge into the soil below the natural soil elevation or elevated final grade~~. MSTS are systems~~ and that is designed to receive sewage from~~:~~

~~A. four or more dwellings with an average daily sewage flow from all dwellings not to exceed 10,000 gallons per day;~~

~~B. other establishments with an average daily sewage flow of greater than 2,500 gallons per day and less than or equal to 10,000 gallons per day; or~~

~~C. a combination of other establishments and dwellings with an average daily sewage flow of greater than 2,500 gallons per day and less than or equal~~ dwellings or other establishments with a design flow of greater than 5,000 gallons per day to 10,000 gallons per day.

~~Average daily sewage~~ Design flows must be determined by part 7081.0110. MSTS also includes onlot septic tanks ~~discharging to a sewage collection system and,~~ holding tanks, and privies that serve these same facilities but does not include any pump tanks used in a sewage collection system. MSTS does not include those components defined as plumbing under chapter 4715 or sewage collection systems.

~~Subp. 7. **Sewage collection system.** "Sewage collection system" means the piping, lift stations, and other means, devices, or components that receives and conveys sewage to the inlet of a common sewage tank. Sewage collection system does not include the piping, or other means, devices, or components that are regulated under chapter 4715.~~

Subp. ~~8~~ 7. **SDS permit.** "SDS permit" means a state disposal system permit issued by the agency.

Subp. ~~9~~ 8. **Well capture zone.** "Well capture zone" means the surface and subsurface area that supplies water to a water supply well.

7081.0040 STATE REGULATION.

Subpart 1. **Agency regulation.**

B. When a single SSTS, or group of SSTS under single ownership within one-half mile of each other, are designed to treat ~~an average daily~~ a design flow greater than 10,000 gallons per day, the owner or owners shall make application for and obtain an SDS permit from the agency in accordance with chapter 7001. If the measured daily flows for a consecutive sevenday period exceed 10,000 gallons per day, an SDS permit is required.

C. An SDS permit ~~may be~~ is required for any subsurface sewage treatment system or group of subsurface sewage treatment systems that the commissioner ~~has determined may~~ determines has the potential or an increased potential to cause adverse public health or environmental impacts if not regulated under a state permit. Conditions for these ~~discretionary~~ permits include~~, but are not limited to,~~ systems in environmentally sensitive areas, unsubstantiated or unexpected flow volumes, and systems requiring exceptional operation, monitoring, and management.

D. Flow amounts to calculate whether an SDS permit is required must be determined according to part 7081.0110. The highest calculated value of the various methods in Table I under part 7081.0130, subpart 1, must be used to make this determination, with no reduction allowed. An SDS permit is not required if a factor of safety is added to the design flow that results in a design flow that is in excess of the SDS permit threshold.

7081.0050 FEDERAL REGULATION.

A. All subsurface sewage treatment systems serving two-family dwellings or larger and systems serving other sewage generating establishments that serve more than 20 people are regulated by the United States Environmental Protection Agency as Class V injection wells under *Code of Federal Regulations*, title 40, parts 144 and 146. ~~Systems designed under this chapter may require additional design requirements under~~ *Code of Federal Regulations*, title 40, parts 144 and 146, prescribe additional design regulations applicable to certain systems designed under this chapter. In addition, single-family dwellings systems that receive nonsewage wastewater are regulated by these federal regulations. All systems that receive hazardous wastes are regulated by the United States Environmental Protection Agency as Class IV injection wells. Disposal of hazardous waste must be according to state and federal regulations.

7081.0070 VARIANCE PROCEDURES.

Parts 7081.0080 to ~~7081.0310~~ 7081.0300 are provided to be incorporated into a local ordinance according to chapter 7082, as published in the *State Register*, volume 31, page 1079, and as subsequently adopted, and *Minnesota Statutes*, section 115.55. Variance requests to these design standards as adopted into local ordinances made by an owner or owner's agent must be issued or denied by the local unit of government. Variances ~~may~~ must not be issued by the local unit of government for the minimal environmental protection outcomes in part 7081.0080, subparts 2 to 5. Variances may be granted to part 7081.0080, subpart 4, item D, subitem (1), for replacement MSTS serving existing dwellings or other establishments.

7081.0080 PERFORMANCE AND COMPLIANCE CRITERIA.

Subpart 1. **General.** New construction, replacement, or existing MSTS designed under this chapter ~~or existing MSTS constructed before the effective date of this chapter~~ are considered conforming if they meet the requirements of this part.

Existing MSTS constructed before the effective date of this chapter are considered conforming if they meet the requirements of this part, except for subpart 4, items D and E.

Subp. 3. **Public health and safety; imminent threat.**

B. MSTS ~~may~~ must be deemed an imminent threat to public health or safety for noncompliance with item A and any other condition that poses an imminent threat as determined by a qualified employee MSTS inspector or licensed MSTS inspection business.

Subp. 4. **Groundwater protection.** To be in compliance, all MSTS must:

A. maintain a zone of unsaturated soil between the bottom of the soil treatment and dispersal system and the ~~seasonally~~ periodically saturated soil or bedrock during loading of effluent, as described in part 7081.0270, subpart ~~7~~ 8;

Subp. 6. **System operation.** To be in compliance, an MSTS must meet performance standards and be operated and managed according to its operating permit and management plan, as described in part 7081.0290. To be in compliance, an MSTS designed before the effective date of this part must be operated according to applicable requirements of part 7080.2450, as published in the *State Register*, volume 31, page 1061, and as subsequently adopted.

Subp. 7. **Compliance criteria for systems receiving replacement components.** Components of existing MSTS that cause noncompliance must be repaired or replaced. The repaired or replacement components must meet technical standards and criteria in parts 7081.0110 to 7081.0280. The remaining components of the existing system must comply with subparts 2 to 5, including subpart 4, item D, if constructed after the effective date of this chapter.

7081.0100 PROFESSIONAL REQUIREMENTS.

Systems must be designed, installed, inspected, operated, and maintained by appropriately licensed businesses and certified individuals according to chapter 7083, as published in the *State Register*, volume 31, page 1088, and as subsequently adopted, and other ~~applicable~~

requirements.

7081.0110 SEWAGE FLOW DETERMINATION.

The ~~average daily~~ design flow is the combined values determined in parts 7081.0120, 7081.0130, and 7081.0140.

7081.0120 ~~AVERAGE DAILY~~ DESIGN FLOW DETERMINATION FOR DWELLINGS.

Subpart 1. **Sum of ~~average daily~~ design flow for ~~four to ten~~ existing dwellings.** The ~~average daily~~ design flow for MSTS serving ~~four to ten~~ existing dwellings is ~~the sum of the average daily flows for all individual dwellings as~~ determined ~~in~~ by the following calculation in conjunction with part 7080.1850, as published in the *State Register*, volume 31, page 1043, and as subsequently adopted~~.~~:

the total flow from the ten highest flow dwellings +
(total flow from the remaining dwellings * 0.45)

~~Subp. 2. **Sum of average daily flow for 11 existing dwellings to 10,000 gallons per day.** The average daily flow for MSTS serving 11 existing dwellings to flow from existing dwellings not exceeding 10,000 gallons per day is determined in part 7080.1850, as published in the *State Register*, volume 31, page 1043, and as subsequently adopted. Classification I dwellings may be considered Classification II dwellings.~~

Subp. ~~3~~ 2. **New housing developments.** For new housing developments, the developer shall determine and restrict the total number of bedrooms for the development and determine the ~~average daily~~ design flow by multiplying the total number of bedrooms by ~~150 gallons for MSTS serving four to ten proposed dwellings and by~~ 110 gallons per bedroom ~~for MSTS serving 11 or more proposed dwellings~~. If the ultimate development of phased or segmented growth meets or exceeds the thresholds in part 7081.0040, subpart ~~2~~ 1, item B, the initial system or systems and all subsequent systems require a state disposal system permit.

Subp. ~~4~~ 3. **Additional capacity.** If construction of additional dwellings or bedrooms, installation of additional water-using devices, or other factors likely to increase the flow volumes can be reasonably anticipated, the MSTS must be designed to accommodate the additional capacity as determined by the local unit of government.

7081.0130 FLOW AND WASTE CONCENTRATION DETERMINATION FOR OTHER ESTABLISHMENTS.

Subpart 1. **Method.** ~~Average daily~~ Design flows for other establishments are determined by methods in item A or B.

A. The ~~average daily~~ design flow of sewage for MSTS serving other establishments is estimated using Table I.

TABLE I
ESTIMATED DESIGN SEWAGE FLOW FROM OTHER ESTABLISHMENTS

Dwelling units (also see outdoor recreation)	Unit	~~Average daily~~ Design flow (gal/day/unit)
Hotel or luxury hotel	guest	55
	square foot	0.28
Motel	guest	38
	square foot	0.33
Rooming house	resident	45
	add for each nonresident meal	3.3
Daycare (no meals)	child	19
Daycare (with meals)	child	23
Dormitory	person	43
Labor camp	person	18

Labor camp, semipermanent	employee	50
Commercial/Industrial		
Retail store	square foot	0.13
	customer	3.8
	toilet	590
Shopping center	employee	11.5
	square foot	0.15
	parking space	2.5
Office	employee/8hour shift	18
	square foot	0.18
Medical office*	square foot	1.1
	practitioner	275
	patient	8
Industrial building*	employee/8hour shift	17.5
	employee/8hour shift with showers	25
Laundromat	machine	635
	load	52.5
	square foot	2.6
Barber shop*	chair	68
Beauty salon*	station	285
Flea market	nonfood vendor/space	15
	limited food vendor/space	25
	with food vendor/space	50
Eating and drinking establishments		
Restaurant (does not include bar or lounge)	meal without alcoholic drinks	3.5
	meal with alcoholic drinks	8
	seat (open 16 hours or less)	30
	seat (open more than 16 hours)	50
	seat (open 16 hours or less, single service articles)	20

	seat (open more than 16 hours, single service articles)	35
Restaurant (short order)	customer	7
Restaurant (drive in)	car space	30
Restaurant (carry out, including caterers)	square foot	0.5
Institutional meals	meal	5.0
Food outlet	square foot	0.2
Dining hall	meal	8.5
Coffee shop	customer	7
Cafeteria	customer	2.5
Bar or lounge (no meals)	customer	4.5
	seat	36
Entertainment establishments		
Drivein theater	car stall	5
Theater/ auditorium	seat	4.5
Bowling alley	alley	185
Country club	member (no meals)	22
	member (with meals and showers)	118
	member (resident)	86
Fairground and other similar gatherings	visitor	1.5
Stadium	seat	5
Dance hall	person	6
Health club/gym	member	35

Outdoor recreation and related lodging facilities		
Campground	person with hookup	36
	site with hookup	100
	site without hookup, with central bath	62
	site to be served by dump station	14.5
Permanent mobile home	mobile home	225
Camp, day without meals	person	20
Camp, day with meals	person	25
Camp, day and night with meals	person	45
Resort/lodge hotel	person	62
Cabin, resort	person	50
Retail resort store	customer	4
Park or swimming pool	guest	10
Visitor center	visitor	13
Transportation		
Gas station/ convenience store	customer	3.5
Service station*	customer	11
	service bay	50
	toilet	250
	square foot	0.25
Car wash* (does not include car wash water)	square foot	5
Airport, bus station, rail depot	passenger	5
	square foot	5
	restroom	565

Institutional		
Hospital*	bed	220
Mental health hospital*	bed	147
Prison or jail	inmate	140
Nursing home, other adult congregate living	resident	125
Other public institution	person	105
School (no gym, no cafeteria, and no showers)	student	14
School (with cafeteria, no gym and no showers)	student	18
School (with cafeteria, gym, and showers)	student	27.5
School (boarding)	student	95
Church	seat	4
	add for each meal prepared	5
Assembly hall	seat	4
Miscellaneous		
Public lavatory	user	5
Public shower	shower taken	11

* Waste other than sewage ~~may~~ is only allowed to be discharged into the system if the waste is suitable to be discharged to ~~a subsurface soil treatment and dispersal system~~ groundwater.

Unless otherwise noted in Table I, the flow values do not include flows generated by employees. A flow value of 15 gallons per employee per eight-hour shift must be added to the flow amount. ~~Average daily~~ Design flow determination for establishments not listed in Table I shall be determined by the best available information and approved by the local unit of government.

B. The measured ~~average daily~~ design flow of sewage for MSTS serving other establishments is determined by averaging the measured daily flows for a consecutive seven-day period in which the establishment is at maximum capacity or use.

Subp. 2. **Waste concentration.** If concentrations of biochemical oxygen demands, total suspended solids, and oil and grease from the sewage are expected to be higher than 175 mg/1, 65 mg/1, or 25 mg/1 respectively, an estimated or measured average concentration must be determined and be acceptable to the local unit of government. System design must account for concentrations of these constituents so as not to cause internal system malfunction, such as, but not limited to, clogging of pipes, orifices, treatment devices, or media. ~~Waste strength loading to soil treatment and dispersal systems must not exceed the concentration for these constituents in excess of the values~~

~~in Table III in part 7081.0270, subpart 6.~~

7081.0140 INFILTRATION.

The ~~average daily~~ design flow must also include 200 gallons of infiltration and inflow per inch of collection pipe diameter per mile per day with a minimum pipe diameter of two inches to be used for the calculation. Flow values ~~may~~ are allowed to be further increased if the system employs treatment devices that are exposed to atmospheric conditions that will infiltrate precipitation. Flow estimates as calculated in this chapter shall not be relied upon for the design of collection systems.

7081.0150 NECESSITY OF SOIL AND SITE EVALUATIONS.

Soil and site evaluations must be conducted for MSTS design. The evaluations must be conducted according to parts 7081.0160 and ~~7081.0170~~ 7081.0200. Evaluations must identify and delineate an initial and replacement soil treatment and dispersal area with appropriate system site boundaries.

7081.0160 PRELIMINARY EVALUATION.

A preliminary evaluation consists of determining:

A. the ~~average daily~~ design flow and anticipated effluent concentrations of biochemical oxygen demand, total suspended solids, and fats, oils, and grease;

B. whether the location of water supply wells ~~may impact~~ impacts the location of the system due to the setback constraints;

C. whether buildings or improvements will be within 50 feet of the proposed soil ~~treatment~~ dispersal area;

~~H. whether designated wetlands will be within 50 feet of the proposed soil treatment area or whether a wetland delineation has been conducted or is required to be conducted on the property;~~

~~I.~~ the required setbacks from the proposed soil treatment and dispersal system;

~~J.~~ I. the soil survey information on the proposed soil dispersal area, including the soil map, map units, landscape position, parent material, flooding potential, slope range, ~~seasonally~~ periodically saturated soil level, depth to bedrock, texture, color, and structure of soil horizons, and permeability of soil horizons;

~~K.~~ J. the ~~legal description~~ township, range, section number, and other unique property identifiers, as required by the local unit of government, dimensions, and size of the proposed soil treatment area;

~~L.~~ K. the names of property owners; and

~~M.~~ L. the location of the system on a United States Geological Survey quadrangle map of the proposed soil treatment and dispersal area and the area within one mile.

7081.0170 FIELD EVALUATION.

Subp. 2. **Property marks.** Property lines must be identified as acceptable to the owner. ~~Lot~~ Site improvements, required setbacks, and easements must be identified, located, and marked.

Subp. 3. **Site area.** A general evaluation and description of the proposed soil ~~treatment and~~ dispersal area, including a general geomorphic description, current land use, and past land use, if known, must be provided.

Subp. 4. **Surface features.** The following surface features must be identified and described:

C. landscape position, including landform, slope gradient, slope direction, and surface morphometry as described in the Field Book for Describing and Sampling Soils Version 2.0, September 2002, developed by the National Soil Survey Center and Natural Resources Conservation Service of the United States Department of Agriculture. The field book is incorporated by reference, is not subject to frequent change, and is available through the Minitex interlibrary loan system.

Subp. 5. **Soil pits.**

~~B. Soil borings may be substituted for soil pits if conditions exist where soil pits are not warranted as determined by the local unit of government.~~

~~C.~~ The qualifying soil pits or borings to be used for the MSTS design must be located ~~within or~~ on or near the borders of the proposed soil treatment and dispersal area. Soil pits ~~or soil borings~~ must be dug outside the soil dispersal area if possible. The soil must be observed and described to a depth of at least three feet below the proposed depth of the system. Other soil observations ~~may~~ are allowed to be made to supplement the required soil pit information.

~~D.~~ C. Underground utilities must be located before soil observations are undertaken. Required safety precautions must be taken before entering soil pits.

Subp. 6. **Soil description.**

A. The soil properties and features in subitems (1) to (13) must be described according to Field Book for Describing and Sampling Soil, version 2, Natural Resources Conservation Service, United States Department of Agriculture (September 2002), for each soil horizon at each qualifying soil pit ~~or boring~~. The field book is incorporated by reference under subpart 4, item C.

(3) Abundance, size, color, and contrast of redoximorphic features.

(13) Any other characteristic or feature that ~~may affect~~ affects permeability of the soil or treatment of sewage effluent.

B. The depth of bedrock, if encountered, must be determined by requirements of part ~~7080.0020~~ 7080.1100, subpart ~~6~~ 8, as published in the *State Register*, volume 32, page 1348, and as subsequently adopted.

C. The elevation of standing water evident in any soil pit ~~or boring~~ must be identified.

Subp. 7. **Method.** ~~A method for determining the soil's infiltration capacity in the absorption area and internal water movement of the soil beneath the system must be employed. Both~~ Hydraulic conductivity testing of the soil must be employed, ~~or other equivalent physical measurement of water movement,~~ along with a ~~soil morphological~~ determination of the soil's texture, structure, and consistence, ~~must be employed~~ to determine the loading rate of effluent to the soil. ~~Soil sizing factors in part 7080.2150, subpart 3, item G, as published in the *State Register*, volume 31, page 1053, and as subsequently adopted, are recommended if the degree of groundwater mounding is found to be acceptable.~~ The frequency of the observations and measurements must be determined by the professional judgment of the designer, dependent on the variation in soil conditions and the system size, with the frequency of the observations and measurements approved by the local unit of government.

Subp. 8. **Comparison with soil survey.** All field soil information gathered must be compared ~~and evaluated against~~ with soil survey information. Any discrepancies shall be identified ~~and justification shall be provided for the information that was chosen for system design~~.

7081.0180 SOIL INTERPRETATION FOR SYSTEM DESIGN.

Subpart 1. **Site and soil information.** Site and soil information gathered in parts 7081.0160 and 7081.0170 must be interpreted for suitability for MSTS siting, design, and construction, with consideration of the following:

A. surface features impacts from precipitation, run-on, and interflow or any other item that could have potential to adversely impact the ability of the soil to accept water;

I. an approximation of the rise in groundwater from system operation as determined by groundwater mounding calculations. A narrative evaluation of the accuracy of the approximation must be provided. The approximation must be related to the requirements in part 7081.0270, subpart ~~3, item B~~ 6.

Subp. 3. **Depth.** The limiting layer in the soil shall be determined based on the depth of bedrock or ~~seasonally~~ periodically saturated soil if encountered. The depth to the ~~seasonally~~ periodically saturated soil shall be determined according to part 7080.1720, subpart 5, item E, as published in the *State Register*, volume 31, page 1042, and as subsequently adopted, and the depth of bedrock shall be as defined under part 7080.1100, subpart ~~10~~ 8, as published in the *State Register*, volume 31, page 1026, and as subsequently adopted.

7081.0200 SOIL AND SITE REPORT.

All information required in parts 7081.0150 to 7081.0180 must be submitted for review and approval by the local unit of government prior to final design. The submittal must also contain:

A. a map of the proposed soil ~~treatment and~~ dispersal area, drawn to scale, showing:

(5) two-foot contour lines~~, unless use of the contours are not warranted as determined by the local unit of government~~;

C. elevations of the ~~seasonally~~ periodically saturated soil or bedrock;

E. proposed soil ~~sizing factor or~~ loading rate;

7081.0210 GROUNDWATER INVESTIGATION.

Subp. 2. **Preliminary investigation.** The following information must be ascertained from the best available information:

A. the size of the soil ~~treatment and~~ dispersal system, proposed loading rate, and system geometry;

B. the ~~legal description~~ township, range, section number, and other unique property identifiers, as required by the local unit of government, of the parcel where the proposed soil ~~treatment and~~ dispersal area is to be located;

D. the location of the MSTS on a ~~7.5 minute~~ United States Geological Survey quadrangle topographic map, including the area within a one-mile radius of the proposed soil treatment system;

E. a determination of the general geology, ~~shallow groundwater setting~~ periodic soil saturation, regional groundwater setting, and aquifers used for water supply and a description of the general site hydrology characteristics, including, but not limited to, identification and estimated depth measurements to geologic units and aquifers, and identification of groundwater confining strata;

Subp. 4. **Monitoring.** The designer must consult with the local unit of government to determine if the local unit of government will require effluent or groundwater monitoring and, if so, the extent of the monitoring. Monitoring ~~should~~ must be conducted if information gained in subpart 2 or 3 indicates that a proposed system is a potential contaminant threat to a regional water table, an aquifer, or a water supply well or impacts surface waters. The potential groundwater mound height must be monitored under all MSTS during operation.

Subp. 5. **Hydrological interpretations.** The information gathered in this part must be used to estimate or measure if the system adequately protects the groundwater and surface water as prescribed in part 7081.0080, subpart 4. The interpretation must include ~~a determination~~ an evaluation of whether contaminant plumes ~~may~~ will intersect water supply well capture zones.

7081.0230 DESIGN STANDARDS.

C. All structural components of the system and sealants must be designed to ~~meet or exceed a 25-year~~ operate throughout the system's design life.

F. MSTS must employ components registered under ~~part 7080.1600~~ parts 7083.4000 to 7083.4110, as published in the *State Register*, volume ~~31~~ 32, page ~~1032~~ 1427, and as subsequently adopted, or have sufficient regulatory oversight in the operating permit.

7081.0240 SEWAGE TANKS.

Subpart 1. **General.** All holding or treatment tanks or vessels, including lined vessels and grease interceptors serving MSTS, must conform to the applicable requirements of ~~parts 7080.1910 to 7080.2020~~ part 7080.1900, as published in the *State Register*, volume 31, ~~pages~~ page 1044 ~~to 1048~~, and as subsequently adopted, except as modified in this part or as designed by a professional engineer and approved by the local unit of government.

Subp. 2. **Tank capacity.**

A. Total septic tank capacity must be in accordance with this item.

(1) Total septic tank liquid capacity for a common tank serving multiple dwellings under gravity flow to the common tank are determined by multiplying the ~~average daily~~ design flow by 3.0.

(2) Total septic tank liquid capacity for a common tank serving multiple dwellings under pressure flow to the common tank is determined by multiplying the ~~average daily~~ design flow by 4.0.

(3) Common multiple septic tanks ~~may~~ must be connected in series ~~or multiple tanks may operate in parallel if it can be demonstrated that each tank will be loaded within its design capacity. No tank connected in series or any compartment may have a capacity of less~~ Individual tanks connected in series or any compartment of a tank must have a capacity of more than one-fourth of the required total liquid capacity.

B. For MSTS that have individual septic tanks at each dwelling, the individual tanks must meet ~~all~~ the requirements of ~~parts 7080.1910 to 7080.2020~~ part 7080.1900, as published in the State Register, volume 31, ~~pages~~ page 1044 ~~to 1048~~, and as subsequently adopted. Stilling tanks ~~should~~ must be installed between the individual tanks and the next system component as necessary to prevent damage from surging.

C. Total septic tank liquid capacity for other establishments with domestic strength waste is determined by multiplying the ~~average daily~~ design flow by 3.0 if receiving sewage under gravity flow or multiplying the ~~average daily~~ design flow by 4.0 if receiving sewage under pressure flow. Additional septic tank capacities or equalization tanks with pretreatment may be necessary for high strength waste sources connected to the MSTS.

E. Holding tanks serving other establishments must provide storage of at least five times the ~~average daily~~ design flow.

Subp. 3. **Lint filters, effluent screens, and pressure filters.** Effluent screens must be used as the outlet baffle on the final septic tank or pressure filters must be used in the ~~dosing chamber~~ pump tank if common tanks are employed in series. Alarms must be employed on tanks equipped with effluent screens. Lint filters ~~should be used~~ are recommended if the sewage contains laundry waste.

Subp. 4. **Tank geometry.**

A. For common septic tanks, the maximum liquid depth of septic tanks to determine liquid capacity must be no greater than 84 inches. ~~Septic tanks should have a minimum~~ The length-to-width ratio ~~of two to one and a minimum~~ and the length-to-depth ratio ~~of 3.5 to one. Tanks not meeting these dimensions should be monitored for biological oxygen demand and total suspended solids concentrations for a period of time as determined by the local unit of government~~ must facilitate settling of solids.

Subp. 7. **External grease interceptors.** A commercial or institutional food preparation facility such as, but not limited to, a restaurant, cafeteria, or institutional kitchen, served by a system regulated under this chapter, the system design for which was submitted to the local unit of government after the effective date of this part, shall install an external grease interceptor unless other grease control measures are taken and approved by the local unit of government. ~~All existing facilities described in this subpart should install and maintain an external grease interceptor or other grease control measures. The requirements for external grease interceptors are in chapter 4715~~ This grease interceptor will be considered part of the SSTS system.

7081.0250 DISTRIBUTION OF EFFLUENT.

Distribution of effluent into a soil treatment and dispersal system must comply with part 7080.2050, as published in the State Register, volume 31, page 1048, and as subsequently adopted, or be designed by a registered professional engineer and approved by the local unit of government. MSTS ~~should~~ must employ pressure distribution. The distribution system must be designed to dose and rest zones in accordance with operational requirements.

7081.0260 DOSING OF EFFLUENT.

B. The dosing system must ~~either~~ include an alternating two-pump system ~~or~~ and have a minimum total capacity of ~~100~~ 50 percent of the ~~average daily~~ design flow.

C. The pump discharge capacity must be based on the ~~perforations~~ perforation's discharge, with a minimum average head of two feet

for 1/4 inch and 3/16 inch perforations and five feet for 1/8 inch perforations.

7081.0270 FINAL TREATMENT AND DISPERSAL.

Subpart 1. **General.** Final treatment and dispersal ~~should~~ must be according to applicable design requirements in chapter 7080, except as modified in this part. ~~Systems designed under this part may require additional design requirements pursuant to~~ *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. ~~This chapter does not require a setback to a wetland, but a local setback may exist.~~

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 4715 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. **Soil system sizing and hydraulic performance.**~~

~~A. Effluent loading rates to the soil shall not be in excess of the soil's ability to infiltrate and transmit effluent as determined by the observations and measurements in part 7081.0170, subpart 7.~~

~~B. The groundwater mound formed from an operating MSTS must not infringe on the unsaturated zone beneath the soil system necessary to meet the requirements in part 7081.0080, subpart 4, item C, and for proper hydraulic functioning.~~

~~C. The site of the soil treatment and dispersal system derived from items A and B must be designed and constructed with a 50 percent increase in sizing. In addition to that increase, a 50 percent replacement soil treatment and dispersal land area must be identified and protected for future use if necessary. Replacement MSTS proposed on sites that cannot meet this requirement may be exempted by the local unit of government.~~

Subp. ~~4.~~ 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 ~~size classification of one to 13~~ soil loading rate of greater than zero as listed in Table IX or IXa, in part 7080.2150, subpart 3, item ~~G~~ E, as published in the *State Register*, volume 31, page 1053, and volume 32, page 1375, and as subsequently adopted; and

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

B. meet the area size requirements in subpart ~~3~~ 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 ~~of precipitations~~ from precipitation will concentrate (~~swale~~ concave hillslope); and

E. allow the system to be placed on contour.

Subp. ~~5.~~ 4. **Inspection pipes.** Inspection pipes must be located to adequately assess the hydraulic performance of the entire soil ~~treatment and~~ dispersal system.

Subp. ~~6.~~ 5. **Soil ~~loading requirements~~ absorption area sizing.** ~~Loadings of sewage solids per square foot of bottom and side wall absorption area must not be in excess of the most limiting constituent as determined in Table III.~~

~~Table III~~

~~Waste Strength Loading Rates~~

~~Soil Texture Group**~~	~~lbs of BOD/100 ft²/day of total absorption area*~~	~~lbs of TSS/100 ft²/day of total absorption area*~~	~~lbs of oil and grease/100 ft²/day of total absorption area*~~
~~1 and 2~~	~~0.13~~	~~0.049~~	~~0.019~~
~~4~~	~~0.086~~	~~0.032~~	~~0.012~~
~~3, 5, and 6~~	~~0.066~~	~~0.024~~	~~0.009~~
~~7 and 9~~	~~0.055~~	~~0.020~~	~~0.008~~
~~8, 10, and 12~~	~~0.050~~	~~0.018~~	~~0.007~~
~~11 and 13~~	~~0.036~~	~~0.014~~	~~0.005~~
~~15~~	~~0.026~~	~~0.010~~	~~0.004~~

~~*To determine the loading to the soil treatment system, the following calculation must be used:~~
~~Waste strength loading rate (lbs/ft²/day) = constituent concentration (ppm) x .00000834 x hydraulic loading rate of total absorption area/day (gal/ft²/day). The constituent concentration for soil treatment and dispersal system design must be the concentration from the pretreatment device according to the device's product registration designation. Constituent concentration loading rate is based on bottom and sidewall absorption area.~~
~~**Soil textural groups can be found in Table IX, part 7080.2150, subpart 3, item F, as published in the *State Register*, volume 31, page 1053, and as subsequently adopted.~~

A. Effluent loading rates to the soil shall not exceed the soil's ability to infiltrate and transmit effluent as determined by the observations and measurements in part 7081.0170, subpart 7, and must be no greater than loading rates prescribed in:

(1) part 7080.2150, subpart 3, item E, Table IX or IXa, as published in the State Register, volume 31, page 1052, and volume 32, page 1375, and as subsequently adopted, if the absorption area receives treatment level C effluent as described in part 7083.4030, as published in the *State Register*, volume 32, page 1430, and as subsequently adopted; or

(2) part 7080.2350, subpart 3, Table XII or XIIa, as published in the *State Register*, volume 32, page 1390, and as subsequently adopted, if the absorption area receives effluent meeting treatment levels A or B in part 7083.4030, as published in the *State Register*, volume 32, page 1430, and as subsequently adopted; or

(3) part 7080.2400, as published in the *State Register*, volume 31, page 1061, and as subsequently adopted, if allowed by the local unit of government.

B. If the absorption area receives effluent as described in item A, subitem (1), 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 setaside 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, as published in the *State Register*, volume 32, page 1430, and as subsequently adopted, or designed in accordance with part 7080.2400, as published in the *State Register*, volume 31, page 1061, and as subsequently adopted. 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, as published in the *State Register*, volume 32, page 1430, and as subsequently adopted. 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. ~~7.~~ 8. **~~Vertical separation distance~~ Soil treatment zone.** ~~An unsaturated zone must be maintained between the bottom of the soil treatment and dispersal system and the seasonally saturated soil or bedrock during loading of effluent. This operating vertical separation distance must meet the groundwater protection objectives in part 7081.0080, subpart 4, item C. The designed vertical separation distance shall take into consideration:~~

~~A. soil texture in the treatment zone;~~

~~B. effluent loading rate to the soil;~~

~~C. effluent dosing frequency;~~

~~D. system width and depth as it affects oxygen transfer from the atmosphere;~~

~~E. the height of the capillary fringe in the unsaturated zone;~~

~~F. groundwater mounding;~~

~~G. concentrations of contaminants in the effluent;~~

~~H. hydraulic head over bottom absorption area; and~~

~~I. factor of safety.~~ 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 C effluent as described in part 7083.4030, as published in the *State Register*, volume ..., page ...., and as subsequently adopted, the soil treatment zone requirements must meet or exceed the requirements of part 7080.2150, subpart 3, item C, as published in the *State Register*, volume 31, page 1051, and volume ..., page ...., and as subsequently adopted. The required threefoot 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, as published in the *State Register*, volume ..., page ...., and as subsequently adopted, the soil treatment requirements must meet or exceed the requirements of subitems (1) to (4):

(1) a minimum vertical depth of the soil treatment and dispersal zone below the distribution media shall be determined according to part 7080.2350, subpart 2, Table XI, as published in the *State Register*, volume 31, page 1059, and as subsequently adopted, with a minimum vertical separation of two feet. This zone shall meet criteria in units (a) to (c):

(a) the zone must be above the periodically saturated soil and bedrock. The zone must be continuous and not be interrupted by seasonal zones of saturation;

(b) any soil layers with a sizing texture group of 1 or 4 in Table IX in part 7080.2150, subpart 3, item E, as published in the *State Register*, volume 31, page 1052, and as subsequently adopted, must not be credited as part of the necessary treatment zone; and

(c) the entire treatment zone depth must be within seven feet from final grade;

(2) the distribution system or media must not place a hydraulic head greater than 30 inches above the bottom of the absorption area;

(3) the system's absorption area must be original soil; and

(4) the system's absorption area must be sized according to subpart 6.

C. The minimum vertical separation can be determined by the method described in part 7080.2400, as published in the *State Register*, volume 31, page 1061, and as subsequently adopted, 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 ~~seasonally~~ periodically saturated soil beneath the operating system must be installed and monitored according to the operating permit.

Subp. ~~8.~~ 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. ~~9.~~ 10. **Phosphorus reduction.** Phosphorus mitigation methods must be employed to achieve compliance with part 7081.0080, subpart 4, item ~~D~~ E, if natural processes are found inadequate.

Subp. ~~10.~~ 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.

7081.0290 OPERATION AND MAINTENANCE.

A. ~~System maintenance~~ New and existing systems must be maintained according to part 7080.2450, as published in the *State Register*, volume 31, page 1061, and as subsequently adopted, except as modified in this part.

B. All external grease interceptors must be routinely inspected to determine the volume of grease present. All external grease interceptors must be ~~cleaned when the volume of external grease equals no more than 50 percent of the liquid capacity of the tank~~ properly maintained to prevent clogging of downstream piping and system components.

C. For all systems constructed after the effective date of this chapter, the designer must complete an operation and maintenance manual and the manual must be ~~approved by~~ submitted to the local unit of government before system operation. The manual shall include a copy of the plans and specifications, asbuilt drawings of the system, and information to properly operate the system.

D. All new systems shall be operated under a local operating permit submitted and approved with the design.

E. All groundwater shall be monitored in accordance with part 7081.0210, subpart 4.

F. Any operational noncompliance must be immediately corrected and reported by the owner or service provider to the local unit of government.

~~**7081.0310 SYSTEM OWNERSHIP AND RESPONSIBILITY.**~~

~~Subpart 1. **Ownership.** MSTS may be owned by a sole individual, a group of individuals, or a private management entity or publicly held. The owner or owners are responsible for operation, maintenance, repairs, replacement, and compliance as required by this part.~~

~~Subp. 2. **Regulation.** MSTS serving multiple dwellings must be owned by a legal and responsible entity. The entity must have the ability to perform and must perform the following functions:~~

~~A. apply for and obtain construction and operating permits;~~

~~B. ensure submittal of required reporting and compliance status to the local unit of government;~~

~~C. negotiate contracts as necessary;~~

~~D. develop administrative processes;~~

~~E. impose fees for operation, management, and replacement of the system;~~

~~F. obtain financing;~~

~~G. provide annual education to users on suitable discharges; and~~

~~H. monitor compliance with local ordinance requirements.~~

~~Subp. 3. **Certification.** The owner or owners of MSTS serving multiple dwellings must submit to the local unit of government a certification of financial viability. The certification shall include:~~

~~A. a copy of the title to all MSTS physical assets; and~~

~~B. the method by which the system operation, maintenance, repairs, and replacement will be financed.~~

~~Subp. 4. **Sale.** The owner or owners of MSTS serving multiple dwellings must not sell, assign, or divest the system without notification to the local unit of government. The system shall be free of any liens, judgments, or encumbrances.~~

~~Subp. 5. **Continuation.** The owner of MSTS serving multiple dwellings shall provide a financial instrument or mechanism in an amount sufficient to continue the operation, maintenance, management, and repairs of the system for a period of one year if the owner fails to fulfill the owner's or operator's financial support of the system.~~

Pollution Control Agency

Adopted Permanent Rules Relating to Individual Sewage Treatment Systems

The rules proposed and published at *State Register*, Volume 31, Number 33, pages 1023-1088, February 12, 2007 (31 SR 1023), are adopted with the following modifications:

7082.0010 PURPOSE AND INTENT.

Subp. 3. **Local ordinances; construction.** Local ordinances referencing individual sewage treatment rules issued by the agency shall be construed to mean rules governing both individual subsurface sewage treatment systems and mid-sized subsurface sewage treatment systems, as defined in parts 7080.1100, subpart ~~45~~ 41, and 7081.0020, subpart 4, as published in the *State Register*, volume 31, page 1027, and as subsequently adopted.

7082.0040 REGULATORY ADMINISTRATION RESPONSIBILITY.

Subp. 2. **County responsibilities.**

A. All counties must adopt and ~~effectively enforce~~ implement SSTS ordinances in compliance with chapters 7080 and 7081, as published in the *State Register*, volume 31, pages 1025 and 1064, and as subsequently adopted, that also comply with this chapter. Ordinances must apply to all land area within the county, except in towns and cities that have adopted ordinances that ~~comply~~ are in conformance with the county ordinance and this chapter.

~~B.~~ All counties with SSTS ordinances must~~:~~

~~(1)~~ permit and inspect SSTS within cities and townships that do not administer an ~~effective~~ SSTS ordinance~~; and~~

~~(2) determine if city and township ordinances are technically and administratively as strict as the county ordinance~~ that complies with these rules.

B. Counties must send written invitations to all cities and townships within the county soliciting their input and involvement with the county-coordinated process of establishing countywide SSTS ordinance standards.

Subp. 3. **City and township responsibilities.** Cities and townships with SSTS ordinances must effectively administer and enforce an ordinance that conforms with ~~the county's regulatory strategy~~ this chapter and is administratively and technically as strict as the county ordinance, as determined by the ~~county~~ agency. ~~Before~~ Cities ~~or~~ and townships ~~can adopt an SSTS ordinance, the county must be consulted and concur with the ordinance~~ are authorized to adopt conventional programs as described in part 7082.0050, subpart 3, even if the county has adopted a performance program.

Subp. 4. **Required fiscal and physical capacity for local programs.** All local governments that administer SSTS programs must have:

A. adequate personnel to properly conduct SSTS technical and administrative functions. All local governments that administer SSTS programs must have:

(1) at least one certified inspector as described in part 7083.1010, subpart 2, as published in the *State Register*, volume 31, page 1094, and as subsequently adopted, who is employed by the local unit of government or a contracted licensed SSTS inspection business. ~~The person may also be contracted for services by~~ Multiple local units of government are allowed to contract for services with the same certified inspector; and

(2) at least one person who is employed by the local unit of government who has received accredited training on administration of local SSTS programs; and

B. an enforceable ordinance that meets the requirements of this chapter~~; and~~

~~C. budget and staff appropriate to administer the provisions of the ordinance~~.

Subp. 5. **Reporting requirements for all local programs.** Local units of government that administer SSTS programs must provide an annual report to the commissioner. The report must be submitted to the commissioner no later than February 1 for the previous calendar year. The reports must include:

C. the number of permits issued in the reporting year in the following categories:

	~~0-2,499 gallons per day~~	~~2,500-9,999 gallons per day~~	~~Other establishments*~~
~~New construction~~	~~....~~	~~....~~	~~....~~
~~Replacement systems~~	~~....~~	~~....~~	~~....~~
~~Type I~~	~~....~~	~~....~~	~~....~~
~~Type II~~	~~....~~	~~....~~	~~....~~
~~Type III~~	~~....~~	~~....~~	~~....~~
~~Type IV~~	~~....~~	~~....~~	~~....~~
~~Type V~~	~~....~~	~~....~~	~~....~~

~~*Other establishments should not also be counted in the appropriate flow category;~~

Total SSTS by flow permitted in year:

	1-2,499 gallons per day	2,500-4,999 gallons per day	5,000-10,000 gallons per day
New SSTS construction			
Replacement SSTS			

Total SSTS by type permitted in year:

	Residential	Other establishments
Type I		
Type II		

Type III

Type IV

Type V

D. ~~the percent of new and replacement systems field inspected;~~

~~E.~~ the total number of systems serving full-time residences and seasonal residences, the total number of cluster systems, and the total number of other establishments in the jurisdiction;

~~F.~~ E. the estimated percentage of existing SSTS in compliance within the local government's jurisdictional boundaries and how the estimate was developed;

~~G. the number of variances issued from the local SSTS ordinance by type;~~

~~H.~~ F. the number of septic system tanks installed by each licensed installation business or homeowner;

~~I.~~ G. the number of systems regulated under an operating permit ~~or enforceable maintenance provisions~~;

~~J.~~ H. for counties, the names of cities and townships that have local ordinances within the county; and

~~K.~~ I. a narrative description of problem areas in local SSTS administration.

7082.0050 GENERAL REQUIREMENTS FOR LOCAL ORDINANCES.

Subpart 1. **Adoption of local ordinances.**

A. The regulation of SSTS by local governments must be implemented through an ordinance based on the requirements of this chapter, except that counties ~~may~~ are allowed to choose between options described in subpart 3 or 4 and ~~may also~~ are allowed to adopt alternative local standards according to subpart 5. Cities and towns must adopt the regulatory option used by the county and must be as strict as the county ordinance. Cities and townships are authorized to adopt conventional programs as described in subpart 3 even if the county has adopted a performance program.

B. County ordinances that administer SSTS programs must be updated to the standards of chapters 7080 to 7083, as published in the *State Register*, volume 31, pages 1025 and 1088, and as subsequently adopted, within ~~12~~ 24 months of the effective date of those chapters. City and township ordinances must be updated no more than 12 months after adoption of the county ordinance in which the city or township is located and must comply with the standards of chapters 7080 to 7083, as published in the *State Register*, volume 31, pages 1025 and 1088, and as subsequently adopted, and must be as strict as the applicable county ordinance.

Subp. 2. **Review by agency.**

A. A copy of all local ordinances regulating SSTS and all future ordinances or amendments must be submitted to the commissioner ~~within~~ 30 days ~~after~~ prior to adoption, accompanied by a completed ordinance review checklist on a form provided by the commissioner.

B. Local ordinances and programs must be reviewed by the commissioner for compliance with this chapter and to ensure that, based on local circumstances in that jurisdiction, the ordinance adequately protects public health and the environment. The commissioner must complete the ordinance review within six months of receipt. A local unit of government is authorized to implement ordinances ~~may be implemented without prejudice~~ during the review process. The commissioner must supply comments on the ordinance to the local unit of government when the review is complete.

~~C. Local ordinances that do not meet the requirements of this chapter, chapters 7080 and 7081, as published in the *State Register*, volume 31, pages 1025 and 1064, and as subsequently adopted, and *Minnesota Statutes*, section 115.55, may be subject to administrative actions.~~

Subp. 3. **Conventional programs.** Each SSTS ordinance must have technical standards. Conventional programs are comprehensive programs that employ ISTS and MSTS technical standards and criteria as specified in chapters 7080 and 7081, as published in the *State Register*, volume 31, pages 1025 and 1064, and as subsequently adopted, and program administrative functions in parts 7082.0100, subparts 1, 2, 3, and 5, and 7082.0300 to 7082.0700.

Subp. 4. **Performance programs.** A county ~~may~~ is authorized to further choose to develop and implement a comprehensive, performance-based program using ISTS and MSTS designs tailored to adequately protect the public health and the environment based on local environmental sensitivity. Performance programs must meet the requirements of the conventional program plus include provisions necessary to implement part 7082.0100, subpart 4.

Subp. 5. **Requirements for alternative local standards.**

Counties ~~may~~ are authorized to adopt and enforce by ordinance alternative local standards for existing or new construction or replacement of SSTS as part of a conventional program. The alternative local standards must protect public health and the environment as stipulated in *Minnesota Statutes*, section 115.55, subdivision 7, paragraphs (a) and (b), and must comply with items A to F.

A. Alternative local standards must not apply to ~~SWF~~ systems in shoreland areas or wellhead protection areas or systems serving food, beverage, or lodging establishments.

C. Local SSTS ordinances with alternative local standards for existing systems must include a time period to upgrade, replace, or discontinue use of a noncomplying system. The draft local ordinance, including the alternative local standards, must be submitted to the commissioner for comment before adoption to demonstrate that, based on local circumstances in that jurisdiction, the alternative local standards adequately protect public health and the environment. Possible considerations for justification ~~for~~ of the alternative local standard for existing systems ~~may~~ include:

D. In accordance with *Minnesota Statutes*, section 115.55, subdivision 7, paragraph (b), counties ~~may~~ are authorized to adopt alternative local standards that are less restrictive than the agency's rules for new construction or replacement in areas of sustained and projected low population density where conditions render conformance to this chapter difficult or otherwise inappropriate~~. Counties seeking to adopt alternative local standards for new construction or replacement must submit the following information to the commissioner~~ after submitting documentation of the following information and conditions to the commissioner:

(3) a description of the hardship that would result from strict adherence to ~~this chapter~~ the agency's rules;

E. ~~All new systems installed under alternative local standards must have operating permits issued by the county that adopted the alternative local standards.~~

~~F.~~ If the draft county SSTS ordinance includes alternative local standards for new construction and replacement, the ordinance must be submitted to the local water planning advisory committee created under *Minnesota Statutes*, section 103B.321, subdivision 3, and then submitted with justification to the commissioner at least 30 days before adoption for review and comment demonstrating that the ordinance adequately protects public health and the environment.

7082.0100 REQUIREMENTS FOR LOCAL ORDINANCES.

Subpart 1. **Requirement.** All SSTS ordinances must contain the provisions in items A to D.

B. A provision requiring the upgrade, replacement, repair, or discontinued use of a system that represents an imminent threat to public health or safety as described in part 7080.1500, subpart 4, item A, as published in the *State Register*, volume 31, page 1031, and as subsequently adopted, within ten months after the owner receives a notice of noncompliance or within a shorter period if required by an applicable local ordinance.

D. Local ordinance requirements regulating vertical separation for systems built before April 1, 1996, in ~~nonSWF~~ systems that are not SWF as defined in part 7080.1100, subpart 84, as published in the *State Register*, volume 32, page 1352, must meet the requirements in part 7080.1500, subpart 4, item E, as published in the *State Register*, volume 31, page 1031, and as subsequently adopted.

Subp. 3. **Additional ordinance requirements for all programs.**

~~A.~~ Ordinances adopted by a local unit of government under part 7082.0050 must contain the provisions in ~~subitems (1) to (18)~~ items A to R.

~~(1)~~ A. A provision that requires all design, installation, alteration, repair, maintenance, operation, pumping, and inspection activities for SSTS to be completed by an appropriately licensed business, an appropriately certified qualified employee, or a person exempted under part 7083.0700, subpart 1, as published in the *State Register*, volume 31, page 1089, and as subsequently adopted. A local unit of government ~~may~~ is not authorized to require additional local licenses, local registrations, local certificates, or other similar professional credentials to perform SSTS work. ~~The ordinance may require other stateissued licenses or certificates of registration.~~

~~(2)~~ B. A provision that requires abandonment of SSTS, or part thereof, that will no longer be used, according to part 7080.2500, as published in the *State Register*, volume 31, page 1062, and as subsequently adopted.

~~(3)~~ C. Technical standards and criteria for new and existing SSTS that adequately protect the public health and environment, as determined by parts 7080.1500, 7080.2150, subpart 2, and 7081.0080, as published in the *State Register*, volume 31, pages 1031, 1051, and 1066, and as subsequently adopted. The ~~ordinance may~~ local unit of government is authorized to specifically adopt technical standards in parts 7080.1710 to 7080.2400 and 7081.0110 to 7081.0290, as published in the *State Register*, volume 31, pages 1040 to 1061 and 1067 to 1078, and as subsequently adopted.

~~(4)~~ D. Whether variances to local ordinance provisions are allowed and, if so, the specific variance procedures required to obtain a variance from local ordinance requirements.

~~(5)~~ E. Provisions for design review, permit issuance, construction inspection, and system ~~operation~~ management.

~~(6)~~ F. A provision that requires that all lots created after January 23, 1996, have a minimum of two soil treatment and dispersal areas that support systems as described in parts 7080.2200 to 7080.2230, as published in the *State Register*, volume 31, pages 1054 to 1057, and as subsequently adopted, or site conditions described in part 7081.0270, ~~subpart 4~~ subparts 3 to 7, as published in the *State Register*, volume 31, page 1077, and as subsequently adopted, as applicable.

~~(7)~~ G. A provision that specifies the conditions necessary to allow the use of holding tanks. The ordinance must specify holding tank operation and maintenance requirements. At a minimum, a monitoring and disposal contract signed by the owner and a licensed maintenance business is required unless the owner is a farmer exempt from licensing under *Minnesota Statutes*, section 115.56, subdivision 2, paragraph (b), clause (3). The homeowner is responsible for ensuring that the contract guarantees the removal of the tank contents before overflow or any discharge.

~~(8)~~ H. A provision that prohibits surface discharge of sewage from SSTS unless issued a national pollution discharge elimination system permit by the agency.

~~(9)~~ I. A provision specifying the allowable use and location of SSTS in floodplains in compliance with applicable state and local requirements.

~~(10)~~ J. A provision requiring that a management plan be developed, reviewed, and approved before issuance of a construction permit for all new or replacement ISTS as described in part 7080.1100, ~~subpart 52~~ subparts 51 and 66, as published in the *State Register*, volume 31, page 1028, and as subsequently adopted.

~~(11)~~ K. A provision requiring operating permits for all systems installed under parts 7080.2290, 7080.2350, and 7080.2400, and chapter 7081, as published in the *State Register*, volume 31, pages 1058, 1059, 1061, and 1064, and as subsequently adopted.

~~(12)~~ L. For systems not operated under a management plan, a provision requiring solids removal from septic tanks or determination of the need to remove solids from septic tanks no less than every three years. The ordinance must require removal of solids if the solids accumulation needs to be removed based on part 7080.2450, as published in the *State Register*, volume 31, page 1061, and as subsequently adopted.

~~(13)~~ M. A provision requiring that all owners of new or replacement Class V injection wells, as defined in *Code of Federal Regulations*, title 40, part 144, submit inventory information to the Environmental Protection Agency and the agency and that all Class V wells be identified as such in property transfer disclosures.

~~(14)~~ N. A provision outlining how conflicting inspections and other technical disputes between SSTS certified individuals will be resolved if they occur as described in part 7082.0700, subpart 5.

~~(15)~~ O. A provision specifying what level of local approval is needed for repair, rejuvenation, or remediation of SSTS, as defined in local ordinance.

~~(16)~~ P. A provision ~~allowing or disallowing the use of soil texture and structure in Table IX in~~ specifying the allowed methods to determine the loading rate from part 7080.2150, subpart 3, item ~~F~~ E, Tables IX or IXa, as published in the *State Register*, volume 31, page 1052, and volume 32, page 1375, and as subsequently adopted, for sizing of soil treatment and dispersal systems.

~~(17) A determination of whether, or where, additional nitrogen, phosphorus, or other contaminants compliance levels will apply.~~

~~(18)~~ Q. A provision that requires all sewage generated in the jurisdiction to be treated either in an agency-permitted facility or a system that meets the requirements of an ordinance adopted under this chapter.

~~B. Ordinances adopted by a local unit of government under part 7082.0040, subpart 2 or 3, may contain the provisions in subitems (1) to (5).~~

~~(1) A provision allowing or disallowing the use of the system types as described in parts 7080.2210 to 7080.2400, as published in the *State Register*, volume 31, pages 1054 to 1057, and as subsequently adopted.~~

~~(2) A provision on the use, prohibition, or restriction of warrantied technologies as established in *Minnesota Statutes*, section 115.55.~~

~~(3) A provision to regulate the disposal of septage according to federal requirements and appropriate state guidelines.~~

~~(4) Provisions that protect the secondary soil treatment and dispersal area for future SSTS use.~~

~~(5) In addition to the provision in item A, subitem (6), a provision to require enough land area to support the proposed improvements, plus the area needed for the two soil treatment areas. The ordinance may also contain a provision on the action needed in the event that the lot was created according to item A, subitem (6), but the lot's soil treatment and dispersal area was subsequently damaged or disturbed.~~

R. If the ordinance allows a reduced vertical separation distance as described in part 7080.1500, subpart 4, item D, as published in the *State Register*, volume 31, page 1031, and as subsequently adopted, it must not allow more than a 15 percent reduction in the vertical separation distance to account for settling of sand or soil, normal variation of measurements, and interpretations of the limiting layer conditions.

Subp. 4. **Ordinance requirements for performance programs.** Performance programs are broader in scope than conventional programs and go beyond the minimum technical requirements of this chapter. Performance programs must meet the requirements of subpart 3 and items A to J.

Subp. 5. **More restrictive.** Technical or administrative requirements in local ordinances ~~may~~ are allowed to be more restrictive than this chapter.

7082.0300 LOCAL PROGRAM ADMINISTRATION.

Subpart 1. **Variance from requirements of this chapter.**

A. A local unit of government ~~may~~ is authorized to request a variance from the commissioner from the standards in this chapter or request a variance to the public health or environmental protection standards in parts 7080.2150, subpart 2, and 7081.0080, subparts 2 to 5, as published in the *State Register*, volume 31, pages 1051 and 1066, and as subsequently adopted.

Subp. 2. **Prohibited variation.**

A. Local ordinances or locally issued variances ~~may~~ must not deviate from flow determinations under part 7081.0110, as published in the *State Register*, volume 31, page 1067, and as subsequently adopted, if the deviation reduces the average daily flow from more than

10,000 gallons to 10,000 gallons per day or less without approval of the commissioner.

C. Only the governing state agency or locally delegated authority ~~may~~ is authorized to issue variances to chapters 4715, 4720, 4725, 6105, and 6120.

Subp. 3. **Variation from local ordinance requirements.** Variances to standards and criteria not listed in subpart 2 ~~may~~ are allowed to be granted on a site-by-site basis by the local unit of government, if applicable local variance procedures are followed.

Subp. 4. **Record keeping requirements.** Local units of government must maintain records of certificates of compliance, notices of noncompliance, permit applications, issued permits, enforcement proceedings, variance requests, and other actions taken. Records must be available for review by the commissioner. Permit files must also include:

B. design reports for items identified in parts 7080.2430 and 7081.0270, subpart ~~10~~ 11, as published in the *State Register*, volume 31, pages 1061 and 1078, and as subsequently adopted;

D. management plans and results ~~for~~ from approved management plans; and

Subp. 5. **Enforcement of local ordinances.** Local units of government shall administer local programs and enforce local ordinances that regulate SSTS as adopted in compliance with this chapter. Local units of government ~~may~~ are authorized to also enforce local ordinances under *Minnesota Statutes*, section 115.071, subdivisions 3 and 4.

7082.0500 PERMIT PROGRAM FOR SSTS.

Subpart 1. **General requirements for permit program.**

C. Permits must be required for all new construction and replacement. A local unit of government is authorized to require permits ~~may be required~~ for all or certain types of SSTS repairs.

Subp. 3. **Permit approval requirements and procedures.** The permit program must include the requirements in items A to ~~C~~ D.

A. A qualified employee with jurisdiction or licensed inspection business who is authorized by the local unit of government must review the permit application and other exhibits to determine whether site evaluation procedures, observations, and conclusions are accurate and fulfill applicable requirements~~, which include~~ and whether the proposed system will meet applicable requirements. An infield verification of the ~~seasonally~~ periodically saturated soil or bedrock at the proposed soil treatment and dispersal sites ~~and any other exhibits, and whether the proposed system will meet applicable requirements~~ must be conducted by a qualified employee with jurisdiction or licensed inspection business who is authorized by the local unit of government. An ~~MSTS~~ advanced inspector is required to perform the duties listed in this item for Type IV and Type V ISTS as described in parts 7080.2350 and 7080.2400, as published in the *State Register*, volume 31, pages 1059 to 1061, and as subsequently adopted, ISTS design flow of greater than 2,500 gallons per day, and MSTS. The infield verification of the ~~seasonally~~ periodically saturated soil or bedrock ~~may~~ must occur ~~at any point~~ prior to issuance of the certificate of compliance.

C. Local units of government shall not issue a building permit or variance for a bedroom addition on property served by a system unless the SSTS is in compliance with applicable requirements, as evidenced by a certificate of compliance. A local unit of government ~~may~~ is authorized to temporarily waive the certificate of compliance requirement in this item for a bedroom addition permit for which application is made during the period from November 1 to April 30, provided a compliance inspection of the system is performed by the following June 1 and the applicant submits a certificate of compliance by the following September 30. This item does not apply if the local unit of government does not have an ordinance requiring a permit to add a bedroom.

D. A licensed inspection business working on behalf of a local unit of government must not design or install systems that the business will be responsible for permitting or inspecting as part of its local government duties.

7082.0600 SYSTEM MANAGEMENT.

Subpart 1. **Management plans.**

A. Local units of government shall require management plans for all new or replacement SSTS as described in parts 7080.2210 to 7080.2300, as published in the *State Register*, volume 31, pages 1054 to 1059, and as subsequently adopted. These plans must be submitted ~~and approved~~ to the local government before issuance of a construction permit. ~~The approved management plan must be reviewed and signed by the owner before issuance of the construction permit.~~

~~C. Management plans may be modified as necessary and reapproved by the local unit of government.~~

Subp. 2. **SSTS operating permits.**

A. Local units of government must issue and enforce an operating permit for SSTS specified in parts 7080.2290, 7080.2350, and 7080.2400, and chapter 7081, as published in the *State Register*, volume 31, pages 1058, 1059, and 1061, and as subsequently adopted, and any other system deemed to require operational oversight as determined by the local unit of government. ~~If the local unit of government does not have the resources or desire to provide adequate oversight of systems requiring an operating permit, those systems or technologies must not be installed in that jurisdiction. Operating permits may be modified as necessary and reapproved by the local unit of government.~~

7082.0700 INSPECTION PROGRAM FOR SUBSURFACE SEWAGE TREATMENT SYSTEMS.

Subp. 2. **Compliance inspection.**

B. A licensed inspection business that inspects an existing SSTS ~~may~~ is allowed to subsequently design and install a new SSTS for that property, provided the inspection business is also licensed to design and install. A licensed inspection business working on behalf of a local unit of government must not design or install a system if there is a likelihood that the inspector or business will be responsible for permitting or inspecting the system or system site. A person working for or on behalf of a local unit of government ~~may~~ is not allowed to use the person's position to solicit for private business gain.

~~C. The construction inspection requirement may be satisfied by a review by the designated local official of video, electronic, photographic, or other evidence to show compliance as provided by the installation business.~~

Subp. 3. **Certificate of compliance; notice of noncompliance; new construction or replacement.**

B. The initial certificate of compliance ~~may~~ must be issued if reasonable assurance is evident that the system was built according to applicable requirements as specified in the construction permit.

C. Local units of government shall develop a certificate of compliance document or use a certificate of compliance developed by the agency. The certificate of compliance must include the vertical separation distance report described in subpart 4, item B, subitem (2), and the management plan developed under part 7082.0600, subpart 1. All certificates of compliance and notices of noncompliance must include property and property owner identification, date of inspection, system components, system location (dimensioned or drawn to scale), well setback distance, field check of soil conditions, SWF, as defined under part 7080.1100, subpart 84, as published in the *State Register*, volume 32, page 1352, and as subsequently adopted, designations as applicable, and Class V designation as applicable.

Subp. 4. **Certificate of compliance; notice of noncompliance; existing systems.**

A. The agency's existing SSTS inspection report forms shall be used for existing system compliance inspections. A local unit of government is authorized to require the use of additional, local existing system inspection forms ~~may also be required~~.

B. An inspection for existing SSTS must verify the conditions in subitems (1) to ~~(5)~~ (3).

(1) Sewage tanks must be assessed for leakage below the operating depth. A ~~watertightness~~ leakage report must be completed that includes the method or methods used to make the assessment. The assessment ~~may~~ must be made by ~~any~~ either a licensed SSTS business, except a design business, or ~~made by~~ a qualified employee with an SSTS certification, except as a designer. A passing report is valid for three years unless the certified individual has reason to believe that a new inspection is to be conducted and the tank is found not to be watertight.

(2) The vertical separation distance from the bottom of the soil treatment and dispersal system and the ~~seasonally~~ periodically saturated soil or bedrock must be verified. This verification must be achieved by either conducting soil borings or by prior verifications by two independent parties. The ~~system designer's~~ soil borings used for system design or previous inspections qualify as ~~one~~ a verification. A vertical separation distance report must be completed that includes the method or methods used to make the assessment and includes any previous soil borings. The assessment ~~may~~ must be made by either a licensed inspection business or a qualified employee inspector with jurisdiction. If the verification separation report consists of verifications by two independent parties, a subsequent verification is not required unless the inspector has reason to believe a noncompliant condition exists. ~~The allowable verifications for the vertical separation report may be past soil borings used for design purposes or past soil borings from previous compliance inspections, if the verification was conducted by a party independent of the party conducting the previous inspection. In these cases, the past soil borings must be attached to the vertical separation report.~~

(3) Sewage backup, surface seeping, or surface discharge from the system must be determined. A hydraulic function report must be completed that includes the method or methods used to make the assessment. The assessment ~~may~~ must be made by either a licensed inspection business or a qualified employee with an inspector certification. A passing report is valid until a new inspection is requested or if the hydraulic performance is believed to have changed.

~~(4) Compliance with the system operational and maintenance requirements must be determined. An operation and maintenance report must be completed that includes the method or methods used to make the assessment. The assessment must be made by a licensed inspection business or a qualified employee inspector.~~

~~(5) The verification of proper management of a system must be conducted by a licensed operation business or qualified employee operator if the system requires an operator. A passing report is valid until a new inspection is requested and becomes invalid if future required monitoring does not take place or monitoring results indicate noncompliance. If required maintenance is not up to date at the time of inspection, the maintenance activities must be performed at the time of the inspection and an assessment made by the inspector or operator as to whether the system can again be in compliance, provided required maintenance is performed in the future.~~

C. A certificate of compliance shall be based on the results of the verifications in item B. The certificate of compliance ~~or notice of noncompliance~~ must be signed by a licensed inspection business or a qualified employee certified as an inspector. The certificate or notice must be submitted to the local unit of government with jurisdiction and the property owner or owner's agent no later than 15 days after a compliance inspection. The completed form must also be submitted to the owner or owner's agent. The certificate of compliance is valid for three years from the date of issuance, even if one of the supporting reports expires before the three-year period, unless an inspector

finds evidence of noncompliance.

D. If a compliance inspection indicates that the system is noncompliant, the notice must be signed by a licensed inspection business or qualified employee certified as an inspector and contain a statement to that effect and specify what must be done to achieve compliance.

Subp. 5. **~~Seasonally~~ Periodically saturated soil disagreements.**

A. If a documented discrepancy arises on the depth of the ~~seasonally~~ periodically saturated soil between licensed businesses for SSTS design or compliance purposes, all disputing parties must follow the procedure outlined in this subpart.

B. If a documented discrepancy arises on the depth of the ~~seasonally~~ periodically saturated soil between an SSTS licensed business and a local unit of government for SSTS design or compliance purposes, all disputing parties shall follow the procedure outlined in this item.

(2) If the provision in subitem (1) does not resolve differences, then one or more of the methods in item A, subitem (3), unit (b) or (c), ~~may~~ are allowed to be employed.

Pollution Control Agency

Adopted Permanent Rules Relating to Subsurface Sewage Treatment Systems

The rules proposed and published at *State Register*, Volume 31, Number 33, pages 1023-1101, February 12, 2007 (31 SR 1023), are adopted with the following modifications:

CHAPTER 7083
SUBSURFACE SEWAGE TREATMENT SYSTEMS LICENSING AND CERTIFICATION PROGRAM, PRODUCT REGISTRATION PROGRAM, AND ADVISORY COMMITTEE

7083.0010 PURPOSE AND INTENT.

The proper location, design, installation, use, and maintenance of a subsurface sewage treatment system (SSTS) protects the public health, safety, and general welfare by the discharge of adequately treated sewage to the groundwater. In order to reasonably accomplish the proper location, design, installation, operation, and maintenance of an SSTS, the Pollution Control Agency provides in this chapter criteria for certifying trained individuals and licensing SSTS businesses, registering SSTS products, and provisions for an advisory committee to the agency concerning SSTS issues.

The authority for this chapter is granted in *Minnesota Statutes*, chapters 103F, 103G, 115, and 116.

This chapter does not address the licensing of wastewater treatment plant operators regulated under chapter 9400 or Type IV land application of waste professionals as regulated in chapter 7048.

It is the intent of this chapter to provide standards for adequate training, experience, continuing education, insurance, and bonding for SSTS businesses and certified individuals. These standards also present the foundation for enforceable violations along with the agency's enforcement procedures. ~~The agency's enforcement program may require assistance from local units of government to file complaints and gather evidence against those in violation of local SSTS ordinances.~~ It is the intent of this chapter to register SSTS products for use in Minnesota, as technology and products employed in SSTS shall adequately protect the public health and the environment as determined by this chapter and be approved for use by the local unit of government.

It is the further intent of this chapter to determine the duties, structure, and administration of the SSTS Advisory Committee as established in *Minnesota Statutes*, section 115.55.

7083.0020 DEFINITIONS.

Subp. 5. **ASTM.** "ASTM" means the American Society for Testing and Materials.

Subp. ~~5.~~ 6. **Certified.** "Certified" means an individual is included on the agency's SSTS certification list and is qualified to design, install, maintain, repair, pump, operate, or inspect an SSTS as appropriate with the individual's qualifications. A certified individual who is working under a license is subject to the obligations of the license. Certified individuals were previously known as registered professionals.

Subp. 7. **Disinfection.** "Disinfection" means the process of destroying or inactivating pathogenic microorganisms in sewage to render them noninfectious.

Subp. 8. **Drip dispersal system.** "Drip dispersal system" means a small diameter pressurized wastewater distribution system in which the treated effluent is distributed under pressure to the infiltrative surface via drip tubing and enters the receiving environment.

Subp. ~~6.~~ 9. **ISTS.** "ISTS" means an individual sewage treatment system as defined under part 7080.1100, subpart ~~47~~ 41, as published in the State Register, volume 31, page 1027, and as subsequently adopted.

Subp. ~~7.~~ 10. **Licensee.** "Licensee" means a person to whom a license is issued under this chapter.

Subp. ~~8.~~ 11. **Mentor.** "Mentor" is a person who holds a mentor designation as described in part 7083.2000 and provides mentorship.

Subp. ~~9.~~ 12. **Mentorship.** "Mentorship" means ~~the provision of~~ providing direct and personal supervision to an individual who is

seeking to gain qualifying work experience to become a certified individual.

Subp. ~~10.~~ 13. **MSTS.** "MSTS" means a midsized SSTS as defined in part 7081.0020, subpart ~~5~~ 4, as published in the *State Register*, volume 31, page 1065, and as subsequently adopted.

Subp. 14. **O&G.** "O&G" means oil and grease, a component of sewage typically originating from foodstuffs such as animal fats or vegetable oils or consisting of compounds of alcohol or glycerol with fatty acids such as soaps and lotions, typically expressed in mg/L (also known as FOG or fats, oil, and grease).

Subp. 15. **Proprietary product.** "Proprietary product" means a sewage treatment or distribution technology, method, or material subject to a patent or trademark.

Subp. 16. **Public domain technology.** "Public domain technology" means a sewage treatment or distribution technology, method, or material not subject to a patent or trademark.

Subp. ~~11.~~ 17. **Qualified employee.** "Qualified employee" means a state or local government employee who designs, installs, maintains, pumps, or inspects SSTS as part of the person's employment duties.

Subp. ~~12.~~ 18. **Subsurface sewage treatment system or "SSTS."** "Subsurface sewage treatment system" or "SSTS" means an individual sewage treatment system as defined in part 7080.1100, subpart ~~47~~ 41, as published in the *State Register*, volume 31, page 1027, and as subsequently adopted, or a midsized sewage treatment system as defined in part 7081.0020, subpart ~~5~~ 4, as published in the *State Register*, volume 31, page 1027, and as subsequently adopted, as applicable.

Subp. ~~13.~~ 19. **Subsurface sewage treatment system business or SSTS business.** "Subsurface sewage treatment system business" or "SSTS business" means a business that designs, installs, maintains, repairs, pumps, operates, or inspects an SSTS as appropriate with the organization's license and qualifications.

Subp. 20. **TN.** "TN" means total nitrogen, which is the measure of the complete nitrogen content in wastewater including nitrate (NO_3), nitrite (NO_2), ammonia (NH_3), ammonium (NH_4^+), and organic nitrogen, expressed as mg/L.

Subp. 21. **Total suspended solids or TSS.** "Total suspended solids" or "TSS" means solids that are in suspension in water and that are removable by laboratory filtering, expressed as mg/L.

Subp. 22. **TP.** "TP" means total phosphorus, which is the sum of all forms of phosphorus in effluent, expressed as mg/L.

7083.0040 ADMINISTRATION BY AGENCY.

Subp. 2. **Variance procedures.**

A. In certain cases, the commissioner may grant a variance ~~to SSTS businesses, certified individuals, or apprentices~~ from the standards in this chapter. This variance provision is not intended to provide relief for licensed businesses or certified individuals from missed expiration dates or enforcement actions.

C. In addition to the variance information required in item B, the commissioner ~~may~~ has the authority to also require the requesting party to submit other relevant information ~~as necessary to~~ for the specific purpose of properly ~~evaluate~~ evaluating the variance request.

7083.0700 LICENSES.

~~Subpart 1. **State license required.**~~ A state SSTS license applicable to the type of work being performed is required for any business that conducts work to design, install, repair, maintain, operate, or inspect all or part of an SSTS. A license is also required to land spread septage and operate a sewage collection system discharging to an SSTS. Property owners that employ a business to perform this work shall hire a business that is licensed according to this chapter. Individuals exempt from a state SSTS license must follow all applicable local, state, and federal requirements. A license is not required for:

C. an individual who performs supervised labor or services as an employee of a licensed SSTS business;

G. an individual who maintains a toilet waste treatment device for a dwelling that is owned by the individual and functions solely as a dwelling or seasonal dwelling for that individual; ~~or~~

H. an individual who performs tasks identified in the system's management plan that do not require a maintainer or service provider license for a dwelling that is owned by the individual and functions solely as a dwelling or seasonal dwelling for that individual~~.~~; or

I. the owner or designee of a campground or other similar facility who removes and transports sewage wastes from recreational vehicles into a holding or treatment system located on the same property as the facility.

~~Subp. 2. **Land application.** Land application of stored septage must be conducted by a Type IV operator certified under chapter 7048.~~

7083.0710 CATEGORIES, AUTHORIZATIONS, AND RESPONSIBILITIES.

Except as described in part 7083.0700, ~~subpart 1,~~ an individual or business must not perform the services described in this chapter and chapters 7080 to 7082, as published in the *State Register*, volume 31, pages 1025 to 1088, and as subsequently adopted, unless licensed by the commissioner under the appropriate license category in parts 7083.0720 to 7083.0800.

7083.0730 REQUIREMENTS FOR CERTIFIED INDIVIDUALS.

A certified individual must:

A. provide ~~direction~~ direct and personal supervision to noncertified employees working on an SSTS;

7083.0740 DESIGN LICENSE.

Subpart 1. **Authorization.**

A. A ~~basic~~ licensed basic design business ~~may~~ is authorized to conduct site and soil evaluations, design systems, and write management plans for a Type I, II, or III ISTS as described under part 7080.2200 to 7080.2300, as published in the *State Register*, volume 31, pages 1054 to 1057, and as subsequently adopted, serving dwellings or other establishments with ~~an average daily~~ a design flow of 2,500 gallons per day or less.

B. ~~An advanced~~ A licensed advanced design business ~~may~~ is authorized to conduct site and soil evaluations, design systems, and write management plans for ~~Type I to Type V systems as described in parts 7080.2200 to 7080.2400, as published in the *State Register*, volume 31, pages 1054 to 1061, and as subsequently adopted, serving dwellings or other establishments with an average daily flow of 2,500 gallons per day or less~~ all sizes and types of SSTS.

~~C. An MSTS licensed design business may conduct site and soil evaluations, design systems, and write management plans for systems described in items A and B and an MSTS.~~

Subp. 2. **Responsibilities.** All design licensees must:

A. inform the proposed system owner of~~:~~

~~(1)~~ the type classification of the system under parts 7080.2200 to 7080.2400, as published in the *State Register*, volume 31, pages 1054 to 1061, and as subsequently adopted; ~~and~~

~~(2) the estimated costs for construction, operation, monitoring, service, component replacement, and management and the anticipated system life; and~~

B. provide written reasonable assurance of system performance to the local unit of government including, but not limited to:

(1) adherence to system type requirements; or

(2) technical basis for design elements for Type II to Type V systems~~.~~; and

C. prepare detailed design sheets, drawings, calculations, materials, system layout, and elevations.

Subp. 3. **Certified designers.** Certified designers must ~~review~~ conduct the soil descriptions and review other site evaluations and designs by noncertified employees. This review includes both verification of field observations and conclusions and design assumptions and calculations.

7083.0750 INSPECTION LICENSE.

Subpart 1. **Authorization.**

A. A licensed basic inspection business ~~may~~ is authorized to conduct compliance inspections and issue written certificates of compliance and notices of noncompliance for an existing ISTS described in part 7083.0740, subpart 1, ~~items~~ item A ~~and B~~. An inspection business ~~may~~ is allowed to install a new system for a property in which the business has conducted an existing ISTS compliance inspection, provided the business holds the appropriate licenses. A local unit of government is allowed to authorize a licensed inspection business ~~may be authorized~~ to review and approve site evaluations and designs, inspect new construction and replacement systems, ~~review~~ verify the submittal of management plans, and issue written certificates of compliance and notices of noncompliance for systems described in part 7083.0740, subpart 1, items A and B~~, on behalf of a local unit of government~~.

B. A licensed ~~MSTS~~ advanced inspection business ~~may~~ is authorized to conduct compliance inspections and issue written certificates of compliance and notices of noncompliance for ~~an~~ existing ~~MSTS~~ systems described in part 7083.0740, subpart 1, item ~~C~~ B. An inspection business ~~may~~ is authorized to install a new system for a property in which the business has conducted an existing system compliance inspection, provided the business holds the appropriate licenses. A local unit of government is allowed to authorize a licensed ~~MSTS~~ advanced inspection business ~~may be authorized~~ to review and approve site evaluations and designs, inspect new construction and replacement systems, ~~review~~ verify the submittal of management plans, and issue written certificates of compliance and notices of noncompliance for systems described in part 7083.0740, subpart 1, item ~~C, on behalf of a local unit of government~~ B.

Subp. 2. **Responsibilities.** Inspection and MSTS inspection licensees must submit a completed version of the agency's existing inspection form to the local unit of government and the property owner within 30 days after any existing system compliance inspection.

7083.0760 INSTALLATION LICENSE.

Subpart 1. **Authorization.** A licensed installation business ~~may~~ is authorized to construct, install, alter, extend, maintain, or repair all SSTS according to an approved design. Subp. 2. **Responsibilities.** Installation licensees must:

G. ~~institute no change from the signed and approved design report until the proposed change is made by the designer and approved by the local unit of government~~ follow recommended standards and guidance documents for registered products and check the quality of materials used;

H. negotiate with the system owner ~~to~~ and jointly determine who will be responsible for seeding, erosion and frost protection, watering, and other vegetation establishment activities; and

7083.0770 MAINTENANCE LICENSE.

Subpart 1. **Authorization.** A licensed maintenance business ~~may~~ is authorized to measure scum and sludge depths in sewage tanks for the accumulation of solids and removing these deposits; remove solids and liquids from toilet waste treatment devices; transport septage; land apply septage or dispose of septage in a treatment facility; identify problems related to sewage tanks, baffles, maintenance hole covers, extensions, and pumps and make the repairs; evaluate sewage tanks, ~~dosing chambers~~ pump tanks, distribution devices, valve boxes, or drop boxes for leakage; identify cesspools, seepage pits, leaching pits, and drywells; and clean supply pipes and distribution pipes for all SSTS.

Subp. 2. **Responsibilities.** Maintenance licensees must:

A. record pump-out date, gallons removed, any tank leakage below or above the operating depth, the access point used to remove the septage, the method of disposal, the reason for pumping, any safety concerns with the maintenance hole cover, and any troubleshooting or repairs conducted. This information must be submitted to the homeowner within 30 days after the maintenance work is performed. Maintenance business pumping record information must be maintained by the business for a period of five years;

B. observe and provide written reports of any noncompliance to the system owner within 30 days; and

C. ~~report new service contracts entered into or cancellation of current service contracts to the local unit of government within 30 days after the maintenance work is performed; and~~

~~D.~~ obtain a signed statement if the owner refuses to allow the removal of solids and liquids through the maintenance hole.

Subp. 3. **Certified maintainers.** Certified maintainers must provide proper training, daily review of work, and periodic observation of work conducted by noncertified individuals. Certified maintainers are responsible for conducting or supervising:

B. the making of sensory observations if nondomestic wastes ~~may~~ have been discharged into the system;

7083.0780 SERVICE PROVIDER LICENSE.

Subpart 1. **Authorization.** A licensed service provider business ~~may~~ is authorized to measure scum and sludge depths for the accumulation of solids; identify problems related to sewage tanks, baffles, effluent screens, maintenance hole covers, extensions, and pumps and make the repairs; evaluate sewage tanks, dosing chambers, distribution devices, valve boxes, or drop boxes for leakage; and clean supply pipes and distribution pipes. Service provider businesses ~~may~~ are also authorized to assess, adjust, and service systems for proper operation; take, preserve, store, and ship samples for analysis; interpret sampling results and report results for an SSTS; and operate sewage collections systems discharging to an SSTS.

Subp. 2. **Responsibilities.** Service provider licensees must:

A. report sampling results, operational observations, system adjustments, and other management activities in compliance with local ordinances, management plans, or operating permit requirements; and

B. observe and provide written reports of any noncompliance to the system owner and the local unit of government within 30 days~~; and~~.

~~C. report new service contracts entered into or cancellation of current service contracts to the local unit of government within 30 days.~~

7083.0800 RESTRICTED LICENSES.

The commissioner ~~may~~ is allowed to add restrictions to a license for the following reasons:

7083.0900 APPLICATION FOR LICENSE; FEES; RENEWAL.

Subp. 2. **Requirements for obtaining or renewing licenses.** A business that meets the eligibility requirements under subpart 1 ~~may~~ must apply for or renew a license on forms provided by the commissioner. The application must be submitted to the agency no later than 60 days prior to the expiration or renewal date. Issuance of a new license also requires a 60-day review and approval period.

Subp. 5. **Term.** A license is valid for one year after the date of issuance. An applicant is allowed to request a license ~~renewals may be requested~~ renewal for longer periods up to three years. The fee is determined by multiplying the approved number of years by the fee in subpart 3.

Subp. 6. **Denial.** The commissioner shall deny an application for issuance or renewal of a license if the applicant is not eligible under subpart 1. The commissioner is authorized to deny a license application ~~may also be denied~~ as the result of an enforcement action under part 7083.2020. A ~~pending~~ denial based on part 7083.2020 ~~may~~ must not be issued before an opportunity is provided for a contested case hearing complying with *Minnesota Statutes*, chapter 14.

7083.1000 BONDING AND INSURANCE FOR SSTS LICENSED BUSINESSES; LIABILITY.

Subpart 1. **Bond and insurance requirements.**

C. To be eligible for SSTS licensing, a business must hold a corporate surety bond in the amounts specified in Table I or greater. If a business seeks more than one license, then the license category with the highest bonding amount fulfills the bond requirement for all licenses sought. ~~A licensed SSTS business must disclose the amount of bond coverage to those to whom they are providing services.~~

Table I

License	Minimum Bond Amounts
Basic design	$10,000
Advanced design	~~$15,000~~ $25,000
~~MSTS design~~	~~$25,000~~
Inspection	$10,000
~~MSTS~~ Advanced inspection	$25,000
Installation	$10,000
Maintenance	$10,000
Service provider	$10,000

Subp. 2. **Bond use.**

B. A person suffering a loss from the principal failing to act according to item A ~~may~~ is allowed to petition the corporate surety to seek and ~~may~~ be granted a partial or full payment of the bond.

7083.1010 QUALIFIED EMPLOYEE REQUIREMENTS.

A qualified employee must fulfill the applicable responsibilities under parts 7083.0710 to 7083.0800 that are applicable to the work being performed. Qualified employees must be certified with specialty area certifications applicable to the work being conducted. An apprentice is eligible to be a qualified employee ~~may be an apprentice~~ if the individual has specialty area certifications applicable to the work to be completed, has fulfilled the requirement under part 7083.1050, subpart 2, and has been issued performance restrictions.

7083.1020 SSTS INDIVIDUAL CERTIFICATION AND TRAINING PROGRAM.

Subpart 1. **Purpose.** Parts 7083.1020 to 7083.1090 establish the SSTS individual certification and training program. This program establishes training, experience, and examination requirements for SSTS individual certification. An individual ~~may~~ is allowed to be certified in the following specialty areas:

C. ~~MSTS designer;~~

~~D.~~ inspector;

~~E.~~ D. ~~MSTS~~ advanced inspector;

~~F.~~ E. installer;

~~G.~~ F. maintainer; and

~~H.~~ G. service provider.

Subp. 3. **Application.** An individual who qualifies under subpart 2, items A to C, for a specialty area ~~may~~ is allowed to apply to be certified by the commissioner according to part 7083.1080. Individuals who complete subpart 2, items A and B, for a specialty area ~~may~~ are allowed to apply to receive an apprentice designation according to part 7083.1090.

7083.1030 TRAINING.

Subpart 1. **Required training.** To fulfill the training requirement for one or more specialty areas under the certification and training program, an individual must successfully complete formal coursework that covers basic SSTS knowledge and specialty area training as described in items A and B.

B. SSTS specialty area certifications must have formal training to perform the required responsibilities for each specialty area in parts 7083.0710 to 7083.0800. Advanced ~~and MSTS~~ designers must receive training in a specific technology before designing and writing a management plan for that technology.

7083.1040 EXAMINATION.

Subpart 1. **Examinations.** An examination for basic information regarding an SSTS and each of the specialty areas under part 7083.1020, subpart 1, must be offered by the commissioner at least annually. The examinations must be based on the skill, knowledge, experience, and education that a person must have to perform the authorized duties and responsibilities under parts 7083.0710 to 7083.0800 for each specialty area sought. An individual must successfully complete the basic and specialty area examinations with a passing score of 70 percent or greater to qualify for certification and apprentice designation. The commissioner ~~may~~ shall require a passing

score of 70 percent or greater on any portion or subpart of an examination, which focuses on a critical skill component, in order to pass the entire examination.

Subp. 3. **Failure on examination.** An individual who fails an examination is ineligible to retake the same examination for six months unless the individual has completed additional training approved by the agency in the subject matter covered by the failed examination in addition to that required under part 7083.1030, subpart 1. Official documentation of this additional training must be provided at the time the examination is retaken.Training hours used to fulfill this reexamination requirement ~~may~~ must not be used to fulfill continuing education requirements. Failure to pass the examination in a specialty area or the basic examination does not prevent the person from taking an examination for a different specialty area certification.

7083.1050 EXPERIENCE.

Subp. 2. **Options to gain experience.** The experience needed to qualify for a specialty area ~~may~~ must be acquired by one of the methods in items A to ~~D.~~ C or other method approved by the commissioner:

A. ~~Experience may be completed~~ as an employee or worker of a licensed SSTS business under an experience plan as described in subpart 3~~.~~;

B. ~~Experience may be gained~~ as an apprentice under a restricted license. Qualifying experience under a restricted license must be completed under an experience plan as described in subpart 3~~.~~; or

C. ~~Experience may be gained~~ through field work experience from an agency-accredited training program that provides realistic in-field work situations.

~~D. Experience may be gained through a method approved by the commissioner.~~

Subp. 3. **Experience plan.** Experience plans must meet the requirements in this subpart.

B. Experience plans must be submitted to and approved by the commissioner before apprentice designation is granted. The commissioner ~~may~~ shall require that the plan be discontinued or modified to correct the problems if the objectives for acquiring experience are not being fulfilled. The commissioner shall make a final evaluation to determine if the experience gained under the plan successfully fulfilled the experience requirement.

C. Experience plans must include the number of systems to be worked on to obtain experience and the applicable specialty area requirements in subitems (1) to (4).

(1) Experience plans for apprentice designer must verify the completeness and accuracy of the preliminary and field evaluation work products. This includes the in-field verification of the soil borings and the interpretation of the height of the ~~seasonally~~ periodically high saturated soil level and bedrock. All design assumptions and calculations must be verified.

Subp. 5. **Amount of experience.**

A. An applicant for certification as a basic designer must have co-completed with a mentor a minimum of 15 ISTS site and soil evaluations, designs, and management plans for a Type I, II, or III system, as defined under parts 7080.2200 and 7080.2300, as published in the *State Register*, volume 31, pages 1054 to 1057, and as subsequently adopted, with a flow of 2,500 gallons per day or less, with a minimum of one aboveground system design, and a minimum of one belowground system design. An applicant must observe five installations and five service or operational instances, with mentorship not required. No additional experience is required to qualify for the advanced ~~or MSTS~~ designer certification.

C. An applicant for certification as ~~an~~ a basic inspector must have co-completed with a mentor a minimum of 15 inspections of Type I ~~to V~~, II, or III systems, as defined under parts 7080.2200 and 7080.2300, as published in the *State Register*, volume 31, pages 1054 and 1059, and as subsequently adopted, with a flow of 2,500 gallons per day or less. ~~No additional experience is required to qualify for an MSTS certification.~~

7083.1060 CONTINUING EDUCATION.

Subpart 1. **Renewal requirements.**

B. An individual with a maintainer certification must complete ~~nine~~ 12 hours of continuing education related in general to SSTS or ~~six~~ nine hours of continuing education specifically related to SSTS maintenance or land application of septage every three years. A maintainer whose gross annual revenue from pumping systems is $9,000 or less and whose gross revenue from pumping systems during the year ending May 11, 1994, was at least $1,000 is not subject to the continuing education requirements.

C. Certified individuals and apprentices must complete the applicable hours of continuing education under items A and B that meet the criteria under subpart 2 for each time period specified in those items. The continuing education requirement is not increased for multiple specialty area certifications. Continuing education hours earned in excess of those required under this subpart ~~may~~ shall not be carried over to meet the requirements for future renewal periods. The renewal period begins when the first examination is taken in which a passing score is received under part 7083.1040.

D. The continuing education must be taken during the time specified in this subpart and remains valid even though not reported before the end of the certification period. However, certification is considered expired until the training is reported. If adequate continuing

education training is not taken during the certification period, recertification must be gained by taking the necessary continuing education hours and retaking the examinations.

Subp. 2. **Criteria for continuing education.** Coursework that qualifies for continuing education credit is coursework related to the technical aspects of sewage, sewage treatment, SSTS, soil identification, soil interpretation, soil water movement, engineering or environmental health related to SSTS, maintenance or operation of an SSTS, land application of wastes, or other related topics. Credit must also be given for coursework relating to state SSTS rules and statutes and coursework related to the administration of local ordinances, permitting, and inspection. Only programs accredited or otherwise authorized by the commissioner for continuing education credit ~~may~~ are allowed to be used to maintain a certification or apprentice designation.

7083.1070 ACCREDITATION OF TRAINING PROGRAMS AND AUTHORIZATION OF TRAINING FOR CONTINUING EDUCATION CREDITS.

Subp. 2. **Procedures for approval.** The commissioner shall approve a training course if the information submitted under subpart 1 demonstrates that the course meets the objectives for a specific specialty area under part 7083.1030 or for continuing education under part 7083.1060. The commissioner shall evaluate the submitted information to determine how many continuing education credits will be awarded. ~~The accreditation may be reevaluated by the commissioner at any time.~~ The commissioner ~~may~~ shall require that the training program be updated to ensure recent industry developments are included. The commissioner shall cancel accreditation ~~may be canceled by the commissioner~~ if the program sponsor does not respond to the commissioner's written request for program information or training course revisions or if the commissioner determines that the program has not met its training objective.

Subp. 3. **Authorization of training for continuing education credits.** Nonaccredited training ~~may qualify~~ qualifies for continuing education credits only if authorized by the commissioner. The person requesting the credits must provide the information requirements of subpart 1 for any nonaccredited training attended and document in written format how the course will meet or has met the requirements under part 7083.1030 or 7083.1060, including proof of successful completion of the training. The commissioner ~~may~~ is authorized to prorate the credit hours granted based on the amount of the training that pertains to the SSTS specialty area for which it is requested.

7083.1090 APPRENTICE.

Subpart 1. **Qualifications.**

B. An apprentice ~~may~~ is allowed to perform the duties of a certified individual according to parts 7083.0730 to 7083.0780 under a restricted license or as a restricted qualified employee if the experience requirements of part 7083.1050 are met.

7083.2000 MENTOR DESIGNATION.

Subp. 2. **Commissioner designation.** A candidate found to meet the qualifications as a mentor under this part must be designated by the commissioner as a mentor. The commissioner ~~may~~ shall revoke mentorship designation upon finding a violation that results in an administrative penalty order, stipulation agreement, or schedule of compliance; incompetence; negligence; fraud; illegal activity; or inappropriate conduct in the performance of the duties authorized under the mentorship designation.

7083.2010 ADMINISTRATION OF CERTIFICATION AND APPRENTICE PROGRAM.

Subpart 1. **Application; issuance.** An individual meeting the qualifications in part 7083.1080, subpart 1, or 7083.1090, subpart 1, is eligible to apply for certification or apprentice designation on a form provided by the commissioner. The commissioner requires 60 days for review of the application. A complete application consists of documentation of training and experience or the experience gaining method meeting the requirements under part 7083.1050, subpart 2. A certification or apprentice applicant ~~may~~ is not allowed to fulfill the duties and responsibilities of a certified or apprentice individual until designated as such in writing by the commissioner.

Subp. 5. **Denial of application.** If the commissioner ~~may deny an application or renewal application for a certification or apprentice based on~~ finds evidence of actions listed under part 7083.2020, the commissioner is allowed to deny an application or renewal application for a certification or apprentice. Notice of the pending denial must be served on the applicant by mail. Any pending denial based on part 7083.2020 shall not be issued before an opportunity is provided for a contested case hearing complying with *Minnesota Statutes*, chapter 14.

Subp. 6. **Restrictions; conditions.** The commissioner ~~may~~ is allowed to add performance restrictions and training conditions to an individual certification or apprentice designation at any time to address unusual work situations or experience requirements, to take enforcement action under part 7083.2020, or to limit the scope of responsibilities under parts 7083.0710 to 7083.0800, for an individual. Notice of the pending restriction must be served on the applicant by mail. Any pending restriction shall not be issued before an opportunity is provided for a contested case hearing complying with *Minnesota Statutes*, chapter 14.

7083.2020 ENFORCEMENT ACTION.

Subpart 1. **SSTS business licenses.** The commissioner ~~may~~ is authorized to deny, suspend, restrict, revoke, place corrective action,

fine, raise bond amounts, or institute other sanctions against an SSTS business license for any of the following reasons:

Subp. 2. **Certification and apprentice.** If the commissioner ~~may~~ finds any of the following faults, the commissioner is authorized to deny, suspend, restrict, revoke, place corrective action, fine, or institute other sanctions against a certification or apprentice designation ~~for any of the following reasons~~:

Subp. 3. **Complaints.**

C. The commissioner shall evaluate the results of the investigation and consider expert advice as needed in order to determine whether enforcement actions are necessary. ~~The commissioner may convene and enlist expert advice from a technical advisory committee.~~

Subp. 6. **Nonlicensed violations.** The commissioner ~~may~~ shall fine, or impose other sanctions, for those implying or advertising to be a certified individual, apprentice, or licensed business or conducting SSTS activities without the required certification, apprenticeship, or license.

7083.2040 TRANSITIONING EXISTING REGISTRATIONS AND LICENSES.

Subpart 1. **Designers.** A business licensed, and an individual registered, as a designer I or designer II on the effective date of this chapter are reclassified as basic designers. A business reclassified as a basic designer under this chapter ~~may~~ is authorized to design all types ~~of ISTS and MSTS~~ and sizes of SSTS until three years after the effective date of this chapter. After that time, a business designing ~~a Type IV or Type V ISTS or MSTS~~ systems described under part 7083.0740, subpart 1, item B, must meet the requirements of this chapter.

Subp. 2. **Inspectors.** A business licensed, and an individual registered, as a designer I or inspector on the effective date of this chapter are reclassified as basic inspectors. A business or individual reclassified as an inspector under this chapter ~~may~~ is authorized to inspect all types of ~~ISTS and MSTS and administer local programs~~ SSTS until three years after the effective date of this chapter. After that time, the business or government employee inspecting ~~a Type IV or Type V ISTS or MSTS, or administering an SSTS regulatory program~~ systems described under part 7083.0740, subpart 1, item B, must meet the requirements of this chapter.

Subp. 4. **Service provider.** To gain a service provider license or certification, a business or individual must meet the requirements of this chapter. ~~A~~ An ISTS licensed business or a certified individual providing management services before the effective date of this chapter ~~may~~ is authorized to operate an SSTS until three years after the effective date of this chapter, without a service provider license. Three years after the effective date of this chapter, businesses and individuals providing SSTS management services must meet the requirements of this chapter.

Subp. 5. **Basic and continuing education.** Designer I's or designer II's on the effective date of this chapter who take training to upgrade to an advanced designer ~~or MSTS designer~~ within three years after the effective date of this chapter ~~may~~ shall have their training hours credited as fulfilling the continuing education hours specified in part 7083.1060. Designer I's or inspectors on the effective date of this chapter who take training to upgrade to an ~~MSTS~~ advanced inspector within three years after the effective date of this chapter ~~may~~ shall have their training hours credited as fulfilling the continuing education hours specified in part 7083.1060.

7083.4000 PRODUCT REVIEW AND REGISTRATION PROCESS.

Subpart 1. **General.**

A. The commissioner shall develop a product review and registration process and maintain a list of registered sewage treatment and distribution products for SSTS.

B. The commissioner shall develop recommended standards and guidance to assist local units of government in permitting different types of sewage treatment technologies and sewage distribution technologies, including the following five categories:

(1) public domain treatment technologies, such as sand filters;

(2) proprietary treatment technologies, such as manufactured aerobic treatment systems;

(3) public domain distribution technologies, such as drainfield rock or generic drainfield rock substitutes;

(4) proprietary distribution technologies, such as gravelless distribution products; and

(5) proprietary drip dispersal systems.

C. Sewage technologies shall have standards described in this chapter or agency recommended standards and guidance before local units of government are allowed to permit them. Recommended standards and guidance must include information and detail, such as application, design, installation, operation, monitoring and maintenance, and performance expectations, and sources of the information.

Subp. 2. **Proprietary treatment products; certification and registration.**

A. To qualify for product registration, manufacturers desiring to sell or distribute proprietary treatment products shall:

(1) verify product performance through testing using the testing protocol established in Table I in part 7083.4010 and register their product with the commissioner using the process described in parts 7083.4000 to 7083.4120;

(2) report test results of influent and effluent sampling obtained throughout the testing period, including normal and stress loading phases, for evaluation of constituent reduction according to Table II in part 7083.4020;

(3) demonstrate product performance according to Table III in part 7083.4030. All 30-day averages and geometric means obtained throughout the test period must meet the identified threshold values to qualify for registration at that threshold level; and

(4) verify bacteriological reduction according to part 7083.4060, for registration at Levels A and B in Table III in part 7083.4030.

B. Manufacturers verifying product performance through testing according to the following standards or protocols shall have product testing conducted by a qualified, third-party testing facility. Product performance testing shall be consistent with the following:

(1) National Sanitation Foundation (NSF) International, Residential Wastewater Treatment Systems, Standard 40 (July 2000). The standard is incorporated by reference, is available through the Minitex interlibrary loan system, and is not subject to frequent change;

(2) National Sanitation Foundation (NSF) International, Wastewater Treatment Systems - Nitrogen Reduction, NSF/ANSI 245 (2007). The standard is incorporated by reference, is available through the Minitex interlibrary loan system, and is not subject to frequent change;

(3) Environmental Protection Agency (EPA) and National Sanitation Foundation (NSF), Protocol for the Verification of Wastewater Treatment Technologies (April 2001). The protocol is incorporated by reference, is available through the Minitex interlibrary loan system, and is not subject to frequent change;

(4) Environmental Protection Agency (EPA) Environmental Technology Verification (ETV) Program, Protocol for the Verification of Residential Wastewater Treatment Technologies for Nutrient Reduction (November 2000). The protocol is incorporated by reference, is available through the Minitex interlibrary loan system, and is not subject to frequent change;

(5) European Committee for Standardization (CEN), Small Wastewater Treatment Systems for up to 50 PT - Part 3: Packaged and/or Site Assembled Domestic Wastewater Treatment Plants, EN 12566-3 (October 2003). The standard is incorporated by reference, is available through the Minitex interlibrary loan system, and is not subject to frequent change;

(6) other equivalent protocols and standards consistent with the above-referenced standards and protocol to verify product performance as approved by the commissioner; and

(7) protocol for bacteriological reduction described in part 7083.4060.

C. Treatment levels used in part 7083.4030 are not intended to be applied as field compliance standards. Their intended use is to establish treatment product performance in a product testing setting under established protocols by qualified testing entities.

7083.4010 TESTING REQUIREMENTS FOR PROPRIETARY TREATMENT PRODUCTS.

The testing protocols in this part are incorporated by reference under part 7083.4000, subpart 2, item B.

TABLE I

Treatment component/ sequence category	Required testing protocol
Category A: Designed to treat sewage with strength typical of a residential source when septic tank effluent is anticipated to be equal to or less than treatment Level C (Table III, part 7083.4030)	NSF Residential Wastewater Treatment Systems, Standard 40, or CEN European Standard, EN-12566-3
Category B: Designed to treat high-strength sewage when septic tank effluent is anticipated to be greater than treatment Level C (Table III, part 7083.4030), including restaurants, grocery stores, mini-marts, group homes, medical clinics, residences, etc.	EPA/NSF Protocol for the Verification of Wastewater Treatment Technologies, EPA/ETV Protocol for the Verification of Residential Wastewater Treatment Technologies for Nutrient Reduction, or equivalent
Total nitrogen and phosphorus reduction in Categories A and B	EPA Environmental Technology Verification, Protocol for the Verification of Residential Wastewater Treatment Technologies for Nutrient

	Reduction, or equivalent or NSF Wastewater Treatment Systems - Nitrogen Reduction, Standard 245

7083.4020 TEST RESULTS REPORTING REQUIREMENTS FOR PROPRIETARY TREATMENT PRODUCTS.

TABLE II

Treatment component/ sequence category	Testing results reported
Category A: Designed to treat sewage with strength typical of a residential source when septic tank effluent is anticipated to be equal to or less than treatment Level C (Table III, part 7083.4030)	Report test results for influent and effluent sampling obtained throughout the testing period for evaluation of consistent reduction for the parameters $CBOD_5$ and TSS: - Average - Minimum - Median - 30-day average (each month) - Standard deviation - Maximum - Interquartile range. For bacteriological reduction performance, report fecal coliform test results of influent and effluent sampling by geometric mean from samples drawn within 30-day or monthly calendar periods, obtained from a minimum of three samples per week throughout the testing period. See part 7083.4060. Test report must also include the individual results of all samples drawn throughout the test period.
Category B: Designed to treat high-strength sewage when septic tank effluent is anticipated to be greater than treatment Level C (Table III, part 7083.4030), including restaurants, grocery stores, mini-marts, group homes, medical clinics, residences, etc.	Report all individual test results and full test average values of influent and effluent sampling obtained throughout the testing period for $CBOD_5$, TSS, and oil and grease. Report the treatment capacity of the product tested in pounds per day for $CBOD_5$.

Total nitrogen and phosphorus reduction in Categories A and B	Report test results on all required performance criteria according to the format prescribed in the test protocol described in Table I, part 7083.4010.

7083.4030 PRODUCT PERFORMANCE REQUIREMENTS FOR PROPRIETARY TREATMENT PRODUCTS.

TABLE III

Treatment component/ sequence category						
	Product performance requirements					
Category A: Designed to treat sewage with strength typical of a residential source when septic tank effluent is anticipated to be equal to or less than treatment Level C.	Treatment system performance testing levels					
	Level	Parameters				
	$CBOD_5$ (mg/L)	TSS (mg/L)		O&G (mg/L)	FC (#/100ml)	Nutrient (mg/L)
	A	15	15	--	1,000	--
	B	25	30	--	10,000	--
	C	125	80	20	--	--
	TN	--	--	--	--	20
	TP	--	--	--	--	2
	Values for Levels A and B are 30-day values (averages for $CBOD_5$, TSS, and geometric mean for FC). All 30-day averages throughout the test period must meet these values in order to be registered at these levels. Values for Levels C, TN, and TP are derived from full test averages.					
Category B: Designed to treat high-strength sewage when septic tank effluent is anticipated to be greater than treatment Level C, including restaurants, grocery stores, mini-marts, group homes, medical clinics, residences, etc.	All of the following requirements must be met: (1) all full test averages must meet Level C; and (2) the treatment capacity of the product tested in pounds per day for $CBOD_5$ must be reported.					
Total nitrogen and phosphorus reduction in	Test results must establish product performance effluent quality meeting Levels TN and TP, when presented as the full test					

Categories A and B	average.

7083.4040 PROPRIETARY TREATMENT PRODUCTS REGISTRATION; PROCESS AND REQUIREMENTS.

A. Manufacturers shall register their proprietary treatment products with the commissioner by submitting a complete application in the format prescribed by the commissioner, including:

(1) the manufacturer's name, mailing address, street address, and telephone number;

(2) the contact individual's name, title, mailing address, street address, and telephone number. The contact individual must be a company official with the authority to represent the manufacturer in this capacity;

(3) the name, including specific brand and model, of the proprietary treatment product;

(4) a description of the function of the proprietary treatment product along with any known limitation of the use of the product;

(5) product description and technical information, including process flow drawings and schematics, materials and characteristics, component design specifications, design capacity, volumes and flow assumptions and calculations, components, dimensioned drawings, and photos;

(6) for treatment systems in Category B, daily capacity of the model or models provided in pounds per day of $CBOD_5$;

(7) siting and installation requirements;

(8) a detailed description, procedure, and schedule of routine service and system maintenance events;

(9) estimated operational costs for the first five years of the treatment component's life including estimated annual electricity usage and routine maintenance costs, including replacement of parts;

(10) identification of information requested to be protected from disclosure of trade secrets or confidential business information;

(11) copies of product brochures and manuals, such as sales, promotional, design, installation, operation, and maintenance materials and homeowner instructions;

(12) the most recently available product test protocol and results report;

(13) all available product testing results, including a listing of state approvals and denials;

(14) a signed and dated certification by the manufacturer's authorized senior executive or authorized agent specifically including the following statement: "I certify that I represent (INSERT MANUFACTURING COMPANY HERE) and I am authorized to prepare or direct the preparation of this application for registration. I attest, under penalty of law, that this document and all attachments are true, accurate, and complete. I understand and accept that the product testing results reported in this application for registration are the parameters and values to be used for determining conformance with treatment system performance testing levels established in *Minnesota Rules*, part 7083.4030.";

(15) a signed and dated certification from the testing entity including the statement: "I certify that I represent (INSERT TESTING ENTITY NAME) and I am authorized to report the testing results for this proprietary product. I attest, under penalty of law, that the report about the test protocol and results is true, accurate, and complete."; and

(16) a technology review fee if allowed by law.

B. Manufacturers shall submit each proprietary product for registration to the commissioner. Products within a single series or model line, sharing distinct similarities in design, materials, and capabilities, are allowed to be registered under a single application, consistent with their test protocols for the certification of other products within a product series. Products outside of the series or model line must be registered under separate applications.

C. Upon receipt of the application, the commissioner shall, within 60 days:

(1) review the application and verify the application for compliance with item A;

(2) if the application is not in compliance with item A, return the application for resubmittal with the requested information for full compliance with item A; and

(3) if the application is complete and the commissioner determines that the product meets or exceeds all applicable protocols, the commissioner shall place the product on the list of registered treatment devices. The list of registered treatment devices shall be maintained on the agency Web site.

D. Registrations are valid for up to three years, expiring on December 31 of the third year of registration, unless the product is recalled for any reason, found to be defective, or no longer available.

E. To renew technology registration, a manufacturer shall:

(1) submit a request for renewal of product registration at least 30 days before the current registration expires, using the form or in the format prescribed by the commissioner;

(2) submit the results of retesting if the product has completed retesting according to the protocol required for registration and a report from the testing entity has been issued since initial registration or previous renewal. Renewal must be based on the most recent test results; and

(3) provide an affidavit to the commissioner certifying whether the product has changed over the previous three years. If the product has changed, the affidavit must include a full description of the changes and how the changed product fulfills the requirements for initial

registration.

F. As part of the product registration renewal, the commissioner shall:

(1) request field assessment comments from local units of government no later than October 31 for product renewal;

(2) discuss with the Technical Advisory Panel of the advisory committee established under part 7083.6000 any field assessment information that impacts product registration renewal;

(3) notify the manufacturer of any product to be discussed with the Technical Advisory Panel, prior to discussion with the Technical Advisory Panel, regarding the nature of comments received; and

(4) renew, modify, or deny the product registration, based on information received during the renewal process.

G. The commissioner shall maintain a readily available list of proprietary treatment products meeting the registration requirements established in this chapter. The product registration is a condition of approval for use.

H. A manufacturer shall have readily accessible information, specific to a product's registered use in Minnesota, for designers, regulators, system owners, and other interested parties about the product, including but not limited to:

(1) a product manual;

(2) design instructions;

(3) installation instructions;

(4) information regarding operation and maintenance;

(5) homeowner instructions; and

(6) a list of representatives and manufacturer-certified service providers, if any.

7083.4050 TRANSITION FROM PREVIOUS REQUIREMENTS FOR AEROBIC TANK TREATMENT SYSTEMS AND OTHER TREATMENT SYSTEMS TO NEW REGISTERED LIST.

Except for Type V systems designated under part 7080.2400, as published in the *State Register*, volume 31, page 1061, and as subsequently adopted, the following conditions apply:

A. the installation of aerobic tank treatment systems as specified in *Minnesota Rules* 2005, chapter 7080, and other advanced treatment technologies is allowed for 24 months after the effective date of this chapter;

B. after 24 months after the effective date of this chapter, only those products registered under this chapter are allowed to be installed as directed in registration guidance documents;

C. to be registered, manufacturers of aerobic tank treatment systems shall apply for product registration. Aerobic tank treatment systems must meet all other requirements established in this chapter for registration; and

D. manufacturers of aerobic tank treatment system products shall meet all other requirements established in this chapter for product registration.

7083.4060 BACTERIOLOGICAL REDUCTION.

Subpart 1. **Scope.** This part establishes the requirements for registering bacteriological reduction processes.

Subp. 2. **Verification.** Manufacturers shall, for the purpose of product registration as described in parts 7083.4000 to 7083.4040 for meeting treatment Level A or B, verify bacteriological reduction performance by sampling and testing for fecal coliform.

Subp. 3. **Testing process.** All test data submitted for product registration must be produced by a qualified, third-party testing organization. Bacteriological reduction performance requirements must be determined while the treatment product or sequence is tested according to the NSF Standard 40 testing protocol, or other equivalent commissioner-approved testing protocol. The tester must:

A. collect samples from both the influent and effluent streams and identify the treatment performance achieved by the full treatment process, component, or sequence;

B. obtain influent characteristics within the range of 10^6 - 10^8 fecal coliform/100 mL calculated as 30-day geometric means during the test;

C. test the influent to any disinfection unit and report flow rate, pH, temperature, and turbidity at each occasion of sampling performed in item D;

D. obtain samples for fecal coliform analysis during both design loading and stress loading periods, as follows:

(1) grab samples shall be collected and analyzed from both the influent and effluent on three separate days of the week; and

(2) each set of influent and effluent grab samples must be taken from a different dosing time frame (morning, afternoon, or evening) so that samples have been taken from each dosing time frame by the end of the week;

E. conduct analyses for fecal coliform according to Standard Methods for the Examination of Water and Wastewater, prepared and published jointly by the American Public Health Association, American Water Works Association, and Water Environment Federation (1998). The standard methods are incorporated by reference, are available through the Minitex interlibrary loan system, and are subject to frequent change;

F. report the geometric mean of fecal coliform test results from all samples taken within 30-day or monthly calendar periods;

G. report the individual results of all samples taken throughout the test period for design loading and stress loading; and

H. report all maintenance and servicing conducted during the testing period, such as instances of cleaning an ultraviolet lamp or replenishment of chlorine chemicals.

Subp. 4. **Disinfection.** Manufacturers are allowed to register products that either:

A. use disinfection in treatment Levels A and B; or

B. use disinfection as a component of the process in treatment Level A or B.

7083.4070 DISTRIBUTION MEDIUM; CERTIFICATION AND REGISTRATION.

A. Drainfield rock distribution media shall meet the requirements in item D and the requirements contained in the recommended standards and guidance for public domain distribution products before local units of government are allowed to permit its use.

B. For nonrock distribution media, manufacturers shall register the distribution media, including gravelless distribution media and subsurface drip dispersal products, with the commissioner before the local unit of government is allowed to permit their use.

C. Manufacturers desiring to sell distribution media shall certify that the media meet the standards established in this part and register the media with the commissioner using the process in part 7083.4080.

D. Distribution media must:

(1) be constructed or manufactured from materials that are nondecaying and nondeteriorating and do not leach unacceptable chemicals when exposed to sewage and the subsurface soil environment;

(2) provide void space at least equal to the void space provided within a 12-inch layer of drainfield rock in a drainfield-rock-filled distribution system. The void space must be established by the distribution medium, system design, and installation. The density of the media must be maintained throughout the life of the system. This requirement is allowed to be met either on a lineal foot basis or on an overall system design basis;

(3) support the distribution pipe and provide suitable effluent distribution and infiltration rate to the absorption area at the soil interface; and

(4) maintain the integrity of the trench or bed. The material used, by its nature and manufacturer-prescribed installation procedure, must withstand the physical forces of the soil sidewalls, soil backfill, and weight of equipment used in the backfilling.

E. Subsurface drip dispersal products must:

(1) be warrantied by the manufacturer for use with sewage and for resistance to root intrusion;

(2) have a means to inhibit the accumulation of slime and bacterial growth within the drip line and plugging of the emitters. Emitter discharge rate must be controlled by the use of either pressurecompensating emitters or a pressure regulator.

7083.4080 PROPRIETARY DISTRIBUTION PRODUCTS; PROCESS AND REQUIREMENTS.

Subpart 1. **Proprietary media.** Manufacturers shall obtain registration of their proprietary media with the commissioner by submitting a complete application in the format prescribed by the commissioner, including:

A. the manufacturer's name, mailing address, street address, and telephone number;

B. the contact individual's name, title, mailing address, street address, and telephone number. The contact individual must be vested with the authority to represent the manufacturer in this capacity;

C. the name, including specific brand and model, of the proprietary distribution product;

D. a description of the function of the distribution medium along with any known limitations on its use;

E. a description of the medium and technical information, including schematics; materials and characteristics; component design specifications; design capacity; volumes and flow assumptions and calculations; components; and dimensioned drawings, photos, application, and use;

F. siting and installation requirements;

G. a detailed description, procedure, and schedule of routine service and system maintenance events;

H. identification of information requested to be protected from disclosure of trade secrets;

I. copies of product brochures and manuals, such as sales, promotional, design, installation, operation, and maintenance materials and homeowner instructions;

J. a quantitative description of the trench-bottom and sidewall absorption area or sizing criteria for drip dispersal systems for each model seeking registration. Manufacturers' quantitative description of the absorption area must be based on the surface area of the product that infiltrates effluent into the soil;

K. all available product testing results, including a listing of state approvals and denials;

L. a statement from a licensed professional engineer that certifies the technology meets the standards established in part 7083.4070;

M. a signed and dated certification by the manufacturer's senior executive or agent, specifically including the following statement: "I certify that I represent (INSERT MANUFACTURING COMPANY HERE) and I am authorized to prepare or direct the preparation of this application for registration. I attest, under penalty of law, that this document and all attachments are true, accurate, and complete.";

N. a signed and dated certification from the licensed professional engineer including the statement: "I certify that I represent (INSERT PROFESSIONAL ENGINEERING FIRM NAME) and that I am authorized to certify the performance for the proprietary distribution product presented in this application. I attest, under penalty of law, that the technology report is true, accurate, and complete."; and

O. a technology review fee if allowed by law.

Subp. 2. **Proprietary media products.** Manufacturers shall submit proprietary media products for registration to the commissioner. Products within a single series or model line sharing distinct similarities in design, materials, and capabilities are allowed to be registered under a single application. Products outside of the series or model line must be registered under separate applications.

Subp. 3. **Commissioner review.** Upon receipt of the application, the commissioner shall:

A. review the application and verify the application for compliance with subpart 1;

B. if the application is not in compliance with subpart 1, return the application for resubmittal with the requested information for full compliance with subpart 1; or

C. if the application is complete and the commissioner determines that the product meets or exceeds all applicable protocols, the commissioner shall place the product on the list of distribution products. The list of registered distribution products will be maintained on the agency Web site.

Subp. 4. **Duration of registration.** Registrations are valid for up to three years, expiring on December 31 of the third year of registration, unless the product is recalled for any reason, found to be defective, or no longer available.

Subp. 5. **Renewal.** To renew a proprietary distribution product registration, a manufacturer shall:

A. submit a request for renewal of product registration at least 30 days before the current registration expires, using the form or in the format prescribed by the commissioner; and

B. provide an affidavit to the commissioner certifying whether the product has changed over the previous three years. If the product has changed, the affidavit must include a full description of the changes and how the changed product fulfills the requirements for initial registration.

Subp. 6. **Commissioner review.** As part of the product registration renewal, the commissioner shall:

A. request field assessment comments from local units of government no later than October 31 for product renewal;

B. discuss with the Technical Advisory Panel of the advisory committee established under part 7083.6000 any field assessment information that affects product registration renewal;

C. notify the manufacturer of any product to be discussed with the Technical Advisory Panel, prior to discussion with the panel, regarding the nature of comments received; and

D. renew, modify, or deny the product registration based on information received during the renewal process.

Subp. 7. **List.** The commissioner shall maintain a list of readily available proprietary distribution products meeting the registration requirements established in this part. The product registration is a condition of approval for use.

Subp. 8. **Manufacturer information.** A manufacturer shall have readily accessible information, specific to a product's registered use in Minnesota, for designers, regulators, system owners, and other interested parties about the product, including but not limited to:

A. a product manual;

B. design instructions;

C. installation instructions;

D. information regarding operation and maintenance;

E. system owner instructions; and

F. a list of representatives and manufacturer-certified service providers, if any.

7083.4100 TRANSITION FROM PREVIOUS REQUIREMENTS FOR DISTRIBUTION PRODUCTS TO NEW REGISTERED LIST.

Except for Type V systems designed under part 7080.2400, as published in the *State Register*, volume 31, page 1061, and as subsequently adopted,the following conditions apply:

A. the distribution products specified in *Minnesota Rules* 2005, chapter 7080, are allowed to be installed for 24 months after the effective date of this chapter;

B. after 24 months after the effective date of this chapter, only those products registered under this chapter are allowed to be installed as directed in registration guidance documents;

C. to be registered, manufacturers of proprietary distribution products shall apply for product registration; and

D. distribution products shall meet all other requirements for registration established in this chapter.

7083.4110 PRODUCT DEVELOPMENT PERMITS.

Subpart 1. **Local government may issue.** A local unit of government is authorized to issue a product development permit (PDP) for any proprietary treatment component or sequence during the development period. A local unit of government is authorized to grant a PDP

to a Type I, Type II, or Type III system, as described under parts 7080.2200 to 7080.2300, as published in the *State Register*, volume 31, pages 1054 to 1059, and as subsequently adopted. A local unit of government is also authorized to grant a PDP to a Type IV system, as described under part 7080.2350, as published in the *State Register*, volume 31, page 1059, and as subsequently adopted, if treatment levels of the technologies meet or exceed requirements in the operating permit. The PDP is not an alternative to testing and registration.

Subp. 2. **Application contents.** An application for a PDP must include:

A. proof of an existing conforming system in compliance with all local requirements or a permit for a conforming system. The conforming system must be installed in its entirety before the PDP becomes valid;

B. a description of the product under development, including performance goals and a description of how the system will be used to treat sewage;

C. documentation by the manufacturer that provides for financial assurances to protect the owner, licensed businesses, and local units of government from claims and provides that the manufacturer will cover the correction of any potential public health threats or environmental damage resulting from the use of the product under development. Instruments of financial assurance include: an irrevocable letter of credit in the amount required by the local unit of government issued by an entity authorized to issue letters of credit in Minnesota; cash or a security deposit payable to the local unit of government in the amount required by the local unit of government; or any other financial assurance that satisfies the local unit of government;

D. documentation signed by the owner of the proposed product development site allowing access to the local unit of government and the agency and its employees or agents for inspection of the site;

E. an agreement to obtain all other required permits;

F. a declaration that the applicant meets all state requirements; and

G. other information required by the local unit of government.

Subp. 3. **Additional requirements.**

A. The local unit of government is authorized to stipulate additional requirements for a PDP necessary to ensure the performance of the conforming system, including, but not limited to, providing performance data to the local unit of government.

B. The system owner shall consent in writing to allow the manufacturer access to the system for the duration of the permit.

C. The product tester shall agree in writing to contact utility companies before excavation.

D. The manufacturer and product tester shall agree in writing to hold harmless, indemnify, and defend the agency and local unit of government from any conduct by the manufacturer or product tester that causes harm or injury to the site owner's property and indemnifies the agency and local unit of government from such claims.

Subp. 4. **PDP required for each site.** A PDP is a site-specific permit. Product development at multiple sites requires a PDP for each site.

Subp. 5. **Product developer has control.** During the term of the PDP, product development, testing, and sampling are under the full control of the product developer and all data collected is considered proprietary information.

Subp. 6. **PDP duration.** A PDP is valid for one year unless renewed by the local unit of government.

Subp. 7. **End of PDP period.** The product development period is over when the original PDP or any subsequently renewed permits have expired. At that time, the product developer shall, at the direction of the local unit of government, remove the product under development from the site, restore the real property to its original condition, and reestablish all appropriate plumbing and power connections for the conforming system.

Subp. 8. **Revocation or amendment of PDP.** The local unit of government is authorized to revoke or amend a PDP:

A. if the continued operation or presence of the product under development presents a risk to the public health or the environment, causes adverse effects on the proper function of the conforming system on the site, or leaks or discharges sewage on the surface of the ground;

B. if the product developer fails to comply with any requirement stipulated on the permit by the local unit of government; or

C. upon request of the site owner.

7083.4120 PRODUCT REGISTRATION CONTESTED CASE HEARING.

A person is afforded an opportunity for a contested case hearing under *Minnesota Statutes*, chapter 14, for an approval, denial, or other final agency action in relation to product registration or renewal, within 30 days of the action.

7083.6000 ADVISORY COMMITTEE.

Subpart 1. **Establishment.** An advisory committee on subsurface sewage treatment systems is established.

Subp. 2. **Duties.** The committee shall, subject to the approval of the commissioner, review and advise the agency on:

A. revisions to chapters 7080 to 7083, as published in the *State Register*, volume 31, pages 1023-1101, and as subsequently adopted, and legislation relating to SSTS;

B. technical data relating to SSTS;

C. a technical manual on SSTS;

D. educational materials and programs for SSTS;

E. the administration of standards and ordinances pertaining to SSTS at the state and local level;

F. the product registration and renewal process;

G. development of product registration advisory panels; and

H. other SSTS activities considered appropriate by the committee.

Subp. 3. **Membership.** The committee consists of the following voting members of whom:

A. two must be citizens of Minnesota, representative of the public;

B. one must be from the Minnesota Extension Service of the University of Minnesota;

C. six must be county administrators, such as zoning administrators, sanitarians, and environmental health specialists, each of whom administers an SSTS permitting or inspection program. The six administrators must be geographically distributed throughout the state;

D. one must be a municipal inspector who administers an SSTS permitting and inspection program;

E. one must be a township inspector who administers an SSTS permitting and inspection program;

F. seven must be SSTS designated certified individuals as defined in part 7083.0020, subpart 6, six of whom have geographic distribution throughout the state and the seventh representing the state at large, with each certification category represented on the committee;

G. two must be elected public officials with members having geographic distribution throughout the state; and

H. one must be a water well contractor.

Subp. 4. **Nonvoting members.** The following agencies and associations shall each have at least one nonvoting member to assist the advisory committee and to be advised, in turn, on matters relating to chapters 7080 to 7083, as published in the *State Register*, volume 31, pages 1023-1101, and as subsequently adopted: the agency, the Minnesota Department of Natural Resources, the Minnesota Department of Health, the Minnesota Department of Labor and Industry, the United States Department of Agriculture Natural Resource Conservation Service, the Minnesota Association of Professional Soil Scientists, the Metropolitan Council, the Association of Minnesota Counties, the Minnesota Association of Townships, the League of Minnesota Cities, the Minnesota Society of Professional Engineers, the Association of Small Cities, the Minnesota Association of Realtors, the Minnesota Environmental Health Association, SSTS supplier, the Minnesota On-Site Wastewater Association, the American Society of Home Inspectors, the Minnesota Small Business Association, Hospitality Minnesota, and Minnesota Waters.

Subp. 5. **Appointment; terms.** All voting members must be appointed by the commissioner from recommendations by the named entities or organizations. All members serve four-year terms, with terms staggered to maintain continuity. Voting members, except for individuals serving under subpart 3, item B, shall serve a maximum of two consecutive terms. If the voting member's attendance falls below 50 percent during the term, the appointed member loses membership status for the remaining term. The commissioner shall then appoint a replacement member for the remainder of the term from the recommendation offered by the affected entity or organization. In the case of a vacancy, the commissioner shall appoint a replacement member for the unexpired balance of the term. Administrators, inspectors, elected officials, and contractors must be bona fide residents of this state for at least three years before being appointed and must have at least three years' experience in their respective businesses or offices.

Subp. 6. **Procedural rules.** *Robert's Rules of Order Newly Revised*, Henry M. Robert (2000), must prevail at all meetings of the advisory committee. Robert's Rules of Order is incorporated by reference, is available through the Minitex interlibrary loan system, and is not subject to frequent change.

Subp. 7. **Quorum.** A quorum consists of nine voting members.

Exempt Rules

Exempt rules are excluded from the normal rulemaking procedures (*Minnesota Statutes* §§ 14.386 and 14.388). They are most often of two kinds. One kind is specifically exempted by the Legislature from rulemaking procedures, but approved for form by the Revisor of Statutes, reviewed for legality by the Office of Administrative Hearings, and then published in the *State Register*. These exempt rules are effective for two years only.

The second kind of exempt rule is one adopted where an agency for good cause finds that the rulemaking provisions of *Minnesota Statutes*, Chapter 14 are unnecessary, impracticable, or contrary to the public interest. This exemption can be used only where the rules:

(1) address a serious and immediate threat to the public health, safety, or welfare, or

(2) comply with a court order or a requirement in federal law in a manner that does not allow for compliance with *Minnesota Statutes* Sections 14.14-14.28, or

(3) incorporate specific changes set forth in applicable statutes when no interpretation of law is required, or

(4) make changes that do not alter the sense, meaning, or effect of the rules.

These exempt rules are also reviewed for form by the Revisor of Statutes, for legality by the Office of Administrative Hearings and then published in the *State Register*. In addition, the Office of Administrative Hearings must determine whether the agency has provided adequate justification for the use of this exemption. Rules adopted under clauses (1) or (2) above are effective for two years only. The Legislature may also exempt an agency from the normal rulemaking procedures and establish other procedural and substantive requirements unique to that exemption.

KEY: Proposed Rules - Underlining indicates additions to existing rule language. ~~Strikeouts~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated "all new material." **Adopted Rules** - Underlining indicates additions to proposed rule language. ~~Strikeout~~ indicates deletions from proposed rule language.

Department of Human Services

Adopted Exempt Permanent Rules Relating to General Assistance Program Changes

9500.1200 PURPOSE AND APPLICABILITY.

[For text of subpart 1, see M.R.]

Subp. 2. **Applicability.** ~~Parts~~ Part 9500.1254 ~~to 9500.1256 govern~~ governs application for maintenance benefits from other sources, execution of an interim assistance ~~authorization~~ agreement~~, provision of special services to assist the applicant or recipient in applying for other maintenance benefits,~~ and reimbursement for interim assistance~~, and reimbursement for provision of special services~~. When ~~parts~~ part 9500.1254 ~~to 9500.1256 conflict~~ conflicts with parts 9500.1236 to 9500.1248, then ~~parts~~ part 9500.1254 ~~to 9500.1256 shall prevail~~ prevails.

9500.1202 PURPOSE OF GENERAL ASSISTANCE PROGRAM.

The purposes of the general assistance program are:

A. to provide financial assistance and services to persons unable to provide for themselves, who have not refused suitable employment, and who are not otherwise provided for by law; and

B. ~~to provide work readiness services to help employable and potentially employable persons prepare for and attain permanent work; and~~

~~C.~~ to aid those persons who can be helped to become self-supporting or to attain self-care.

9500.1206 PROGRAM DEFINITIONS.

[For text of subps 1 to 3, see M.R.]

Subp. 4. [See repealer.]

[For text of subps 4a to 12, see M.R.]

Subp. 12a.**Diversionary work program or DWP.** "Diversionary work program" or "DWP" has the meaning given in *Minnesota Statutes*, section 256J.95.

Subp. ~~12a~~ 12b.**Documentation.** "Documentation" means a written statement or record that substantiates or validates an assertion made by a person or an action taken by a county agency.

Subp. ~~12b~~ 12c. **Earned income.** "Earned income" means compensation from lawful employment or lawful self-employment, including salaries, wages, tips, gratuities, commissions, earnings from self-employment, incentive payments from work or training programs, payments made by an employer for regularly accrued vacation or sick leave, earnings under title I of the Elementary and Secondary Education Act, employee bonuses and profit sharing, jury duty pay, picket duty pay, and profit from other lawful activities which accrues as a result of the individual's effort or labor. Earned income does not include returns from capital investment or benefits that accrue as compensation for lack of employment.

Subp. ~~12c~~ 12d. **Earned income tax credit.** "Earned income tax credit" means the payment that can be obtained by a qualified low-

income person from an employer or from the United States Internal Revenue Service under *United States Code*, title 26, section 32.

Subp. ~~12d~~ 12e. **Emergency.** "Emergency" means a situation that causes or threatens to cause a lack of a basic need item when there are insufficient resources to provide for that need.

Subp. ~~12e~~ 12f. **Encumbrance.** "Encumbrance" means a legal claim against real or personal property that is payable upon the sale of that property.

Subp. ~~12f~~ 12g. **Equity value.** "Equity value" means the amount of equity in real or personal property owned by a person. Equity value is determined by subtracting any outstanding encumbrances from the fair market value of the real or personal property.

Subp. 12g. [See repealer.]

Subp. 12h. **Fair hearing or hearing.** "Fair hearing" or "hearing" means the department evidentiary hearing conducted by an appeals referee to resolve the issues specified in part 9500.1211, subpart 4.

Subp. 12i. [See repealer.]

Subp. 12j. [See repealer.]

Subp. 12k. **Federal Insurance Contributions Act or FICA.** "Federal Insurance Contributions Act" or "FICA" means the federal law under *United States Code*, title 26, sections 3101 to 3126, that requires withholding or direct payment of income to the federal government.

Subp. 13. [See repealer.]

[For text of subps 13a and 14, see M.R.]

Subp. 14a. **General assistance.** "General assistance" means the program authorized under *Minnesota Statutes*, sections 256D.01 to 256D.21 and parts 9500.1200 to 9500.1272. ~~When the term general assistance is used in parts 9500.1200 to 9500.1272, it also means work readiness assistance and includes financial benefits received by persons under work readiness assistance.~~

[For text of subps 15 to 15d, see M.R.]

Subp. 16. [See repealer.]

[For text of subp 16a, see M.R.]

Subp. 17. **Interim assistance.** "Interim assistance" means the total amount of general assistance and Group Residential Housing (GRH) provided for a recipient~~, based on the state assistance standards and the negotiated rate provisions of part 9500.1237, subpart 7,~~ to cover the period for which a payment of another maintenance benefit is made. The amount of general assistance and GRH considered interim assistance is limited to the total amount the monthly payments for the assistance unit would have been reduced if the other maintenance benefits had been paid at the time of their accrual. The interim assistance period begins with the month of application for general assistance or GRH or the first month of eligibility for the other maintenance benefits, whichever is later. ~~Interim assistance does not include per diem payments made to shelters for battered women under *Minnesota Statutes*, section 256D.05, subdivision 3.~~

Subp. 18. **Interim assistance ~~authorization~~ agreement.** "Interim assistance ~~authorization~~ agreement" means the agreement in which the general assistance applicant or recipient agrees to reimburse the county agency for the amount of general assistance or Group Residential Housing (GRH) provided during the period when eligibility for another maintenance benefit program is being determined. The agreement must require reimbursement to the county agency only when the general assistance applicant or recipient is found eligible for another maintenance benefit program and the initial payment of those other maintenance benefits has been made.

[For text of subps 18a to 19b, see M.R.]

Subp. 19c. [See repealer.]

[For text of subp 20, see M.R.]

Subp. 20a. [See repealer.]

[For text of subps 21 and 22, see M.R.]

Subp. 22a. **Minnesota supplemental aid or MSA.** "Minnesota Family Investment Program" or "MFIP" means the assistance program authorized in *Minnesota Statutes*, chapter 256J.

Subp. ~~22a~~ 22b. **Minnesota supplemental aid or MSA.** "Minnesota supplemental aid" or "MSA" means the program established under *Minnesota Statutes*, sections 256D.33 to 256D.54.

[For text of subps 23 to 26, see M.R.]

Subp. 26a. [See repealer.]

[For text of subps 26b to 32, see M.R.]

Subp. 32a. [See repealer.]

[For text of subps 32b to 33, see M.R.]

9500.1213 APPLICATION REQUIREMENTS.

[For text of subpart 1, see M.R.]

Subp. 2. **County agency requirements.** A county agency must:

[For text of items A to E, see M.R.]

F. inquire and determine at the time of initial application if the applicant has an emergency as defined in part 9500.1206, subpart ~~12d~~

12e, and if so, determine the person's eligibility for emergency assistance under part 9500.1261.

[For text of subps 3 to 7, see M.R.]

9500.1215 DOCUMENTING, VERIFYING, AND REVIEWING ELIGIBILITY.

[For text of subps 1 to 3, see M.R.]

Subp. 4. **Factors to be verified.** The county agency must verify the factors of program eligibility in items A to C at the time of application, when a factor of eligibility changes, and at each redetermination of eligibility.

A. A county agency must verify:

(1) the identity of each adult and child for whom assistance is requested;

(2) age, if required to establish eligibility;

(3) state residence; and

(4) ~~the basis of a claim of exemption from participation in work readiness; and~~

~~(5)~~ the relationship of a caretaker to the child for whom application is made.

[For text of items B and C, see M.R.]

9500.1219 ASSISTANCE UNIT ELIGIBILITY.

[For text of subpart 1, see M.R.]

Subp. 2. **Exclusion of persons otherwise provided for by law.** Filing unit members shall not be included in an assistance unit if they meet one or more of the following conditions:

A. a filing unit member is receiving benefits under the DWP, MFIP, refugee cash assistance, SSI, or Minnesota supplemental aid programs, or has benefits paid on the member's behalf for foster care, child welfare, or subsidized adoption;

B. a filing unit member appears to be currently eligible for benefits under DWP, MFIP, or refugee cash assistance, or is eligible to have benefits paid on the member's behalf for foster care, child welfare, or subsidized adoption;

C. a filing unit member has been determined to be eligible for DWP, MFIP, or SSI but cannot receive benefits under those programs because the member refused or failed to comply with a requirement of those programs;

D. a filing unit member is a parent of a single adult applicant or recipient who resides with a single adult applicant together with the parents' other family members;

E. a filing unit member who is in a period of disqualification from DWP, MFIP, SSI, or general assistance due to noncompliance with a program requirement;

F. a filing unit member has, without good cause, refused or failed to comply with part 9500.1254; or

G. a filing unit member has refused to sign an interim assistance ~~authorization~~ agreement as required under ~~part 9500.1251, subpart 2, items F and G~~ *Minnesota Statutes*, section 256D.06, subdivision 5.

Subp. 3. **State residence requirement.** No applicant shall be included in an assistance unit unless the applicant is a resident of Minnesota. A resident is a person living in the state with the intention of making a home here and, not for any temporary purpose, as determined by items A to E.

[For text of items A, see M.R.]

B. The county agency must verify an applicant's statement of intent to make a home in Minnesota if questionable. An applicant's statement of intent to make a home in Minnesota is questionable if:

[For text of subitems (1) to (3), see M.R.]

(4) the applicant ~~is only present in the state as a resident of an excluded time facility~~ has only established residence in the state due to time spent in a facility referenced in *Minnesota Statutes*, section 256G.02, except that time spent in a battered women's shelter shall not be a basis for determining that a residence is questionable.

[For text of items C to E, see M.R.]

[For text of subp 4, see M.R.]

Subp. 5. [See repealer.]

Subp. 6. [See repealer.]

9500.1221 PROPERTY LIMITATIONS.

[For text of subpart 1, see M.R.]

Subp. 2. **Equity value; excluded real and personal property.** The equity value of all nonexcluded real and personal property must not exceed $1,000. The county agency shall exclude the value of the real or personal property in items A to T when determining equity value.

[For text of items A to P, see M.R.]

Q. The value of an applicant's nonliquid resources if ~~an applicant is excluded by part 9500.1251, subpart 2, item M, because~~ the

applicant's need for assistance will not exceed 30 days.

[For text of items R to T, see M.R.]

[For text of subp 3, see M.R.]

9500.1223 EXCLUDED INCOME.

[For text of subpart 1, see M.R.]

Subp. 2. **Excluded income of all filing unit members.** The county agency shall exclude items A to ~~BB~~ AA from the income of all filing unit members:

[For text of items A to G, see M.R.]

~~H. work and training allowances and reimbursements received through the work readiness program;~~

~~I.~~ H. work and training allowances received from county agency social services programs that are not classified as wages subject to FICA withholding;

~~J.~~ I. reimbursement for employment training received through the Job Training Partnership Act;

~~K.~~ J. reimbursement for out-of-pocket expenses incurred while performing volunteer services, jury duty, or employment;

~~L.~~ K. loans, whether from private, public, or governmental lending institutions, governmental agencies, and private individuals provided the filing unit member documents that the lender expects repayment. This exclusion does not include education loans on which payment is deferred;

~~M.~~ L. state and federal income tax refunds including Minnesota property tax refunds and the earned income tax credit;

~~N.~~ M. funds received for reimbursement, replacement, or rebate of personal or real property when these payments are made from public agencies, awarded by a court, solicited through public appeal, or made as a grant by a federal agency subsequent to a presidential declaration of disaster;

~~O.~~ N. payments issued by insurance companies which are specifically designated as compensation to a member of an assistance unit for partial or total permanent loss of function or body part or insurance payments specified under *Minnesota Statutes*, section 256.74, subdivision 1, clause (7);

~~P.~~ O. reimbursements for medical expenses which cannot be paid by medical assistance;

~~Q.~~ P. payments by the vocational rehabilitation program administered by the state under *Minnesota Statutes*, chapter 129A, except those payments that are for current living expenses;

~~R.~~ Q. in kind income, as defined in part 9500.1206, subpart 16a, except for payments made for room, board, tuition, or fees by a parent on behalf of a single adult applicant who is enrolled as a full-time student in a postsecondary institution;

~~S.~~ R. assistance payments to correct underpayments in a previous month;

~~T.~~ S. payments to an applicant or recipient issued under part 9500.1261, 9500.2800, or 9500.2820 for emergency or special needs; however, an initial month's grant may be reduced by the amount of emergency assistance issued to cover that month's needs;

~~U.~~ T. nonrecurring cash gifts, such as those received for holidays, birthdays, and graduations, not to exceed $30 per filing unit member in a calendar quarter;

~~V.~~ U. tribal settlements excluded under *Code of Federal Regulations*, title 45, section 233.20(a)(4)(ii)(e), (k), and (m);

~~W.~~ V. any form of energy assistance payment made by the Low Income Home Energy Assistance Program, payments made directly to energy providers by other public and private agencies, benefits issued by energy providers when the Minnesota Department of Employment and Economic Development determines that those payments qualify under *Code of Federal Regulations*, title 45, section 233.53, and any form of credit or rebate payment issued by energy providers;

~~X.~~ W. the first $50 of child support received;

~~Y.~~ X. proceeds from the sale of real or personal property;

~~Z.~~ Y. payments made from state funds for subsidized adoptions under *Minnesota Statutes*, section 259.67;

~~AA.~~ Z. interest payments and dividends from property that is not excluded from and does not exceed the $1,000 limit under part 9500.1221, subpart 2; and

~~BB.~~ AA. income that is otherwise specifically excluded from MFIP consideration in federal law, state law, or federal regulation.

Subp. 3. **Additional income exclusions, filing unit member who is not a member of assistance unit.** In addition to the income exclusions in subpart 2, the county agency shall exclude the following income of a filing unit member who is not a member of the assistance unit:

[For text of items A and B, see M.R.]

C. income of a stepparent or of a sibling of a single adult applicant or recipient;

D. an amount equal to the standards assigned to filing unit members who are not in the general assistance unit in part 9500.1231, subpart 6, item A; and

E. child support, spousal support, or other payments to meet the needs of a person who lives outside of the household who is or

could be claimed as a dependent for federal personal income tax liability or for whom payment is required by court order.

Subp. 4. [See repealer.]

Subp. 5. **Additional income exclusions, assistance unit consisting of individuals who are not members of a family.** In addition to the income exclusions in subpart 2, the county agency shall exclude the following costs from the income of filing unit members when the assistance unit consists of individuals who are not members of a family:

[For text of items A to F, see M.R.]

~~G. public assistance payments received by women residing in facilities for battered women as described in *Minnesota Statutes*, section 256D.05, subdivision 3, for whom general assistance payments are made to pay for residence in the facility;~~

~~H.~~ stipends received from the displaced homemaker services program; and

~~I.~~ H. in addition to the $50 specified in item A, up to $150 per month from the earnings of a resident of a facility licensed under parts 9520.0500 to 9520.0690 or a resident of a supervised apartment with services funded under parts 9535.0100 to 9535.1600 for whom discharge and work are part of a treatment plan, provided that the disregarded sum is placed in a separate savings account by the resident.

9500.1233 FINANCIAL ELIGIBILITY TESTS.

[For text of subps 1 and 3, see M.R.]

Subp. 4. [See repealer.]

Subp. 5. **Payment eligibility test.** Each assistance unit must pass a test of payment eligibility prospectively and retrospectively for each program month that the unit is otherwise eligible.

~~A. Family assistance units which have passed the gross income test, must use the income described in subpart 4 to determine payment eligibility except that:~~

~~(1) earned income of a dependent child who is a part-time or full-time student must be excluded; and~~

~~(2) the disregards as determined in part 9500.1235 must be deducted from earned income.~~

~~B.~~ A. Assistance units which do not contain a member of a family must use the income determined in parts 9500.1223 to 9500.1226 to determine payment eligibility.

~~C.~~ B. The county agency must apply the assistance unit's countable income against the assistance unit's standard. If the income is equal to or greater than the standard, the assistance unit must be denied assistance or assistance must be terminated.

9500.1237 AMOUNT OF ASSISTANCE PAYMENT.

[For text of subps 1 and 2, see M.R.]

Subp. 3. [See repealer.]

[For text of subp 4, see M.R.]

Subp. 5. [See repealer.]

Subp. 6. **Assistance payment when need will not exceed 30 days.** ~~For persons who are exempt from registration with the work readiness program under part 9500.1251, subpart 2, item M,~~ The county agency shall issue a grant determined by subtracting any countable income that the applicant has received since the first of the calendar month of application and any countable income the applicant is expected to receive before the date on which the county agency has anticipated that the applicant will lose eligibility for general assistance, from his or her prorated standard of assistance. The prorated standard of assistance must be determined by comparing the number of days between the date of application or the date all eligibility factors have been met, whichever is later, and the date which the county agency has anticipated that the applicant will lose eligibility for general assistance, with a 30-day month.

Subp. 7. [See repealer.]

Subp. 8. [See repealer.]

Subp. 9. [See repealer.]

9500.1239 PAYMENT PROVISIONS.

[For text of subps 1 and 2, see M.R.]

Subp. 3. **Special voucher or vendor payment provisions.** Assistance must be paid directly to a recipient, except as provided in items A to ~~H~~ F.

[For text of items A to F, see M.R.]

~~G. When a county agency has established a negotiated rate with providers of room and board, boarding care, supervised living, or adult foster care, payment shall be made by vendor payment.~~

~~H. When an applicant or recipient resides in a shelter facility as defined in *Minnesota Statutes*, section 256D.05, subdivision 3, payment shall be made by vendor payment.~~

9500.1243 BUDGETING.

Subpart 1. **Prospective budgeting.** A county agency shall use prospective budgeting to calculate the assistance payment amount for the first two months for an applicant who has not received general assistance for at least one payment month preceding the first month of payment under a current application, subject to items A to E.

[For text of items A to C, see M.R.]

D. An assistance unit shall have the assistance payment amount determined prospectively according to items A to C if the assistance unit:

(1) has had assistance suspended for a month as provided by part 9500.1233, subpart 2; and

(2) has experienced a recurring change of at least $50 in net income~~, exclusive of the disregards in part 9500.1235, items B and C,~~ in the month preceding the month of suspension or in the month of suspension.

E. An individual who enters a facility with a negotiated rate or a shelter facility described in *Minnesota Statutes*, section 256D.05, subdivision 3, shall have an assistance payment determined prospectively from the date the individual entered the facility. Any income, including grants of public assistance, received by the individual before entering the facility must only be applied against the assistance unit's standard specified under part 9500.1231, subpart 2~~, and not against the payment to the facility as specified in part 9500.1237, subparts 7 and 8~~. Any assistance payments made to the individual beginning two months after the month the individual leaves the facility must be determined retrospectively according to subpart 2.

[For text of subps 2 to 5, see M.R.]

9500.1245 APPLICANT AND RECIPIENT RESPONSIBILITIES.

[For text of subps 1 to 4, see M.R.]

Subp. 5. **Changes which must be reported.** Recipients shall report the changes or anticipated changes specified in items A to ~~K~~ J within ten days after the date they occur, within ten days after the date the recipient learns that the change will occur, at the time of the periodic redetermination under subpart 6, or within eight calendar days after a reporting period as in subpart 3, whichever occurs first. A recipient shall report other changes at the time of the periodic redetermination of eligibility under subpart 6 or at the end of a reporting period under subpart 3 as applicable. A recipient shall make these reports in writing or in person to the county agency. Changes in circumstances which must be reported within ten days must also be reported on the household report form for the reporting period in which those changes occurred. Within ten days, a recipient must report changes in:

[For text of items A to E, see M.R.]

~~F. change in the physical or mental status of a recipient who is exempt from work readiness registration due to the physical or mental condition;~~

~~G.~~ F. the marriage or divorce of an assistance unit member;

~~H.~~ G. a change in the household composition including departures from and returns to the home of filing unit members, or the birth or death of a member of the filing unit;

~~I.~~ H. a change in the address or living quarters of an assistance unit;

~~J.~~ I. the sale, purchase, or other transfer of property; and

~~K.~~ J. a change in school attendance of a child over 15 years of age or an adult member of an assistance unit.

[For text of subps 6 and 7, see M.R.]

Subp. 8. [See repealer.]

Subp. 9. [See repealer.]

9500.1254 REFERRAL TO OTHER MAINTENANCE BENEFIT PROGRAMS.

[For text of subpart 1, see M.R.]

Subp. 2. **Informing and referral requirement.** When the county agency determines that the applicant or recipient is potentially eligible for other maintenance benefits, the county agency shall refer the applicant or recipient to the other maintenance benefit program on a form prescribed by the commissioner by informing the applicant or recipient orally and in writing of the following:

[For text of item A, see M.R.]

B. that the applicant or recipient must execute an interim assistance~~authorization~~ agreement, according to subpart 4, item D;

[For text of items C to G, see M.R.]

H. that the applicant or recipient may elect to receive special services to assist in applying for SSI benefits~~, according to part 9500.1256, subpart 1, and that the applicant or recipient has a right to choose to receive special services from a qualified provider~~;

[For text of items I and J, see M.R.]

Subp. 3. [See repealer.]

Subp. 4. **Requirements upon referral for other maintenance benefits.** When the county agency refers an applicant or recipient to another maintenance benefit program as provided under subpart 2, the applicant or recipient shall do the following:

[For text of items A to C, see M.R.]

D. An applicant or recipient shall execute an interim assistance ~~authorization~~ agreement with the county agency within 30 days of the date of referral.

If the recipient fails to execute an interim assistance ~~authorization~~ agreement within the 30 days prescribed, the county agency shall mail or give the recipient notice of termination from general assistance according to subpart 5.

Subp. 5. **Ineligibility.** This subpart governs termination of general assistance eligibility for a recipient who fails, without good cause, to comply with the requirements of subpart 4.

A. Upon determining that a recipient has failed, without good cause, to comply with the requirements of subpart 4, the county agency shall mail or give the recipient notification of termination from general assistance. The county agency shall hand deliver or mail the written notice to the recipient at least 30 days before reducing, suspending, or terminating the recipient's monthly general assistance payment. The notice must be on a form prescribed by the commissioner and must:

[For text of subitems (1) to (3), see M.R.]

(4) inform the recipient of the continued availability of special services ~~provided under part 9500.1256, subpart 1~~.

[For text of items B to D, see M.R.]

[For text of subp 6, see M.R.]

Subp. 7. **Reimbursement for interim assistance.** A county agency must seek reimbursement for the interim assistance provided to a person who has executed an interim assistance ~~authorization~~ agreement under subpart 4, item D, when the person receives a retroactive payment of other maintenance benefits unless reimbursement is prohibited under federal or state law. ~~Reimbursement for interim assistance and special services provided to an SSI applicant or recipient is governed by part 9500.1256, subpart 2.~~

The county agency must request reimbursement for interim assistance from the person receiving other retroactive maintenance benefits, except for SSI, or in those instances where the state or county agency has rights of subrogation under *Minnesota Statutes*, section 256.03. If a request for reimbursement under this subpart is denied, the county agency may institute a civil action to recover the interim assistance based on the interim assistance ~~authorization~~ agreement. The county agency must take no action other than a civil action to recover the interim assistance.

9500.1261 EMERGENCY ASSISTANCE.

[For text of subps 1 and 2, see M.R.]

Subp. 3. **Eligible persons.** Eligible individuals, married couples, or families are those:

A. who are not current recipients of ~~AFDC, other than a one-person assistance unit consisting of a pregnant woman~~ DWP or MFIP;

B. who are not recipients under or eligible for ~~the program of~~ county emergency assistance ~~under AFDC~~ through the MFIP consolidated fund program under *Minnesota Statutes*, section 256J.626, in the month of application for emergency general assistance

[For text of items C to E, see M.R.]

[For text of subps 4 to 6, see M.R.]

REPEALER. *Minnesota Rules*, parts 9500.1206, subparts 4, 12g, 12i, 12j, 13, 16, 19c, 20a, 26a, and 32a; 9500.1219, subparts 5 and 6; 9500.1223, subpart 4; 9500.1232, subpart 5; 9500.1233, subpart 4; 9500.1235; 9500.1237, subparts 3, 5, 7, 8, and 9; 9500.1245, subparts 8 and 9; 9500.1251; 9500.1254, subpart 3; 9500.1256; and 9500.1259, subpart 1, are repealed.

Executive Orders

The governor has the authority to issue written statements or orders, called Executive Orders. as well as Emergency Executive Orders. The governor's authority is specified in the *Constitution of the State of Minnesota*, Article V, and in *Minnesota Statutes* § 4.035. Emergency Executive Orders, for protection from an imminent threat to health and safety, become effective immediately, are filed with the secretary of state, and published in the *State Register* as soon as possible after they are issued. Other Executive Orders become effective 15 days after publication in the *State Register* and filing with the secretary of state. Unless otherwise specified, an executive order expires 90 days after the date the governor who issued the order vacates office.

Office of the Governor

Executive Order # 08-03: Creating the Minnesota Office of Energy Security within the Department of Commerce

I, TIM PAWLENTY, GOVERNOR OF THE STATE OF MINNESOTA, by virtue of the authority vested in me by the Minnesota Constitution and applicable statutes, do hereby issue this Executive Order:

WHEREAS, issues relating to the generation, transmission, distribution and consumption of energy, including cost, efficiency, reliability and environmental affect all Minnesotans; and

WHEREAS, the Department of Commerce and other agencies within state government are involved with various aspects of regulation and oversight of energy and climate issues; and

WHEREAS, the climate impacts from greenhouse gas emissions include emissions from energy production and use and require a dedicated, comprehensive, and cross-agency approach; and

WHEREAS, it would be beneficial to have a single, easily identifiable entity within state government to coordinate state policy, programs and information on energy and climate change and provide greater visibility to the importance of these issues.

NOW, THEREFORE, I hereby order:

1. The Commissioner of Commerce will create within the Department of Commerce the Office of Energy Security ("OES"). The Commissioner of Commerce, in consultation with the Governor's Office, will appoint a Director of the OES.

2. The Director of the OES will implement the Commissioner of Commerce's statutory powers and duties over energy, climate change and greenhouse gas emissions, including those set forth in *Minnesota Statutes* 2006, 216A, 216B, 216C, 216E, 216F, 216G and 216H, as amended. Consistent with state law, the Commissioner will execute the appropriate delegation of authority documents to provide the Director of OES the authority to carry out the Commissioner's powers and duties related to energy, climate change and greenhouse emissions.

3. In addition, the OES will serve as a lead entity to coordinate cooperation, resources and information between state agencies that have responsibilities for matters relating to energy, climate change and greenhouse gas emissions. The OES will also coordinate public information from the state government on energy issues as they relate to climate change and greenhouse gas emissions.

4. In relation to the Public Utilities Commission, the role of the OES will be limited to carrying out the responsibilities assigned to the Commissioner of Commerce pursuant to *Minnesota Statutes* 2006, Chapters 216A, 216B, 216C, 216E, 216F, 216G and 216H, as amended.

5. The Commissioners of Natural Resources, Pollution Control, Transportation, Agriculture, Metropolitan Council, Department of Labor and Industry, Housing Finance, Employment and Economic Development and Administration will work cooperatively with the Director of OES to implement this order.

6. To ensure efficient use of resources, staff and the continuity of programs, the Director of OES may also serve as a deputy or assistant commissioner for the Department of Commerce and perform other responsibilities as directed by the Commissioner of Commerce.

Pursuant to *Minnesota Statutes* 2006, Section 4.035, Subdivision 2, this Executive Order will be effective fifteen (15) days after publication in the *State Register* and filing with the Secretary of State and will remain in effect until is rescinded by proper authority or it expires in accordance with Minnesota Statutes 2006, Section 4.035, Subdivision 3.

IN TESTIMONY WHEREOF, I have set my hand this 17th day of January, 2008.

Signed: TIM PAWLENTY
Governor

File According to Law

Signed: MARK RITCHIE
Secretary of State

Office of the Governor

Executive Order # 08-04: Creating the Governor's Clean Energy Technology Collaborative

I, TIM PAWLENTY, GOVERNOR OF THE STATE OF MINNESOTA, by virtue of the authority vested in me by the Constitution and applicable statutes, do hereby issue this executive order:

WHEREAS, Minnesota has set aggressive goals for securing a future that incorporates greater use of clean energy and reduces the state's greenhouse gas emissions, including the goals of reducing green house gas emissions by 80% by 2050 and the goal of having 25% of our energy come from renewable energy resources by the year 2025; and

WHEREAS, in order to meet these goals, breakthroughs in the research, development and implementation of advanced clean energy technologies are needed; and

WHEREAS, significant clean energy research and development work is occurring within Minnesota's institutions of higher education and within the private sector; and

WHEREAS, Minnesota would benefit from more effective coordination and collaboration between knowledgeable Minnesotans from academia, private industry and government offices with clean energy technology research and development expertise and experience to craft the roadmap outlining long-term and sustainable strategies for clean energy technologies, research and development priorities in the State of Minnesota, as well as benchmarks for the most promising technological breakthroughs needed to achieve the state's clean energy goals.

NOW, THEREFORE, I hereby order:

1. The creation of the Governor's Clean Energy Technology Collaborative ("Collaborative").

2. The Collaborative will be comprised of up to 15 members appointed by the Governor as follows:

   a. Up to five members who work for institutions of higher education within the State of Minnesota and have significant knowledge and experience in the research and development of clean energy technologies or the implementation of new clean energy technologies.

.

   b. Up to five members who work for businesses with operations in Minnesota and have significant knowledge and experience in the research and development of clean energy technologies or the implementation of new clean energy technologies.

   c. The remaining members are general members and should be individuals who have significant knowledge and experience in the research, development or deployment of clean energy technologies or other experience or expertise that would be helpful to the Collaborative.

d. The Governor will designate a member to serve as the chair.

e. Members will serve a two year term at the pleasure of the Governor and the Governor will fill any vacancies.

f. Members will not receive per diem or reimbursement for expenses.

3. The Director of the Office of Energy Security, and the Commissioners of Agriculture, Employment and Economic Development and the Pollution Control Agency will serve as ex officio members of the Collaborative and provide appropriate administrative support to the Collaborative.

4. The Collaborative will be a forum for experts to discuss issues that impact the development of new technologies in clean energy that utilize Minnesota expertise, Minnesota resources and benefit Minnesota by reducing greenhouse gas emissions. The Collaborative will provide advice and recommendations to the Governor on matters relating to advances in technology and research necessary to achieve Minnesota's long-term clean energy goals.

a). The Collaborative should identify the most promising research and development relating to clean energy technology that may be beneficial to Minnesota and identify the primary issues related to effective current or future implementation of the technologies.

b). The Collaborative should develop a roadmap of its recommendations that identifies the scientific and technological advances needed to achieve Minnesota's long term clean energy goals. The roadmap should include recommendations that outline:

i.) the needed and most promising technologies;
ii.) quantify the anticipated benefits these technologies will likely provide;
iii.) timetables that identify when technologies are likely to be available;
iv.) identify benchmarks in the research, development or deployment of the technologies that reflect progress toward the advancement and end use of the technologies to achieve the benefits toward the state's clean energy goals;
v.) identify obstacles to the most promising technologies and provide recommendations on the variety of means that may be available to overcome the obstacles.

c.) The Collaborative should consider in its recommendations the utilization of technologies that take advantage of Minnesota's sustainable agricultural and natural resources and Minnesota's business and academic expertise.

5. The Collaborative will meet begin as soon as possible following completion of the open appointment process. The Collaborative will recommend a time table for developing the roadmap.

Pursuant to *Minnesota Statutes* 2006, section 4.035, subdivision 2, this Executive Order will be effective fifteen (15) days after publication in the *State Register* and filing with the Secretary of State and will remain in effect in accordance with *Minnesota Statutes* 2006, Section 4.035, Subdivision 3.

signed: **TIM PAWLENTY**
Governor

Filed According to Law

signed: **Mark Ritchie**
Secretary of State

Official Notices

Pursuant to *Minnesota Statutes* §§ 14.101, an agency must first solicit comments from the public on the subject matter of a possible rulemaking proposal under active consideration within the agency by publishing a notice in the *State Register* at least 60 days before publication of a notice to adopt or a notice of hearing, and within 60 days of the effective date of any new statutory grant of required rulemaking.

The *State Register* also publishes other official notices of state agencies and non-state agencies, including notices of meetings and matters of public interest.

Board of Animal Health
Quarterly Meeting February 13, 2008

The Minnesota Board of Animal Health will hold its quarterly meeting on Wednesday, February 13, 2008 at the Orville L. Freeman Building, 625 Robert St. N, St. Paul, MN 55155. The meeting will be in Room B555 and start at 9:30am.

Minnesota State Colleges and Universities
Notice of Public Hearings on Proposed State Career and Technical Education Plan

The Minnesota State Colleges and Universities system will host a series of public hearings in February on a proposed five-year plan for Minnesota's career and technical education programs, which serve about 180,000 high school students and 280,000 students in college credit and non credit programs.

Developed by the system, the proposed state plan addresses how the funds provided to Minnesota under the federal Carl D. Perkins Act of 2006 will advance career and technical education in Minnesota high schools and state colleges. The system is the state agency designated by the U. S. Department of Education to develop and administer the plan.

The proposed plan will be available on a Web site *www.perkinsplan.project.mnscu.edu* by Feb. 1. Members of the public also may send comments through that Web site.

The hearings will be held from 5 p.m. to 8 p.m. at the following locations:

Feb. 13	MN State University, Mankato	Conference Center C
Feb. 21	Lake Superior College, Duluth	F1981

A satellite broadcast hearing will be held Feb. 20 from 5 p.m. to 7 p.m. For more information, call (651) 296-3906. Two additional hearings will be held, but the locations have not been determined. One will be in greater Minnesota on Feb. 7 and the other hearing will be in the Twin Cities on Feb. 19.

Check *www.perkinsplan.project.mnscu.edu* for the location and time.

For more detailed information, contact Pradeep Kotamraju, (651) 282-5569, *Pradeep.kotamraju@so.mnscu.edu* or Dan Smith, (651) 582-8330, *dan.smith@state.mn.us*.

The Minnesota State Colleges and Universities Board of Trustees is expected to act on the new plan at its March meeting. Each state must submit its plan to the U.S. Department of Education by April 1.

The Minnesota State Colleges and Universities system comprises 32 state universities and community and technical colleges serving higher education needs of Minnesota. The system serves about 242,500 students per year in credit-based courses and an additional 140,000 students in non-credit courses.

Official Notices

Governor's Office

Council on Faith and Community Service Initiatives

Notice of 2008 Meetings

NOTICE IS HEREBY GIVEN that the Governor's Council on Faith and Community Service Initiatives will meet on the below dates and location to make recommendations on how to develop a closer connection between government and faith and community organizations. The scheduled time for all meetings is from 4:00-5:30 p.m.

February 15 – State of Minnesota, Administration Building, 50 Sherburne Avenue, St. Paul, Conference Room 116C
April 19 – State of Minnesota, Administration Building, 50 Sherburne Avenue, St. Paul, Conference Room 116 C
June 14 - State of Minnesota, Centennial Office Building, 658 Cedar Street, Ground Floor, Ladyslipper Conference Room
August 16 - State of Minnesota, Centennial Office Building, 658 Cedar Street, Ground Floor, Ladyslipper Conference Room
October 18 - State of Minnesota, Centennial Office Building, 658 Cedar Street, Ground Floor, Ladyslipper Conference Room
December 20 - State of Minnesota, Centennial Office Building, 658 Cedar Street, Ground Floor, Ladyslipper Conference Room

For more information contact:

Lee Buckley, Special Advisor on Faith and Community Service
Office of Governor Tim Pawlenty
50 Sherburne Avenue, Room 200
St. Paul, MN 55155
Phone: (651) 201-2567
Fax: (651) 297-7909
E-mail: Lee.Buckley@state.mn.us

Minnesota Department of Health

Notice of the Listy of Analytes Available for Certification

Related to Rules Governing Environmental Laboratory Certification, *Minnesota Rules*, 4740.2010 through 4740.2120

This notice is given to meet requirements in Minnesota Rules 4740.2050, Subpart 3.

Every six months, the Minnesota Department of Health reviews the list of analytes available for certification and publishes revisions to the list. The department revises the list based on recommendations from the state and federal agencies utilizing the environmental laboratory certification program. The department reviewed the list of analytes and required no revisions.

The list of analytes available for certification by the department will be available on the program's website: *http://www.health.state.mn.us/divs/phl/cert/index.html*. To submit comments on the list or request additional information, please contact Susan Wyatt, Minnesota Department of Health, Environmental Laboratory Certification Program, 601 Robert Street North, St. Paul, MN 55164-0899, phone (651) 201-5323, e-mail: *susan.wyatt@health.state.mn.us*.

Department of Human Services

Health Care Purchasing and Delivery Systems Division

Health Care Administration

Public Notice of Maximum Allowable Costs of Medical Assistance Outpatient Prescribed Drugs

NOTICE IS HEREBY GIVEN to recipients, providers of services, and to the public of additions to the state Medical Assistance maximum allowable cost (state MAC) list for certain outpatient prescribed drugs.

At least once each calendar year, the United States Department of Health and Human Services, Centers for Medicare & Medicaid Services, publishes a federal upper limit (FUL) payment schedule for many commonly prescribed multiple-source drugs. The federal upper limit is set at a rate equal to 150 percent of the published price for the least costly therapeutic equivalent that can be purchased by pharmacists. This FUL payment schedule constitutes the federal MAC list. For many multiple-source drugs that are not on the federal MAC list, the Department establishes a state MAC list. Additionally, the Department imposes a state MAC for many multiple-source drugs that are on the federal MAC list, as long as the savings are at least as much as the savings would be using the federal MAC list.

The Department requires Medical Assistance pharmacy providers to submit their usual and customary costs. Pharmacy providers are reimbursed at the lower of: 1) the federal or state MAC, plus a dispensing fee; 2) the submitted usual and customary charge to the general public; or 3) a discount off of average wholesale price, plus a dispensing fee.

On January 13, 2003 at 27 SR 1117-1130, the Department published the MAC list, listing the federal and state MACs. Additional changes to the state MAC list were published on February 18, 2003 (27 SR 1331-1334), March 3, 2003 (27 SR 1386-1393), April 21, 2003 (27 SR 1583-1584), August 4, 2003 (28 SR 102-103), October 13, 2003 (28 SR 505-506), October 20, 2003 (28 SR 528-529), December 15, 2003 (28 SR 784-785), January 26, 2004 (28 SR 934-935), March 8, 2004 (28 SR 1089-1090), April 5, 2004 (28 SR 1232), April 19, 2004 (28 SR 1313-1314), May 3, 2004 (28 SR 1367-1368), August 9, 2004 (29 SR 173), August 23, 2004 (29 SR 224-225), November 8, 2004 (29 SR 510), November 15, 2004 (29 SR 534-535), February 7, 2005 (29 SR 923-924), February 14, 2005 (29 SR 951-952), March 7, 2005 (29 SR 1038-1039), April 11, 2005 (29 SR 1174-1175), June 27, 2005 (29 SR 1607), July 18, 2005 (30 SR 49-50), August 15, 2005 (30 SR 147), August 29, 2005 (30 SR 226-227), October 17, 2005 (30 SR 402-403), November 14, 2005 (30 SR 511-512), December 12, 2005 (30 SR 617-618), January 9, 2006 (30 SR 770-771), January 30, 2006 (30 SR 833), February 13, 2006 (30 SR 884), February 27, 2006 (30 SR 926-927) March 20, 2006 (30 SR 1006-1007) , April 10, 2006 (30 SR 1109), May 30, 2006 (30 SR 1249-1250), July 31, 2006 (31 SR 138-139), August 21, 2006 (31 SR 268), September 18, 2006 (31 SR 380 - 381), October 2, 2006 (31 SR 474-477), October 16. 2006 (31 SR 519-520), November 6, 2006 (31 SR 614), January 2, 2007 (31 SR 867-868), January 29, 2007 (31 SR 958-959), February 26, 2007 (31 SR 1169-1170), April 23, 2007 (31SR 1444-1445), April 30, 2007 (31 SR 1523), June 18, 2007 (31 SR 1810-1811), July 23, 2007 (32 SR 219-220), August 6, 2007 (32 SR 301-302), August 27, 2007 (32 SR 380-381), September 24, 2007 (32 SR 572-573), October 8, 2007 (SR 32 667-668), November 5, 2007 (32 SR 811- 812), November 19, 2007 (32 SR 909-910), December 31, 2007 (32 SR 1234-1235) and January 14, 2008 (32 SR 1289).

Effective January 29, 2008 the Department will add the following outpatient prescribed drugs to the state MAC list:

Drug Name	Strength	MAC Price
RAMIPRIL	1.25MG	$1.02
RAMIPRIL	2.5MG	$1.02
RAMIPRIL	5MG	$1.02
RAMIPRIL	10MG	$1.24
GRANISETRON	1MG	$16.54

These additions are made to bring Medical Assistance reimbursement to pharmacists more closely in line with the actual acquisition cost of the drugs listed above. The Department estimates that there will be a state savings of $48,000 for State Fiscal Year 2006 (July 1, 2007 through June 30, 2008).

This notice is published pursuant to *Code of Federal Regulations*, Title 42, section 447.205, which requires publication of a notice when there is a rate change in the methods and standards for setting payment rates for Medical Assistance services.

Written comments and requests for information may be sent to Kristin Young, Pharmacy and Program Manager, Health Care Purchasing and Delivery Systems Division, Health Care Administration, Minnesota Department of Human Services, P.O. Box 64984, St. Paul, Minnesota 55164-0984; **phone:** (651) 431-2504 or **email:** *kristen.c.young@state.mn.us*

Official Notices

Minnesota Department of Labor and Industry

Construction Codes and Licensing Division

REQUEST FOR COMMENTS on Possible Amendment to Rules Governing Manufactured Homes, *Minnesota Rules*, Chapter 1350

Subject of Rules. The Minnesota Department of Labor and Industry's Construction Codes and Licensing Division requests comments on its possible rules and amendments to rules governing manufactured homes. The Department is considering rules and rule amendments that incorporate applicable provisions of the federal government's new manufactured home construction standards, regulations, installation standards, installation programs, and administrative procedures; dispute resolution; and manufactured home installer training and continuing education.

Persons Affected. The amendment to the rules would likely affect manufactured home installers, dealers, manufacturers, consumers, designated building officials, material suppliers, and third party inspection agencies.

Statutory Authority. *Minnesota Statutes*, section 327.33, states in pertinent part:

Subd. 3. **Administration and enforcement rules.** The commissioner [of Labor and Industry] may adopt other rules as may be necessary to administer and enforce sections 327.31 to 327.35. The rules shall, to the extent practicable, be uniform with those adopted by other states. All rules shall be adopted in the manner prescribed by sections 14.001 to 14.69.

Subd. 4. **Installation rules.** The commissioner shall adopt rules governing the installation of manufactured homes, and shall include them in the State Building Code. The rules may include a list of specific safety items to be inspected at the time of installation.

Subd. 5. **Accessory structures rules.** The commissioner shall adopt rules governing the construction and installation of manufactured home accessory structures including, but not limited to, rules relating to the certification of prefabricated manufactured home accessory structure. Upon showing that another state provides for certification of prefabricated manufactured home accessory structures manufactured in compliance with standards at least equal to those established by the commissioner, the commissioner may by rule provide that any structure bearing certification affixed under the authority of that state shall not be required to bear the certification of this state.

Subd. 6. **Authorization as agency.** The commissioner shall apply to the secretary for approval of the commissioner as the administrative agency for the regulation of manufactured homes under the rules of the secretary. The commissioner may make rules for the administration and enforcement of department responsibilities as a state administrative agency including, but not limited to, rules for the handling of citizen's complaints…The commissioner is charged with the adoption, administration, and enforcement of the Manufactured Home Construction and Safety Standards, consistent with rules and regulations promulgated by the United States Department of Housing and Urban Development. The commissioner may adopt the rules, codes, and standards necessary to enforce the standards promulgated under this section. The commissioner is authorized to conduct hearings and presentations of views consistent with regulations adopted by the United States Department of Housing and Urban Development and to adopt rules in order to carry out this function.

Minnesota Statutes, section 327B.05, subd. 1, states in pertinent part, "The commissioner may establish rules pursuant to section 327B.10 further specifying, defining or establishing standards of conduct for manufactured home dealers and manufacturers."

Minnesota Statutes, section 327B.10, states, "The commissioner may promulgate rules and issue orders reasonably necessary to implement and administer the provisions of sections 327B.01 to 327B.12. The commissioner shall adopt rules establishing and approving education programs for manufactured home installers. Each manufactured home installer must satisfactorily complete the continuing education requirements established by the commissioner in rule."

Public Comment. Interested persons or groups may submit comments or information on these possible rules in writing until 4:30 p.m. on Friday, March 28, 2008. An advisory committee has been meeting to comment on the possible rules since January 2003.

Rules Drafts. The Division has not yet prepared a draft of the possible rules amendments and does not anticipate that a draft of the rules amendments will be available before the publication of the proposed rules.

Agency Contact Person. Written comments, questions, requests to receive a draft of the rules when it has been prepared, and requests for more information on these possible rules should be directed to Ms. Carrie Rohling, Department of Labor and Industry, 443 Lafayette

Road North, Third Floor, Saint Paul, Minnesota 55155, or FAX (651) 284-5725. TTY users may call the Department at (651) 297-4198.

Alternative Format. Upon request, this Request for Comments can be made available in an alternative format, such as large print, Braille, or cassette tape. To make such a request, please contact the agency contact person at the address or telephone number listed above.

NOTE: Comments received in response to this notice will not necessarily be included in the formal rulemaking record submitted to the administrative law judge if and when a proceeding to adopt rules is started. The agency is required to submit to the judge only those written comments received in response to the rules after they are proposed. If you submitted comments during the development of the rules and you want to ensure that the Administrative Law Judge reviews the comments, you should resubmit the comments after the rules are formally proposed.

Dated: January 10, 2008

State Grants & Loans

In addition to requests by state agencies for technical/professional services (published in the State Contracts Section), the *State Register* also publishes notices about grants and loans available through any agency or branch of state government. Although some grant and loan programs specifically require printing in a statewide publication such as the *State Register*, there is no requirement for publication in the *State Register* itself. Agencies are encouraged to publish grant and loan notices, and to provide financial estimates as well as sufficient time for interested parties to respond.

Minnesota Department of Commerce

Notice of Availability of Grant Availability for Fiscal Year 2008 Renewable Energy Grant Round

The Minnesota Department of Commerce is requesting proposals for the purpose of fulfilling requirements the Minnesota Legislature established for this Renewable Energy grant program (Laws of Minnesota 2007, Chapter 57, article 2, section 3, subd. 6 to provide competitive, cost share grants to fund renewable energy research in Minnesota.

Work is proposed to start during the month of May 2008.

A Request for Proposals will be available by mail from this office through February 15, 2008. A written request (by direct mail or fax) is required to receive the Request for Proposal. After February 15, 2008, the Request for Proposal must be picked up in person.

The Request for Proposal can be obtained from:

Amy Bicek
Minnesota Department of Commerce
85 Seventh Place E, Suite 500
Saint Paul, MN 55101
Fax: (651) 297-7891
E-mail: *energy.contracts@state.mn.us*

Proposals submitted in response to the Request for Proposals in this advertisement must be received at the address above no later than February 28, 2008 by 4:00 p.m.. Central Standard Time. Late proposals will not be considered. Fax proposals will not be considered.

This request does not obligate the State to complete the work contemplated in this notice. The State reserves the right to cancel this solicitation. All expenses incurred in responding to this notice are solely the responsibility of the responder.

State Grants & Loans

Department of Health

Environmental Health Division

Accepting Project Submissions for the Drinking Water Revolving Fund Project Priority List

The Drinking Water Revolving Fund provides below market rate financing for public water system improvements. The first step toward obtaining a loan is to request a project be placed on the Project Priority List (PPL). Requests must be **received by 4:30 p.m., Friday, May 2, 2008.**

Funding priority is for projects that correct a public health hazard, bring or keep systems in compliance with drinking water standards, and for communities below the median household income. Typical projects are for wells, treatment plants, water towers, and distribution lines. Funding is not for economic expansion or fire protection. Eligibility and ranking requirements are in *Minnesota Rules*, parts 4720.9000 to 4720.9080.

For PPL instructions, a general program overview, and to see an example of a simplified proposal go to:
www.health.state.mn.us/water/dwrf/ - or - Call (651) 201-4697

Minnesota Department of Human Services

Community Partnerships Division, Office of Economic Opportunity

Notice of Request for Proposals to Rehabilitate Facilities for Early Childhood Programs

NOTICE IS HEREBY GIVEN that the Minnesota Department of Human Services is requesting proposals to rehabilitate facilities for programs under *Minnesota Statutes,* section 119A.45, a grant may not exceed $200,000 per program and $500,000 per facility.

Minnesota Statutes 119A.45 provides authorization for grants to state agencies and political subdivisions to rehabilitate facilities for early childhood programs, with priority to programs in counties or municipalities with the highest percentage of children living in poverty. Awards may also be made for crisis nurseries and family visitation centers.

For more information, or to obtain a copy of the Request for Proposal, contact:

Francie Mathes
Department of Human Services
Community Partnerships Division, Office of Economic Opportunity
P.O. Box 64962
444 Lafayette Road North
St. Paul, MN 55155-0962
Phone: (651) 431-3814
Fax: (651) 431-7509
E-mail: *francie.mathes@state.mn.us*

This is the only person designated to answer questions by potential responders regarding this request.

Proposals submitted in response to this Request for Proposals must be received at the address above no later than **4:00 p.m., Central Time, April 1, 2008. Late proposals will not be considered.** Fax or e-mailed proposals will **NOT** be considered.

This request does not obligate the State to complete the work contemplated in this notice. The State reserves the right to cancel this solicitation. All expenses incurred in responding to this notice are solely the responsibility of the responder.

State Contracts

Informal Solicitations: Informal soliciations for professional/technical (consultant) contracts valued at over $5,000 through $50,000, may either be published in the *State Register* or posted on the Department of Administration, Materials Management Division's (MMD) Web site. Interested vendors are encouraged to monitor the P/T Contract Section of the MMD Web site at *www.mmd.admin.state.mn.us* for informal solicitation announcements.

Formal Solicitations: Department of Administration procedures require that formal soliciations (announcements for contracts with an estimated value over $50,000) for professional/technical contracts must be published in the *State Register*. Certain quasi-state agency and Minnesota State College and University institutions are exempt from these requirements.

Requirements: There are no statutes or rules requiring contracts to be advertised for any specific length of time, but the Materials Management Division strongly recommends meeting the following requirements:

$0 - $5000 does not need to be advertised. Contact the Materials Management Division: (651) 296-2600
$5,000 - $25,000 should be advertised in the *State Register* for a period of at least seven calendar days;
$25,000 - $50,000 should be advertised in the *State Register* for a period of at least 14 calendar days; and
anything above $50,000 should be advertised in the *State Register* for a minimum of at least 21 calendar days

Assistance with Contracts

Obtain MORE and FASTER information with a SUBSCRIPTION to the *State Register*. Subscribe and receive LINKS to the *State Register.* Open the *State Register* and click on Bookmarks in the upper right corner. You will also receive ALL the current rules, with an INDEX, and previous years' indices. You also receive a summarized "Contracts & Grants" section to review. Subscriptions cost $180 a year (an $80 savings). Here's what you receive via e-mail:

- **Word Search Capability**
- **LINKS, LINKS, LINKS**
- **Easy Access to *State Register* Archives**
- **Updates to Index to Vol. 31**
- **"Contracts & Grants" Open for Bid**
- **Early delivery, on Friday**
- **E-mailed to you . . . its so easy**
- **Indexes to Vols. 31, 30, 29, 28 and 27**

It's all E-mailed to you, at end-of-day on Friday, instead of waiting for the non-subscriber's issue released on Monday. Contact Cathy Hoekstra, our subscriptions manager, at (651) 297-8777, or **Fax:** (651) 297-8260, or **E-mail:** *cathy.hoekstra@state.mn.us*

Department of Administration

Real Estate Management Division

Notice of State Real Property in Gilbert, Minnesota for Sale

NOTICE IS HEREBY GIVEN that the Department of Administration is offering the real property located at 115 Florida Avenue West, Gilbert, Minnesota, for sale by sealed bid. The property includes a 2 bedroom, 1 bath, one-story house with a 2-car detached garage. The minimum bid is $82,000. To obtain a copy of the complete bid package, visit *www.admin.state.mn.us/recs/sas/sas-psl.html*, send an e-mail to *susan.maki@state.mn.us*, or call (651) 201-2549. Written bids must be received no later than 2:30 p.m. on Thursday, February 14, 2007.

Minnesota State Colleges and Universities

Minneapolis Community and Technical College

Request for Bids for Health Sciences Renovation – Audio Visual RFB

Sealed Bids for: **Minneapolis Community and Technical College**
Health Sciences Renovation – Audio Visual RFB
1301 Hennepin Avenue
Minneapolis, MN 55403

will be received by: **Michael Noble-Olson**
Minneapolis Community and Technical College

1415 Hennepin Avenue, T Building Room T2700
Minneapolis, MN 55403

or by mail to: **1501 Hennepin Avenue**
Minneapolis, MN 55403

Until **1:00 PM, local time, February 28th, 2008** at which time the bids will be opened and publicly read aloud in Room T4150.

Project Scope: In general, the work will include the installation of technology cabling infrastructure and security system. There will also be fire-stopping needs associated with this project.

A **mandatory** pre-bid meeting will be held at 10:00 AM, February 14th, 2008 in Room T0550. The Project consultant and/or College Representatives will review the bidding procedures, Bidding Documents and other conditions with interested Bidders and answer questions.

Bidding documents as prepared by the Project consultant, **Elert & Associates** are on file at the offices of the:

1.) Elert & Associates Technology Consultants.
2.) Following Builders Exchanges: **Minneapolis, & St. Paul**
3.) McGraw Hill Construction Plan Room
4.) Reed Construction Data Plan Room
5.) National Association of Minority Contractors of Upper Midwest
6.) MEDA Minority Contractors Plan Room

Complete sets only of bid forms and Drawings and Specifications for use by Bidders in submitting a bid may be obtained at the following address:

Tony Chojnowski, RCDD
Elert & Associates Technology Consultants
140 3rd Street South
Stillwater, MN 55082
Phone: (651) 705-1228

A deposit of $50.00 is required for each set.

Prospective Bidders requesting that Bidding Documents (complete sets only) be mailed to them, may send a separate non-refundable payment (check made out to the Consultant) for [$30.00] per set for shipping & handling (in addition to the $50.00 deposit) to the Architect. Such deposits and payments may be sent prior to **September 12th, 2007** Documents will be sent to street addresses only (P.O. Boxes not acceptable).

Each bid which totals over $15,000.00 shall be accompanied by a certified check, payable to **Minnesota State Colleges and Universities,** in the sum of not less than 5% of the total base bid; or a corporate surety bond of a surety company duly authorized to do business in the state of Minnesota in the same amount; which is submitted as bid security, conditioned upon the Bidder entering into a contract with Minnesota State Colleges and Universities in accordance with the terms of the bid.

Minnesota State Colleges and Universities (MnSCU)

Office of the Chancellor, Public Affairs

Request for Proposal: Development of Integrated Marketing Communications Campaign

The Minnesota State Colleges and Universities system is requesting proposals from qualified firms to develop an integrated marketing communications campaign aimed at state leaders, opinion and decision-makers to build awareness and appreciation of the beneficial value and scope of positive contributions the system brings to Minnesota's economy and quality of life.

The 2008 integrated marketing communications campaign is being planned as Phase One of a three-year plan. Proposers should present rationale and specific strategies for Phase One as well as a cohesive continued vision for a three-year campaign.

Specifications are available by visiting the website*: www.mnscu.edu/marketingrfp* or by contacting Paul Berger, director of marketing, Minnesota State Colleges and Universities, Wells Fargo Place, 30 7th St. E., Suite 350, St. Paul, Minnesota 55101; **phone:** (651) 296-9650; or **e-mail:** *paul.berger@so.mnscu.edu* . Sealed proposals must be received by Friday, February 22, 2008, noon CST. Other department personnel are NOT allowed to discuss the Request for Proposal with anyone, including responders, before the proposal submission deadline.

This request does not obligate Minnesota State Colleges and Universities to complete the proposed project, and the system reserves the right to cancel this solicitation if it is considered to be in its best interest.

The Minnesota State Colleges and Universities system is an Equal Opportunity employer and educator.

Minnesota State Colleges & Universities (MnSCU)

Notice of Request for Proposal for External Auditing Services of Six Colleges and Universities for Fiscal Years 2008 – 2010

NOTICE IS HEREBY GIVEN that the Minnesota State Colleges and Universities is seeking to acquire individual audits of six colleges and universities from an independent accounting firm duly licensed to practice in the State of Minnesota, pursuant to *Minnesota Statutes* Section 326.192, or a similarly qualified government agency.

Proposals are being sought from parties interested in providing financial statement audits for one or more of the following six colleges and universities on an annual basis for the three-year period from July 1, 2008 to June 30, 2010. The six colleges and universities are:

- Bemidji State University
- Minnesota State Community & Technical College
- Minnesota State University, Mankato
- Minnesota State University Moorhead
- St. Cloud State University
- Winona State University

This request for proposal does not obligate the Minnesota State Colleges and Universities to complete the proposed project, and the Minnesota State Colleges and Universities reserves the right to cancel the solicitation if it is considered to be in its best interest.

Responders may propose additional tasks, activities or alternative suggestions if they will substantially improve the results of the project. These items shall be separated from the required items on the cost proposal.

All proposals must be sent to and received by:

John Asmussen, Executive Director
Office of Internal Auditing
Minnesota State Colleges and Universities
350 Wells Fargo Place
30 East 7th Street
St. Paul, Minnesota 55101-4946

Not later than **4 PM on Thursday, February 28, 2007**, as indicated by the date and time indicated on each response package by the Minnesota State Colleges and Universities mail room, if packages are delivered by U.S. Mail, or the Minnesota State Colleges and Universities reception desk (3rd Floor, Wells Fargo Place), if packages are hand-delivered or delivered by courier.

Late proposals will not be considered. All costs incurred in responding to this RFP will be borne by the responder.

Submit ten copies of the proposal. Proposals are to be sealed in mailing envelopes or packages with the responder's name and address clearly written on the outside. Each copy of the proposal must be signed, in ink, by an authorized member of the firm. Prices and terms of the proposal as stated must be valid for the length of any resulting contract.

Contacts:

A full Request for Proposal is available on a public web site at *www.internalauditing.mnscu.edu/RFP/* or by contacting Darla Senn (*darla.senn@so.mnscu.edu*).

Other questions should be directed to the following person:

John Asmussen, Executive Director of Internal Auditing
Telephone: (651) 296-2430
E-mail: *john.asmussen@so.mnscu.edu*

Questions and answers that will be informative to all prospective bidders will be posted on the same web site. Other personnel are NOT allowed to discuss the request for proposal with anyone, including responders, before the proposal submission deadline.

Minnesota State Colleges and Universities (MnSCU)

Winona State University

Advertisement for Request for Proposal and Sealed Bids for Owner's Representative Services for Memorial Hall Addition and Renovation Project

The purpose of this Request for Proposal (RFP) is to evaluate and select an Owner's Representative (OR) to assist the Owner in the performance of its obligations and enforcement of its rights during the design and/or construction of the **Memorial Hall Addition and Renovation Project** located at **Winona State University, Winona**, Minnesota. The Owner's Representative shall work with the Owner's appointed Project Manager, the Owner's Office of the Chancellor Facilities Unit, the Architect/Engineer (A/E) design team, related consultants and the construction contractor(s) to administer the design and/or construction contract(s) on behalf of the Owner to assure that the Project is designed and constructed in accordance with the MnSCU Design Standards and the Contract Documents and that the Project is completed on schedule, on budget and to a level of quality commensurate with the Owner's requirements.

Memorial Hall was originally constructed in 1953, with a major addition in 1972. Some renovation of small areas has occurred and in the summer of 2007, the Memorial Hall Locker Room and HVAC System Improvement Project was completed.

This project will support Winona State University's "Learning in the 21st Century" initiative and involves new construction of an Integrated Wellness Complex at Memorial Hall. The project will:

- Add new construction of 78,000 square feet onto Memorial Hall for fitness and strength training facilities, an indoor track and gymnasiums, learning labs and classrooms and faculty and administrative offices.
- Incorporate a health services clinic, health education and resource center and counseling center.
- Integrate the academic departments of Health, Exercise and Rehabilitative Science (HERS) and Physical Education & Recreation (PER).
- Reduce the WSU maintenance backlog by $400,000.
- Remodel vacated space of approximately 4,860 GSF in Gildemeister Hall.
- State of Minnesota is funding only one-half of the overall project cost. The remainder will be financed with private gifts and student-supported revenue fund bonds

The existing facility will be expanded by remodeling and new construction. The new construction will include academic spaces, student resource and support areas, wellness space, building lobbies, restrooms, mechanical and electrical rooms, and vertical circulation. Minor remodeling will occur in existing areas of Memorial Hall and Gildemeister Hall.

Space Summary:	Memorial Hall	78,000 GSF
	Vacated Space Remodel	4,860 GSF

Anticipated Project Cost:	$19,274,000.00	
Anticipated Substantial Completion and Occupancy:	Memorial Hall	April 2010
	Vacated Space Remodel	April 2010

A **Project Information Meeting** will be held **February 11, 2008, 1:00 p.m., Winona State University, Facilities Services Building, 175 West Mark Street, 2nd Floor, Conference Room 202, Winona, Minnesota.**

Proposals shall be submitted in a sealed envelope labeled "**Proposal: Owner's Rep for Memorial Hall Addition and Renovation Project**" and must be received by **1:00 p.m. on February 19, 2008**, at: Steve Ronkowski, Facilities Coordinator, Winona State University, Facilities Conference Room 202, 175 West Mark Street, Winona, Minnesota 55987.

Proposals received after this time and date will be rejected and returned unopened. Proposals may be delivered in person, by U.S. Mail or by other couriers. Faxed or electronic mail proposals are not acceptable.

Project Schedule	
Request for Proposal Release Date:	January 22, 2008
Project Information Meeting:	February 11, 2008, 1:00 p.m.
RFP Response Submission Deadline:	February 19, 2008, 1:00 p.m.
Evaluation of Submitted Proposals by Owner Evaluation Committee:	February 27, 2008
Notification of Short-listed Finalists for Interviews:	February 29, 2008
Interviews of Short-listed Finalists:	March 13, 2008
Anticipated Owner's Rep Contract Award Date:	March 17, 2008

Project Pre-Design Information

Holabird & Root completed a Pre-Design Report for the Memorial Hall Addition & Renovation Project at Winona State University. A copy of this document is available for review at the University's Facilities Office. To schedule a review of this report, contact Nancy Nelton at (507) 457-5052. Copies of the Pre-Design Report document will be made available only to teams that are short-listed.

Project Contact

For further information or to request a paper copy of the Request for Proposals, please contact:

Steve Ronkowski
Facilities Coordinator
Winona State University
175 West Mark Street
Winona, Minnesota 55987
Phone: (507) 457-5099
Fax: (507) 457-2624
E-mail: *sronkowski@winona.edu*

Department of Education

Notice of Availability of Contract for Afterschool Grants Evaluation Project

The Minnesota Department of Education is requesting proposals for the purpose of selecting a contractor to direct, analyze and report the results of evaluation of two of the Department's afterschool programs, U.S. Department of Education 21st Century Community Learning Centers and the Minnesota Afterschool Community Learning Programs.

Work is proposed to start early April, 2008.

State Contracts

A written request (by email, direct mail or fax) is required to receive the Request for Proposal.

The Request for Proposal can be obtained from:

JulAnn Meech
Minnesota Department of Education
1500 Highway 36 West
Roseville, MN 55113
E-mail: *julann.meech@state.mn.us*

Proposals submitted in response to the Request for Proposals in this advertisement must be received at the address above no later than 2:30 p.m., Central Standard Time, February 19, 2008. **Late proposals will not be considered.** Faxed or e-mailed proposals will **NOT** be considered.

This request does not obligate the State to complete the work contemplated in this notice. The State reserves the right to cancel this solicitation. All expenses incurred in responding to this notice are solely the responsibility of the responder.

Department of Health

Notice of Availability of Contract for Conference Management

The Minnesota Department of Health is requesting proposals for the purpose of seeking professional assistance with a full range of services required to plan, administer, and assist with the implementation of the 2008, "Ready to Respond" Preparedness Conference, scheduled May 6-7, 2008 at a Twin Cities Location, in coordination with the Minnesota Department of Health and other outside partners.

Work is proposed to start after February 6, 2008.

A Request for Proposals will be available by mail from this office through January 28, 2008.

A written request (by direct mail or fax) is required to receive the Request for Proposal. January 28, 2008, the Request for Proposal must be picked up in person.

The Request for Proposal can be obtained from:

Tina Firkus
Office of Emergency Preparedness
Freeman Building
625 Robert Street N
P.O. Box 64975
St. Paul, MN 55164-0975
Fax: (651) 201-5720

Proposals submitted in response to the Request for Proposals in this advertisement must be received at the address above no later than February 4, 2008. **Late proposals will not be considered.** Fax or e-mailed proposals will **NOT** be considered.

This request does not obligate the State to complete the work contemplated in this notice. The State reserves the right to cancel this solicitation. All expenses incurred in responding to this notice are solely the responsibility of the responder.

Minnesota Historical Society

Notice of Request for Bids for Printing of the Society's All-Sites Travel Guide and Cover/Wrap Brochure, and Final Assembly of the Guide inside the Brochure

The Minnesota Historical Society is seeking bids from qualified firms for the following three work products: 1) the printing of the Society's annual All-Sites Travel Guide; 2) the printing of a cover/wrap brochure; and 3) the final assembly of the Guide inside the brochure. The Society is requesting that bidders submit a separate cost estimate for each component as well as a total price.

The Request for Bids is available by calling or writing Mary Green-Toussaint, Contracting & Purchasing Coordinator, Minnesota Historical Society, 345 Kellogg Boulevard West, Saint Paul, MN 55102. Telephone is (651) 259-3175; e-mail is: *mary.green-toussaint@mnhs.org*.

Bids must be received no later that 2:00 p.m., Local Time, Thursday, February 14, 2008. A public bid opening will be conducted at that time. No late bids will be accepted.

Dated: January 28, 2008

Department of Transportation (Mn/DOT)

Engineering Services Division

Notice of Potential Availability of Contracting Opportunities for a Variety of Highway Related Technical Activities ("Consultant Pre-Qualification Program")

This document is available in alternative formats for persons with disabilities by calling Juanita Voigt at (651) 366-4774 for persons who are hearing or speech impaired by calling Minnesota Relay Service at (800) 627-3529.

Mn/DOT, worked in conjunction with the Consultant Reform Committee, the American Council of Engineering Companies of Minnesota (ACEC/MN), and the Department of Administration, to develop the Consultant Pre-Qualification Program as a new method of consultant selection. The ultimate goal of the Pre-Qualification Program is to streamline the process of contracting for highway related professional/technical services. Mn/DOT awards most of its consultant contracts for highway-related technical activities using this method, however, Mn/DOT also reserves the right to use Request for Proposal (RFP) or other selection processes for particular projects. Nothing in this solicitation requires Mn/DOT to use the Consultant Pre-Qualification Program.

Mn/DOT is currently requesting applications from consultants. Refer to Mn/DOT's Consultant Services web site, indicated below, to see which highway related professional/technical services are available for application. Applications are accepted on a continual basis. All expenses are incurred in responding to this notice will be borne by the responder. Response to this notice becomes public information under the Minnesota Government Data Practices.

Consultant Pre-Qualification Program information, application requirements and applications forms are available on Mn/DOT's Consultant Services web site at: *http://www.dot.state.mn.us/consult.*

Send completed application material to:

Juanita Voigt
Consultant Services
Office of Technical Support
Minnesota Department of Transportation
395 John Ireland Blvd. Mail Stop 680
St. Paul, Minnesota 55155

Note: DUE DATE: APPLICATION MATERIAL WILL BE ACCEPTED ON A CONTINUAL BASIS.

State Contracts

Department of Transportation (Mn/DOT)

Engineering Services Division

Notice Concerning Professional/Technical Contract Opportunities

NOTICE TO ALL: The Minnesota Department of Transportation (Mn/DOT) is now placing additional public notices for professional/technical contract opportunities on Mn/DOT's Consultant Services **website** at: *www.dot.state.mn.us/consult.*

New public notices may be added to the website on a daily basis and be available for the time period as indicated within the public notice.

Department of Transportation

Office of Transit

Request for Proposal (RFP): Greater Minnesota Public Transportation Plan Update

Notice of availability of Contract for consultant services to update its 2001 Greater Minnesota Public Transportation Plan. The updated Plan will be a 20-year strategic plan for preserving current public transportation systems while improving mobility for the general public with emphasis on elderly, low income, disabled and commuter consumer groups. This request does not obligate the State of Minnesota Department of Transportation to complete the work contemplated in this notice, and the department reserves the right to cancel this request for proposal. All expenses incurred in responding to this notice shall be borne by the responder.

The Minnesota Department of Transportation is requesting proposals to provide consultant services for the following scope of work:

A. Public Involvement

Responder will follow a public involvement strategy that ensures a broad representation of State citizens and stakeholders and ensures coordination with the Minnesota Statewide Transportation Plan update and development of Met Council's 2030 Master Transit Plan (see "Current Planning Efforts Related to this Project" Section). Responder will participate in a minimum of:

- six steering committee meetings
- technical workgroup meetings as needed
- up to four outreach meetings in Greater Minnesota in conjunction with the 2003 Statewide Transportation Plan Update.
- The Plan must provide methods for reaching the public, with an emphasis on four major Greater Minnesota consumer groups: seniors, persons with disabilities, low income persons and commuters. As part of the outreach efforts, Responder shall conduct Regional Open House/Stakeholder meetings

Responder will identify a public involvement strategy for minority populations' (some of whom may have limited English proficiency) participation in the planning process, by incorporating visualization or other proven techniques.

B. Major Trends and Implications

Responder will supplement Mn/DOT's analysis of statewide demographics, socio-economic conditions, characteristics and travel trends with emphasis on four identified consumer groups: seniors, persons with disabilities, low income persons and commuters. Population characteristics will include the location of consumer groups. Population densities and their relationship to potential ridership will be included. Work trip data will also be included to help determine commuter patterns and the potential for work service trips. Responder will identify the benefits transit has upon energy consumption, the environment, personal health, economic development, and local and rural mobility needs of transportation dependent persons.

The Responder will describe any proposed development of transit options in Greater Minnesota including, but not limited to vanpools, carpools and vehicle sharing, volunteers, intercity bus, commuter bus, commuter rail, passenger rail, travel demand management (TDM) and the concept of mobility management as it applies to the coordination between public transit systems and other providers of passenger transportation. Responder will also explore new technologies that may be incorporated into the implementation of bus and rail services in Greater Minnesota. Responder will incorporate the planning work conducted under the Met Council's 2030 Transit Master Plan for those counties surrounding the seven-county metro area.

C. Current Service Evaluation

Subtask 1: Peer Group Analysis - Responder will conduct a peer group analysis of Greater Minnesota public transit systems. Systems will be grouped into appropriate peer categories based on those identified in the 2001 Greater Minnesota Public Transportation Plan by organizational and operational characteristics. Peer groups will be analyzed in relation to others in respective categories both in Minnesota and other states where applicable.

Subtask 2: Trend Analysis - Responder will conduct a trend analysis, by peer group, for the last five years. The analysis will include ridership, ridership per revenue mile and hour; service provided in terms of miles, hours/days of service, service areas, vehicles; operating budgets; operating revenue; operating revenue per hour and mile, farebox revenue; and operating cost per mile and hour. This data will provide information relating to how public transit in Greater Minnesota has changed over the past five years, and how it compares to general transit industry data.

D. Future Service Level Evaluation

Responder will describe and quantify future transit needs in Greater Minnesota. The Responder will propose, at a minimum, three needs assessment methodologies for setting the transit level of service (LOS) goal for Greater Minnesota. The Responder must consider the per capita model used in the 2001 Greater Minnesota Public Transportation Plan as one of the three methodologies.

The Responder, in consultation with Mn/DOT, will recommend a transit service level to be developed throughout Greater Minnesota. To further development of the service level, methods will be identified for improving the interconnectivity between public transit systems and connections with other transit service delivery systems including vanpools, rideshare, volunteers, intercity bus, commuter bus, commuter rail, passenger rail and social service transit providers.
Responder will recommend an analytical process for assessing regional benefits and burdens of transportation system investments for different consumer groups.

E. Vision/Goals/Strategic Directions

Responder will use a future scenario to describe what public transit will be like. The scenario will include how public transit might anticipate and react to relevant issues that evolve in the future.

The Responder will assist Mn/DOT in expanding on the goals and strategic directions contained in the 2001 Greater Minnesota Public Transportation Plan. Updated goals and strategic directions should reflect the issue areas articulated in Mn/DOT's 2008 Statewide Transportation Plan update:

Responder will assist Mn/DOT in developing appropriate performance measures/targets for strategic directions. Responder will also update performance measures contained in the 2003 Mn/DOT Statewide Transportation Plan and performance guidelines contained in the 2001 Greater Minnesota Public Transportation Plan.

F. Financial Summary

Responder, in consultation with Mn/DOT, will provide a minimum of three future funding scenarios for a twenty-year planning horizon, based on the future service level evaluation. Costs for both operations and capital equipment and infrastructure will be identified. The financial plan will include developing unit costs for various transit service delivery methods.

G. Executive Summary

Responder will prepare an executive summary, no longer than 6 pages in length that presents an overview of the planning process and describes the results contained in the Greater Minnesota Public Transportation Plan.

RFP's are available by mail, email or in person.

Please submit in writing, a request for the RFP: Greater Minnesota Public Transportation Plan Update. Request for the RFP may be mailed, e-mailed or faxed to:

Diane Contreras
Administrative Assistant
Minnesota Department of Transportation

Office Of Transit, 3rd Floor South
395 John Ireland Boulevard, Mail Stop 430
St Paul, Minnesota 55155
Fax : (651) 366-4192
E-mail: *Diane.Contreras@dot.state.mn.us*

Note: PROPOSALS WILL BE DUE ON FEBRUARY 25, 2008 AT 3:00 p.m. CENTRAL STANDARD TIME.

Non-State Bids, Contracts & Grants

The *State Register* also serves as a central marketplace for contracts let out on bid by the public sector. The *State Register* meets state and federal guidelines for statewide circulation of public notices. Any tax-supported institution or government jurisdiction may advertise contracts and requests for proposals from the private sector. It is recommended that contracts and RFPs include the following: 1) name of contact person; 2) institution name, address, and telephone number; 3) brief description of commodity, project or tasks; 4) cost estimate; and 5) final submission date of completed contract proposal. Allow at least three weeks from publication date (four weeks from the date article is submitted for publication). Surveys show that subscribers are interested in hearing about contracts for estimates as low as $1,000. Contact editor for futher details.

Metropolitan Council

Notice of Invitation for Bids (IFB) for the Purchase of a Closed-Circuit Television Inspection Vehicle

Reference Number 07P160

The Metropolitan Council is requesting bids for the purchase of a Closed-Circuit Color Television Inspection System in a customized four-wheel drive van.

Issue Invitation for Bids	**January 28, 2008**
Bids Due	**February 14, 2008**
Award Contract	**March 2008**

All firms interested in submitting bids for this contract and desiring to receive an IFB package are invited to make a request by e-mail, fax, mail or phone to:

Sunny Jo Emerson
Senior Administrative Assistant, Contracts and Procurement Unit
Metropolitan Council
390 Robert Street North
St. Paul, MN 55101 -1801
Phone: (651) 602-1499
Fax: (651) 602-1083
E-mail: *sunnyjo.emerson@metc.state.mn.us*

Metropolitan Council

Notice of Request for Proposals (RFP) for Actuarial Assessment

Contract 08P016

The Metropolitan Council is requesting proposals for the provision of actuarial assessment of post-employment health liability in accordance with generally accepted accounting principles.

Issue Request for Proposals	**January 22, 2008**
Receive Proposals	**February 12, 2008**
Contract negotiated, executed, NTP	**March 12, 2008**

All firms interested in being considered for this project and desiring to receive a RFP package are invited to submit a Letter of Interest to:

Miriam Lopez-Rieth, Contracts and Procurement Unit
Metropolitan Council
390 North Robert Street
St. Paul, MN 55101
Phone: (651) 602-1095
FAX: (651) 602-1183
E-mail: *Miriam.Lopez-Rieth@metc.state.mn.us*

Inquiries regarding technical aspects of the project should be directed to Gordon Backlund 651-602-1801.

Metropolitan Council

Notice of Request for Proposals (RFP) for Voluntary Benefits

Contract 07P076

The Metropolitan Council is requesting proposals for vendor(s) for voluntary benefits (offered to employees at full cost). These benefits will include STD and LTD, Accident and Sickness, Vision, and Auto and Homeowner/Renter plans. The term of the contract will be three years.

A tentative schedule for the project is as follows:

Issue Request for Proposals	**January 22, 2008**
Receive Proposals	**February 19, 2008**
Contract negotiated, executed, NTP	**March 31, 2008**

All firms interested in being considered for this project and desiring to receive an RFP package are invited to submit a Letter of Interest to:

Miriam Lopez-Rieth, Contracts and Procurement Unit
Metropolitan Council
390 North Robert Street
St. Paul, MN 55101
Phone: (651) 602-1095
FAX: (651) 602-1183
E-mail: *Miriam.Lopez-Rieth@metc.state.mn.us*

Inquiries regarding technical aspects of the project should be directed to Gordon Backlund (651) 602-1801.

Non-State Bids, Contracts & Grants

Minnehaha Creek Watershed District

Solicitation of Bids for Installation of Granite Rock Riprap Project on Lake Minnetonka Shoreline

NOTICE IS HEREBY GIVEN that the Minnehaha Creek Watershed District (MCWD) is soliciting bids for the installation of 2,200 lineal feet of machine placed, granite rock riprap on Lake Minnetonka Shoreline. The project is located on the south side of Big Island, Orono MN. Work shall begin on or after February 15, 2008. Work shall be complete no later then September 30, 2008.

Sealed Bid Proposals for the furnishing of all labor, materials and all other items necessary to complete the work will be received by Minnehaha Creek Watershed District at its office, 18202 Minnetonka Boulevard, Deephaven, MN until 12:00 PM (Noon), January 31, 2008. Bid submittals must be clearly labeled "MCWD BIG ISLAND RIPRAP Bid Package" on the outside of the submittal package. All communications relative to this project should be addressed to the Project Manager prior to opening of the Bid. Minnehaha Creek Watershed District: Attention Renae Clark, **e-mail:** *rclark@minnehahacreek.org* or **phone:** (952) 471-0590.

Contractors desiring a copy of the instructions to bidders, plans, specifications and proposal forms must obtain them from the office of Minnehaha Creek Watershed District, upon the payment of a $10.00 non-refundable fee for each bid package.

Each bid proposal shall be submitted on forms furnished for that purpose. Each bid proposal shall be accompanied by a "Bid Security" in the form of a certified or cashier's check made payable to Minnehaha Creek Watershed District ("owner") in an amount not less than five percent (5%) of the total bid, or a surety bond in the same amount, running to the Owner, with a surety company duly authorized to do business in the state of Minnesota, such Bid Security to be a guarantee that the bidder, if awarded a contract, will enter into a contract with Minnehaha Creek Watershed District; and the amount of the certified check will be retained or the bond enforced by the Owner in case the bidder fails to do so. The Owner will retain the deposits for the three lowest bidders until the contract has been awarded and executed but not longer than sixty (60) days. No bid may be withdrawn for a period of sixty (60) days following the bid opening.

The bid of the lowest responsible bidder is intended to be accepted on or before the expiration of sixty (60) days after the date of the opening of bids. The Owner, however, reserves the right to reject any or all bids and to wave any minor irregularities, informalities or discrepancies, and further reserves the right to award the contract in the best interest of Minnehaha Creek Watershed District.

Paul Bunyan Scenic Byway Association

Notice of Request for Proposals for a Director of Development and Implementation of a Multi-year Organizational Sustainability Plan

The Paul Bunyan Scenic Byway Association is seeking proposals to lead the plan development and first year implementation of a multi-year plan to incrementally attain organizational sustainability. The successful bidder will lead the development of and assist in the drafting of the plan, coordinate the project and participate regularly within the fourteen jurisdictions served by the fifty four mile Paul Bunyan Scenic Byway in northern Crow Wing County and the east central corner of Cass County in central Minnesota. The anticipated inception date for this contract is April 10, 2008.

Interested parties must possess strong organizational and writing skills, and presentation experience with small and large audiences. Related experience seeking and securing grant opportunities and partnership development in Central Minnesota is desirable.

Selection process timeline:

Proposals due	February 25, 2008
Completed review of proposals received	March 17, 2008
Interviews	March 18-25, 2008
Recommended selection completed	March 31, 2008
Full board approval	April 9, 2008
Contractor begins work	April 10, 2008

Contract work for year 1 will be funded through a $31,250 FHWA National Scenic Byways Program grant and the Paul Bunyan Scenic Byway Association. Fiscal agent services are provided through Crow Wing County.

Detailed specifications and submission requirements are available by contacting:

Lynn Scharenbroich, chairperson,
Paul Bunyan Scenic Byway Association
PO Box 401
Pequot Lakes, MN 56472
Phone: (218) 543-4714
E-mail: *info@paulbunyanscenicbyway.org*

Complete proposals must be returned to 10732 County Road 16, Pequot Lakes, MN 56472 by 4:00pm CST, Monday, February 25, 2008.

University of Minnesota
Subscribe to Bid Information Service (BIS)

The University of Minnesota offers 24 hour/day, 7day/week access to all Request for Bids/Proposals through its web-based Bid Information Service (BIS). Subscriptions to BIS are free. Visit our website at *bidinfo.umn.edu* or call the BIS Coordinator at (612) 625-5534.

Request for Bids/Proposals are also available to the public each business day from 8:00 a.m. to 4:30 p.m. in the Purchasing Services lobby, Suite 560, 1300 S. 2nd Street, Minneapolis, Minnesota 55454.

Admin Minnesota
DEPARTMENT OF ADMINISTRATION

660 Olive Street • St. Paul, Minnesota 55155
Metro Area 651-297-3000; FAX 651-297-8260
Toll Free 1-800-657-3757
Web Site: *http://www.comm.media.state.mn.us*
Metro Area 651-282-5077 Greater MN 1-800-657-3706

Periodicals
U.S. Postage
Paid
Permit No.
326630
St. Paul, MN

Please notify us of any address changes so that we can continue to give you our best service. Include your old mailing label to speed your service.

Printed on recycled paper
20% post-consumer waste

TO ORDER:

Complete attached order blank. Please include sales tax. Include either your VISA/MasterCard, American Express or Discover credit card number with the expiration date, or a check/money order made out to the State of Minnesota. Orders by phone are accepted when purchasing with your credit card. Please include a phone number where you can be reached during the day in case we have questions about your order.

PREPAYMENT REQUIRED.

Merchandise may be returned if it is in resalable condition.

NOTE:

State Register and other subscriptions do not require sales tax or postage and handling fees.

Shipping Charges

Subtotal	Add:
Up to $25.00	$3.00
$25.01 - $50.00	$5.00
$50.01 - $100.00	$7.00
$100.01 - $1,000.00	$10.00


Prices subject to change without notice.
Please allow about 6 weeks for delivery.
In a hurry? Stop by our Bookstore.
Bookstore hours: 8:00-5:00 Monday-Friday

For Your Convenience, photocopy this order blank

Code No.	Quantity	Description	Item Price	Total

Name or Company			**Subtotal**	
Attention			6½% tax MN residents 7% St. Paul residents	
Address				
City	State	Zip	Add Shipping Charges from chart at left.	
American Express/VISA/MasterCard/Discover No.			**TOTAL**	
Signature	Expiration Date	Telephone (During Day)		

If tax exempt, please provide ES number or send completed exemption form.

Source Code SR007