

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS

FOR THE MINNESOTA POLLUTION CONTROL AGENCY

In the Matter of Proposed
Permanent Rules Relating to
Individual Sewage Treatment
Systems, Minn. Rule Chapters
4625, 4658, 7077, 7080, and
9400.

**REPORT OF THE
ADMINISTRATIVE LAW JUDGE**

The above-entitled matter came on for hearing before Administrative Law Judge Steve M. Mihalchick at 1:00 p.m. on April 19, 1999 in New Main L-104 at Metropolitan State University, 700 East Seventh Street, Saint Paul, Minnesota. An evening hearing was also held on the same date. The hearing continued until all interested persons had been heard.

The hearing was open to participation through video-conference equipment to a number of sites in Minnesota. Remote hearing sites were in the MPCA Office, 704 Government Service Center, 320 West Second Street, Duluth; the Mississippi Horizon School (old Technical College), 300 Quince Street, Brainerd; the University of Minnesota – Morris Campus, 600 East Fourth Street, Humanities Fine Arts Building, room 7, Morris; Bemidji State University, 1500 Birchmont Drive Northeast, Hagg-Sauer Room (248B), Bemidji; and at South Central Technical College, 1920 Lee Boulevard, Room E-130, North Mankato.

This Report is part of a rulemaking proceeding held pursuant to Minn. Stat. §§ 14.131 to 14.20, to hear public comment, to determine whether the Minnesota Pollution Control Agency (MPCA) has fulfilled all relevant substantive and procedural requirements of law applicable to the adoption of the rules, whether the proposed rules are needed and reasonable and whether or not modifications to the rules proposed by the MPCA after initial publication are substantially different.

Dwight S. Wagenius, Assistant Attorney General, Suite 900, NCL Tower, 445 Minnesota Street, St. Paul, Minnesota 55101, appeared on behalf of the MPCA at the hearing. The agency hearing panel consisted of Lori Frekot, P.E., and Mark Wespetal, P.S.S., both to the MPCA's Policy and Planning Division.

Approximately twenty-five persons attended the afternoon hearing in Saint Paul. No one seeking to testify attended the evening hearing. Thirteen persons signed the hearing register in Saint Paul. Twenty-eight persons signed the hearing registers at the remote locations. The hearing continued until all interested persons, groups or associations had an opportunity to be heard concerning the adoption of these rules.

The record remained open for the submission of written comments for twenty calendar days following the hearing, to May 10, 1999. Pursuant to Minn. Stat. § 14.15, subd. 1, five working days were allowed for the filing of responsive comments. At the close of business on May 17, 1999, the rulemaking record closed for all purposes. The Administrative Law Judge received thirteen written comments from interested persons during the comment period. The MPCA submitted written comments responding to matters discussed at the hearings and proposing modifications to the rules.

NOTICE

This Report must be available for review to all affected individuals upon request for at least five working days before the agency takes any further action on the rule(s). The agency may then adopt a final rule or modify or withdraw its proposed rule. If the MPCA makes changes in the rule other than those recommended in this report, it must submit the rule with the complete hearing record to the Chief Administrative Law Judge for a review of the changes prior to final adoption. Upon adoption of a final rule, the agency must submit it to the Revisor of Statutes for a review of the form of the rule. The agency must also give notice to all persons who requested to be informed when the rule is adopted and filed with the Secretary of State.

Based upon all the testimony, exhibits, and written comments, the Administrative Law Judge makes the following:

FINDINGS OF FACT

Procedural Requirements

1. On January 21, 1999, the MPCA requested the assignment of an Administrative Law Judge for the proposed rulemaking and filed the following documents with the Chief Administrative Law Judge:

- (a) a copy of the proposed rules certified by the Revisor of Statutes;
- (b) a Dual Notice of Hearing under Minn. Stat. § 14.22, subd. 2, proposed to be issued; and
- (c) a draft of the Statement of Need and Reasonableness (SONAR).

2. On February 23 and 24, 1999, the MPCA mailed the Dual Notice of Hearing to all persons and associations who had registered their names with the MPCA for the purpose of receiving such notice. The MPCA also mailed notice on the same dates to the persons and organizations that the MPCA believed would be interested in the proposed rules. The recipients included Individual Sewage Treatment System Advisory Committee, all persons registered in the ISTS program, over fifty legislators and legislative staff, numerous municipalities and county governments, other state agencies and boards, contractors, business associations, educational institutions, individuals, and Senate and House of Representatives environment committees. The Department

published notice in newspapers with state-wide circulation and newspapers with circulation within identified communities of color. The MPCA posted the Notice of Hearing and proposed rules on the Internet at <http://www.pca.state.mn.us/news/publicnotice/rule-2899.html>.

3. On March 1, 1999, the Dual Notice of Hearing was published at 23 *State Register* 1758. The proposed rules were not published pursuant to Minn. Stat. § 14.14, subd. 1a. The proposed rules were published on the MPCA website at <http://www.pca.state.mn.us/news/publicnotice/index.html> and directions to obtain free copies of the rule were included in the Dual Notice.

4. On April 5, 1999, the MPCA published notice at 23 *State Register* 1927 of the additional hearing sites in Duluth, Brainerd, and Morris, Minnesota. The information on additional hearing locations was published on the Internet at <http://www.pca.state.mn.us/news/publicnotice/pn-d4599.html>.

5. At the hearing in this matter, the Department filed the following documents¹ with the Administrative Law Judge:

- a. Request for Comments on Planned Amendment to Rule Governing Individual Sewage Treatment Systems as published at 22 *State Register* 509, September 22, 1997 (Exhibit 1; SONAR Exhibit 2);
- b. Certificate of Mailing the Notice of Request for Comments to all persons, associations, and other interested groups who have requested to receive notice of the proposed adoption of rules by the MPCA and to those who received discretionary notice (Exhibit 6; SONAR Exhibit 2);
- c. the comments received in response to the MPCA's Request for Comments (SONAR Exhibits 3a-v);
- d. the Notice of Hearing as mailed (Exhibit 5);
- e. the authorization from Chief Administrative Law Judge Kenneth Nickolai to omit the text of the proposed rule from the notice of hearing as published under the standards of Minn. Stat. § 14.14, subd. 1a (b) (Exhibit 9);
- f. the Notice of Hearing as published in 23 *State Register* 1756, on March 1, 1999 (Exhibit 5);
- g. the proposed rules, with the approval of the Revisor of Statutes (Exhibit 2);
- h. the Statement of Need and Reasonableness (SONAR)(Exhibit 3);

¹ Many more documents were filed at the hearing. Those documents recounted here are of particular procedural significance.

- i. the certificate that the list of persons, associations, and other interested groups who have requested to receive notice of the proposed adoption of rules by the MPCA is accurate and complete (Exhibit 6);
- j. the affidavit of mailing the Notice of Hearing to all persons, associations, and other interested groups who have requested to receive notice of the proposed adoption of rules by the MPCA and those receiving discretionary notice (Exhibit 6); and
- k. the comments received in response to the Department's Notice of Hearing (Exhibit 8).

ISTS Rules Development Process.

6. In response to the legislative requirement to adopt rules on professional licensure of persons engaging in various ISTS functions and administration of ISTS regulations by local governmental units (LGUs), the MPCA first solicited outside opinion on ISTS rulemaking in 1997.² Six regional fact-finding meetings were held throughout the State. Information about the proposed rules was presented to ISTS professionals at training workshops and their responses were solicited.³ The information was transformed into rule language and discussed with the ISTS Advisory Committee. The Advisory Committee met eight times on the rules and the finally proposed rules have received significant input from that body.⁴

Nature of the Proposed Rules.

7. The MPCA indicated that the purpose of the proposed rules is "to prevent the improper location, design, installation, use, maintenance and abandonment of individual sewage treatment systems (hereinafter "ISTS") which could adversely affect water quality and the public health, safety, and general welfare by the discharge of inadequately treated sewage to surface and ground waters of the state."⁵ The MPCA seeks to provide minimum standards that will protect public health, safety, and the environment from hazards arising from insufficiently treated human waste.

8. The proposed rules establish standards for system design, inspections, and performance outcomes that are intended to provide adequate treatment to protect the environment from pathogens contained in sewage. Certain systems known to be inadequate are classified as "failing." The rules are also intended to prevent "surfacing" of sewage, the situation where such waste appears on the ground above malfunctioning systems. The current requirement that persons in the business of designing installing, maintaining, or inspecting ISTS systems must obtain licensure is modified under the proposed rules. The existing training and examination requirements are also modified. The accreditation standards for training programs are also modified.

² SONAR, at 2.

³ Id.

⁴ SONAR, at 2-3.

⁵ Exhibit 3, SONAR, at 1.

Statutory Authority.

9. The general authority of the MPCA is found at Minn. Stat. § 115.03, subd. 1(e), which states:

To adopt, issue, reissue, modify, deny, or revoke, enter into or enforce reasonable orders, permits, variances, standards, rules, schedules of compliance, and stipulation agreements, under such conditions as it may prescribe, in order to prevent, control or abate water pollution, or for the installation or operation of disposal systems or parts thereof, or for other equipment and facilities

10. The MPCA also cites Minn. Stat. § 115.55, subd. 3 as the source of its authority to adopt these rules. That statute reads as follows:

Subd. 3. Rules. (a) The agency shall adopt rules containing minimum standards and criteria for the design, location, installation, use, and maintenance of individual sewage treatment systems. The rules must include:

- (1) how the agency will ensure compliance under subdivision 2;
- (2) how local units of government shall enforce ordinances under subdivision 2, including requirements for permits and inspection programs;
- (3) how the advisory committee will participate in review and implementation of the rules:
- (4) provisions for alternative systems;
- (5) provisions for handling and disposal of effluent;
- (6) provisions for system abandonment;
- (7) provisions for the commissioner to approve new individual sewage treatment technologies; and
- (8) procedures for variances, including the consideration of variances based on cost and variances that take into account proximity of a system to other systems.

(b) The agency shall consult with the advisory committee⁶ before adopting rules under this subdivision.

⁶ The ISTS Advisory Committee.

11. The MPCA also identifies Minn. Stat. § 115.56, subd. 1, as providing authority for this rulemaking. That statute reads as follows:

Subdivision 1. Rules. (a) Pursuant to section 115.03, subdivision 1, by January 1, 1996, the agency shall adopt rules containing standards of licensure applicable to all individual sewage treatment system professionals.

The rules must include but are not limited to:

- (1) training requirements that include both classroom and fieldwork components;
- (2) examination content requirements and testing procedures;
- (3) continuing education requirements;
- (4) equivalent experience provisions;
- (5) bonding and insurance requirements;
- (6) schedules for submitting fees; and
- (7) license revocation and suspension and other enforcement requirements.

(b) The agency shall consult with the advisory committee⁷ before proposing any rules under this subdivision.

12. The Administrative Law Judge finds that the MPCA has the statutory authority to adopt the proposed rules under Minn. Stat. § 115.55, subd. 3, and Minn. Stat. § 115.56, subd. 1. The specific grant of authority in the ISTS area precludes a finding that the MPCA is authorized to adopt these rules under its broad grant of rulemaking authority.

Assessment of Impact and Cost of the Rules.

13. Minn. Stat. § 14.131 makes certain requirements of an agency proposing a rule for adoption. The statute states:

Before the agency orders the publication of a rulemaking notice required by section 14.14, subdivision 1a, the agency must prepare, review, and make available for public review a statement of the need for and reasonableness of the rule. The statement of need and reasonableness must be prepared under rules adopted by the chief administrative law judge and must include the following to the extent the agency, through reasonable effort, can ascertain this information:

- (1) a description of the classes of persons who probably will be affected by the proposed rule, including classes that will bear the costs of the proposed rule and classes that will benefit from the proposed rule;

⁷ *Id.*

(2) the probable costs to the agency and to any other agency of the implementation and enforcement of the proposed rule and any anticipated effect on state revenues;

(3) a determination of whether there are less costly methods or less intrusive methods for achieving the purpose of the proposed rule;

(4) a description of any alternative methods for achieving the purpose of the proposed rule that were seriously considered by the agency and the reasons why they were rejected in favor of the proposed rule;

(5) the probable costs of complying with the proposed rule; and

(6) an assessment of any differences between the proposed rule and existing federal regulations and a specific analysis of the need for and reasonableness of each difference.

14. The MPCA has identified (as of 1993) 491,925 housing units in Minnesota that are not connected to a public sewer. The owners of these properties will bear the cost of compliance with the rule. The MPCA described the reason for imposing these costs as follows:

Even though this group bears the cost, the agency feels that the benefit derived from properly treating sewage is worth the cost. Not bearing the cost results in untreated sewage being discharged on to lawns and ditches, and in to tile lines, surface waters and ground waters. These results are clearly evident in areas of Minnesota which have no or poorly enforced regulations and where finding sewage at ground level (surfacing of sewage) is commonplace. The public health and environmental cost of improper disposal of an estimated 57.4 million gallons of produced each day (491,000 households x 2.6 people/ household x 45 gal/person/day) in areas of Minnesota without sewers is unknown. However, it is known that sewage can contain pathogenic organisms at high concentrations from feces, blood, urine, vomit, phlegm, skin diseases and spoiled food contained in the sewage. Surfacing of untreated sewage is foul-smelling and can attract unwanted vectors and vermin.

Improperly treated sewage can enter surface waters where pathogens and eutrophication by nutrients are concerns.

Improper subsurface disposal of sewage into the soil can contaminate ground water drinking sources. The contaminated groundwater can enter

private drinking water wells where it is remains untreated before consumption.

Even where the risks of untreated sewage are unknown, it is inconceivable to the agency that a civilized society would not be willing to properly treat human sewage to remove pathogenic organisms and nutrients to levels that are perceived to be safe for human exposure and to maintain surface water quality for its many uses and to maintain property values by eliminating nuisance conditions.⁸

15. The MPCA estimates that the costs that the agency will incur due to the rules will be \$1,080,000 per year.⁹ The costs are primarily for staff to supervise, enforce, and assist in the implementation of these rules. The only other State agency that could incur costs is the Minnesota Department of Health (MDOH). MDOH has the primary responsibility for protecting public health. Establishments that require a license from MDOH that choose performance-based systems are identified as a source of cost to MDOH.¹⁰ No cost increases to other state agencies were identified, and no significant impact on state revenues is anticipated.¹¹

16. The MPCA indicated that it knows of no less costly methods or less intrusive methods for achieving the purpose of the proposed rule.¹² The terms of Minn. Stat. § 115.55 require adoption of rules on installation, use, and maintenance of ISTS systems and the MPCA relies upon the statute as meeting this requirement. Similarly, the requirement of licensing system for ISTS professionals arises from Minn. Stat. § 115.56.

17. There is a significant amount of federal law on sewage disposal. The MPCA indicates that there is no federal law on ISTS systems serving twenty people or fewer.¹³ The only federal requirement identified by the MPCA is mirrored in a rule requirement.¹⁴

18. The MPCA did not consider alternative methods of enforcement to the proposed rules, since the statutes governing this subject require rules establishing standards.¹⁵ The terms of the rules were developed through extensive involvement of the public through the ISTS Advisory Committee. The process used to develop the rule language complies with the requirement that the agency consider alternative methods for achieving the purpose of the proposed rules. The MPCA has complied with the statutory mandate to consider alternatives and has met the requirements of Minn. Stat. § 14.131.

⁸ Exhibit 3, SONAR, at 7-8.

⁹ Exhibit 3, SONAR, at 8.

¹⁰ *Id.*

¹¹ Exhibit 3, SONAR, at 8.

¹² Exhibit 3, SONAR, at 9.

¹³ Exhibit 3, SONAR, at 5-6.

¹⁴ *Id.* at 6.

¹⁵ Exhibit 3, SONAR, at 9.

Analysis of the Proposed Rule

19. The Administrative Law Judge must determine, *inter alia*, whether the need for and reasonableness of the proposed rule has been established by the MPCA by an affirmative presentation of facts. The MPCA prepared a Statement of Need and Reasonableness ("SONAR") in support of the adoption of each of the proposed rules. At the hearing, the MPCA relied on the SONAR in making its affirmative presentation of need and reasonableness for each provision. The MPCA also submitted written post-hearing comments including extensive changes to the proposed rule arising from comments received.

20. The question of whether a rule is reasonable focuses on whether it has a rational basis. The Minnesota Court of Appeals has held a rule to be reasonable if it is rationally related to the end sought to be achieved by the statute.¹⁶ The Supreme Court of Minnesota has further defined the burden by requiring that the agency "explain on what evidence it is relying and how the evidence connects rationally with the agency's choice of action to be taken."¹⁷ An agency is entitled to make choices between possible standards as long as the choice it makes is rational. If commentators suggest approaches other than that selected by the agency, it is not the proper role of the Administrative Law Judge to determine which alternative presents the "best" approach. However, the agency is obligated to consider the approaches suggested.

21. This Report is generally limited to the discussion of the portions of the proposed rule that received significant critical comment or otherwise need to be examined. Accordingly, the Report will not discuss each comment or rule part. Persons or groups who do not find their particular comments referenced in this Report should know that each and every submission (including every comment submitted before the hearing) has been read and considered. Moreover, because some sections of the proposed rule were not opposed and were adequately supported by the SONAR, a detailed discussion of each section of the proposed rule is unnecessary. The Administrative Law Judge specifically finds that the MPCA has demonstrated the need for and reasonableness of the provisions of the rule that are not discussed in this Report, that such provisions are specifically authorized by statute, and that there are no other problems that prevent their adoption.

22. Where changes are made to the rule after publication in the *State Register*, the Administrative Law Judge must determine if the new language is substantially different from that which was originally proposed.¹⁸ The standards to determine if the new language is substantially different are found in Minn. Rule 1400.1100. The MPCA made modifications to the proposed rule through this rulemaking process. Any substantive language, which differs from the rule as published in the *State Register*, will be assessed to determine whether the language is substantially different. Due to the

¹⁶ *Broen Memorial Home v. Minnesota Department of Human Services*, 364 N.W.2d 436, 440 (Minn. App. 1985); *Blocher Outdoor Advertising Company v. Minnesota Department of Transportation*, 347 N.W.2d 88, 91 (Minn. App. 1984).

¹⁷ *Manufactured Housing Institute v. Pettersen*, 347 N.W.2d 238, 244 (Minn. 1984).

¹⁸ Minn. Stat. § 14.15, subd. 3.

very large number of noncontroversial changes, not all the altered language has been discussed. Any change not discussed is found to be not substantially different from the rule as published in the *State Register*.

Impact on Agricultural Land.

23. Minn. Stat. § 14.111, imposes an additional notice requirement when rules are proposed that affect farming operations. The MPCA indicates that the rules themselves will have no impact on farming operations. The only potential for an impact on those operations arises from the possibility that less reliance on soil treatment may make more land available for agriculture.¹⁹ Nevertheless, on January 29, 1999, the MPCA notified the Commissioner of Agriculture that these rules were being proposed.²⁰ The Administrative Law Judge finds that the proposed rule change will not impact farming operations in Minnesota, and finds that no additional notice is required.

Minnesota Rule Chapter 4625

24. Minnesota Rule Chapter 4625 sets the waste disposal standards for "lodging establishments, such as hotels, motels, lodging houses, and resorts".²¹ The only change proposed to that rule is an amendment to the cross-reference citing the new rules of Chapter 7080. This non-substantive modification is being made by the Revisor of Statutes, not the MPCA. It merely corrects a cross-reference and does not require approval in this proceeding.

Minnesota Rule Chapter 4658

25. The health and safety standards for nursing homes are set out in Minn. Rule Chapter 4658. The Revisor of Statutes has proposed a change to that rule, in part 4658.4040, item C. The new language cross-references the new rules of Chapter 7080. No other changes are made to the rule. Clint Elston, President of Alasca, objected to this item as fostering discrimination against sewage treatment technologies better suited to treat pharmaceuticals and chemicals.²² The MPCA responded that such a change is outside the scope of the change proposed to the rule. The MPCA's analysis is correct. Significant groups that would be affected by such a change have not had any notice that such a change could occur. The proposal to change part 4658.4040, item C to allow different technologies would constitute a substantial change from the rule as published in the *State Register*. Again, the cross-reference is a Revisor's change.

Minnesota Rule Chapter 7080

7080.0010 PURPOSE AND INTENT

¹⁹ Exhibit 3, SONAR, at 212.

²⁰ Exhibit 10.

²¹ Minn. Rule 4625.0200.

²² Exhibit 8, Elston 3/31/99 letter.

26. The relation of Chapter 7080 to various waste disposal options is set out in part 7080.0010. The rule part is being amended in this proceeding to indicate the standards set out are intended to reasonably protect the waters of the State. The interaction between State regulation and Federal regulation is clarified. The local governmental unit (LGU) ordinance option is changed to a requirement.

27. Shirley Basta, Zoning Administrator of Pine County, questioned the use of the term "reasonably."²³ The MPCA responded that the proposed standards "do not provide 100% protection of groundwaters" ²⁴ The use of the term "reasonably" does not constitute a defect in the proposed rule.

28. Dakota County, through David Swenson, Supervisor of Land and Water Management and Michael Rutten, Environmental Specialist, suggested that the legislative intent for LGU involvement (particularly at the county level) can only be accomplished when counties have notice of ISTS issues within the LGU's jurisdiction.²⁵ The MPCA responded that it could institute the practice, but did not deem it necessary to include the practice as a rule requirement. The ALJ agrees.

7080.0020 DEFINITIONS

29. Proposed rule part 7080.0020 defines 106 terms used in the proposed rules. The majority of these terms is not controversial and will not be discussed in this report.

Subpart 1b. Additive, individual sewage treatment system.

30. Pine County questioned whether the definition of additives was meant to imply that additives are appropriate. The MPCA indicated that additives are unproven and clarified the rule's intent by changing it as follows:²⁶

Additive, individual sewage treatment system. *"Additive, individual sewage treatment system" means a product ~~which is~~ added to the wastewater or to the system with the intent to improve the performance of an individual sewage treatment system.*

The new language clarifies the intent of the rule and is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 3a1. Alarm device.

31. Michael Torma, Zoning Technician for the Carlton County Zoning Office related his experience with inspectors asking what types of alarms are required or

²³ Exhibit 8, Pine County 3/31/99 letter.

²⁴ MPCA Comment, at 2.

²⁵ Exhibit 8, Dakota County 3/31/99 letter.

²⁶ MPCA Comment, at 3.

allowed by the rules. Based on this experience, the commentator suggested that a definition of "alarm device" be added. The MPCA agreed and proposed the following:

7080.0020 subp. 3a1 (RR4.2) *Alarm device. "Alarm device" means a device which clearly alerts the system operator of malfunction by use of visual or audible methods; it is intended to prevent sewage overflows.*

32. In addition to adding the definition of "alarm device", the MPCA modified parts 7080.0160, subpart 1aD, 7080.172, subpart 3G, and 7080.0600, subpart 4D, to incorporate the term at appropriate places in the rules. The new language is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 4. Alternative System definition.

33. The MPCA noted that its addition of part 7080.0400 required amendment of the definition of "alternative system." The as amended, the subpart reads:

Alternative system. *"Alternative system" means an individual sewage treatment system employing methods and devices presented in part 7080.0910, subpart 7080.0172 or as designated by the commissioner in 7080.0400, subp. 2.*

The new language conforms the definition to other changes in the rule and is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 4a. Applicable requirements.

34. The MPCA proposed new language to subpart 4a deleting the reference to areas without ISTS ordinances. The rationale for the rule was that counties are now required to adopt such ordinances. The MPCA became aware that some counties will not have such ordinances adopted by the effective date of these rules. Accordingly, the MPCA proposed to retain the existing language which reads as follows:

Applicable requirements. *"Applicable requirements" means local individual sewage treatment system ordinances that comply with this chapter or, in areas without an ordinance to regulate individual sewage treatment systems, the requirements of this chapter.*

The effect of this action is to withdraw the proposed amendment to the rule. No commentator has identified any difficulty retaining the language. A withdrawal of language under these circumstances does not raise issues of need, reasonableness, or substantially different language.

Subpart 6. Bedrock.

35. The Minnesota Department of Health (MDOH) indicated that the definition of bedrock did not include "most of Minnesota's bedrock."²⁷ The MPCA accepted MDOH's suggestion to change the subpart, but retained the proposed language to allow use of criteria that can be identified "in the field."²⁸ The subpart, as amended, reads:

Bedrock. *"Bedrock" means ~~that~~ the layer of parent material which that is consolidated and unweathered. composed of consolidated or cemented rock particles or composed of interlocking mineral crystals and is either in a weathered or unweathered condition. Bedrock also includes layers of which greater than 50 percent by volume consists of unweathered in-place consolidated bedrock fragments.*

The new language meets the commentator's concerns and is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 10a. Certificate of compliance.

36. Certificates of compliance are issued to owners of ISTS systems upon each system passing inspection. Craig Gilbertson, R.S., of Cass County Environmental Services (Cass County), suggested adding "at the time of the inspection" to the definition.²⁹ The addition is intended to clarify that the inspection is for purposes of current compliance, not warranting future compliance. The MPCA accepted the suggestion, noting that "In the early licensing program, there were many property owners who thought of the inspection as an implied warranty"³⁰ In addition to the rule language, the MPCA noted its recommended existing system inspection form has been modified to disclaim any warranty of future performance.³¹ The rule as modified reads:

Certificate of compliance. *"Certificate of compliance" means a document written after a compliance inspection certifying that a system is in compliance ~~as specified under part 7080.0060, and signed by a qualified employee or licensee~~ with applicable requirements at the time of the inspection.*

The new language addresses a problem identified by a commentator. The rule as amended is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 15a. Drainfield Rock.

²⁷ Exhibit 8, MDOH 3/30/99 letter.

²⁸ MPCA Comment, at 4.

²⁹ Exhibit 15.

³⁰ MPCA Comment, at 5.

³¹ *Id.*

37. Jason Peterson expressed concern that the use of the term "igneous rock" in the definition of "drainfield rock" in subpart 15a would act to preclude the use of rock contaminated with dolomite limestone.³² The MPCA responded that allowing "other similar, insoluble, durable and decay resistant material" includes rock contaminated with dolomite limestone, so long as that material meets the rule requirements.³³ Subpart 15a is needed and reasonable as proposed.

Subpart 16. Dwelling.

38. Aitkin County inquired whether a dwelling used as an in-home daycare would fall outside the definition of dwelling in subpart 16.³⁴ The MPCA responded that if the system receives sewage from more than 20 persons or the waste is from non-domestic sources, the system is classified as an other establishment.³⁵ The distinction is performance-based, relying upon the load being placed on the ISTS system, not an arbitrary designation. Subpart 16 is needed and reasonable, as proposed.

Subpart 16b. Existing system.

39. Carlton County and the Minnesota Association of Realtors suggested modifying the definition of "existing system" in subpart 16b to "any system that currently exists."³⁶ The MPCA sought through the rule for the term and concluded that that "the term was not needed and that the common usage of the word "existing" was sufficient."³⁷ Therefore, the MPCA has proposed to delete the definition and modify the few places in the rules where the term appears. The deletion of the subpart is both needed and reasonable and the deletion does not constitute a substantially different rule from that published in the *State Register*.

Subpart 16c. Failing system.

40. Proposed subpart 16c defines "failing system" to include certain listed methods of sewage disposal, obviously leaking tanks, systems delivering more gallons of sewage per day than soil can accept, systems with insufficient head pressure, and systems lacking required vertical separation. Carlton County questioned whether the addition of a bedroom to a dwelling should also be included as a defined "failing system" when the mound or drainfield of the system is of inadequate size.³⁸ Pumpco inquired as to whether performance based systems would fall under the definition of "failing system" upon installation due to the reduced vertical separation of some of those systems. The MPCA responded that "If a system is designed per 7080.0179 (performance, RR25.20-21), and is meeting its performance requirements, then the system is in compliance."³⁹

³² Exhibit 8, Martindale 2/25/99 email.

³³ MPCA Comment, at 6.

³⁴ Exhibit 8, Aitkin County 2/26/99 letter.

³⁵ MPCA Comment, at 6.

³⁶ Exhibit 8, MN Assoc. of Realtors 1/19/99 letter, Carlton County 3/22/99 letter.

³⁷ MPCA Comment, at 6.

³⁸ Exhibit 8, Carlton County 3/22/99 letter

³⁹ MPCA Comment, at 7.

Regarding the issue of additional bedrooms, the MPCA accepted the ISTS Advisory Committee recommendation that no size determination should be required upon the addition of another bedroom.

41. The sizing issue was raised by the counties of Aitkin, Cass, Clearwater, Koochiching, and Pine, among other commentators, regarding the leaking tank, soil loading, and lack of head pressure standards. The commentators asserted that such systems are not sources of problems and that specific criteria for such systems be identified in the rule. In response to these comments, the MPCA modified the subpart to read:

*Subp. 16a. 16c. **Failing system.** "Failing system" means ~~any system that discharges sewage to a seepage pit, cesspool, drywell, or leaching pit and, other pit, a tank that obviously leaks below the designated operating depth, a soil system that is loaded greater than 1.2 gallons per square foot per day, a soil system with a pressure head no greater than 30 inches, or any system with less than three feet of soil or sand between the bottom of the distribution medium and the saturated soil level or bedrock. In addition, any system posing an imminent threat to public health or safety as defined in subpart 19a shall be considered failing. Upgrade requirements for these systems are found under parts 7080.0060, subparts 3 and 4, and 7080.0315 or 7080.0350 the required vertical separation as described in part 7080.0060, subpart 3.~~*

42. The MPCA deleted the soil load and head pressure standards based on its review of Minn. Stat. § 115.55. Since the language would require an inspector to check sizing and the MPCA had already decided to not require that check, the language was deemed unreasonable. The MPCA also considered the difficulty of conducting such an examination during winter months in deleting the standards. The concerns over vertical separation are addressed at part 7080.0060. The modified language of the subpart is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

43. Tom Dimond questioned why dry wells are defined as "failing systems" when such systems can meet the performance standards set out in other portions of the rule.⁴⁰ Carlton County suggested that dry wells always be defined as failing.⁴¹ The MPCA responded to that question as follows:

The proposed rule is divided into two distinct technical portions. In the first portion compliance is determined by adherence to a prescriptive design. In the second portion compliance is determined by proving through visual examination and/or analytical testing that the system is in compliance. Historically, seepage pits were judged under a prescriptive standard in which seepage pits, by virtue of their design, were failed. In the proposed

⁴⁰ Exhibit 8, Dimond 3/23/99 letter.

⁴¹ Exhibit 8, Carlton County 3/22/99 letter.

revisions two different pathways exist to grandfather the use of seepage pits.

The first pathway is that the local ordinance approves the use of seepage pits (Minnesota Statutes section 115.55, subdivision 5a (f)) as long as public health and the environment are protected. To ensure that not just any pit or excavation can be labeled as a seepage pit, the revised rule sets out the parameters of a seepage pit (7080.0950 RR.124-125).

The second pathway is the seepage pit meeting the performance standard. This can be done if allowed by local ordinance (7080.0305 subpart 10 - RR86.20-26 and RR87.1-2). This grandfathering could occur by proving the system without modification is adequately treating and disposing of the sewage, or by making modifications to meet the performance criteria⁴²

44. The MPCA has clarified that a system designated as "failing" in the prescriptive standard may yet be allowable, if that system is demonstrated to meet the performance-based treatment and disposal standards available under these rules and the LGU allows the use of such systems. There is no defect in the definition arising from the different treatment of the same type of system under two different standards.

Subpart 16h. Flow measurement.

45. Subpart 16h defines "flow measurement" for the purposes of the ISTS rules. Cass County suggested that the word "accurately" be added to the subpart.⁴³ The MPCA acknowledged that such an addition is needed to prevent inaccurate flow measurement that "can result in premature overloads and failures of septic systems."⁴⁴ The MPCA modified the subpart to read as follows:

7080.0020, subp. 16h. Flow measurement. "Flow measurement" means any method to accurately measure water or sewage flow, including water meters, event counters, running time clocks, electronically-controlled dosing or any combination thereof.

46. The rule as modified is needed and reasonable to prevent failure of septic systems. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 19c. ISTS professional.

⁴² MPCA Comment, at 9-10.

⁴³ Exhibit 15.

⁴⁴ MPCA Comment, at 12.

47. Hugh Veit, P.E., Vice President of KBM, Inc., questioned the use of the word "professional" as used in the proposed rules.⁴⁵ KBM suggested that the criteria in the rules do not rise to the level appropriate to use the description of professional. The MPCA indicated that no confusion has arisen from the use of that term and "the ISTS industry is truly a profession that takes adequate training, skill and expertise in order to design, install, inspect and maintain ISTS."⁴⁶ Based upon the level and quality of participation in this rulemaking process, persons involved in ISTS design, installation, and maintenance are deserving of the appellation "professional." Subpart 19c is needed and reasonable as proposed.

Subpart 22D. Local unit of government.

48. Local unit of government (LGU) is defined in subpart 22d. The definition is needed since the actions of entities with jurisdiction over ISTS are integral to the operation of the proposed rules. The MPCA indicated that its proposed definition for LGUs was appropriate to use in place of "permitting authority" throughout the rules. To conform the definition of LGU to meet the standard of "permitting authority" the subpart is modified to read:

*Subp. 22e. **Local unit of government.** "Local unit of government" means a township, statutory or home rule charter city, or county with jurisdiction over individual sewage treatment systems through a local ordinance.*

49. The subpart as modified meets the needs of defining both "permitting authority" and "local unit of government." The new language is not substantially different from the rule as published in the *State Register*.

Subpart 22e1. Mitigation Plan.

Subpart 22e2. Monitoring Plan.

50. The Minnesota Association of Realtors indicated that the term "monitoring plan" could cause confusion without a rule definition.⁴⁷ The MPCA agreed with the comment and proposed definitions for "mitigation plan" and "monitoring plan" that read as follows:

7080.0020 subp. 22e1. *Mitigation Plan. "Mitigation plan" means a planned course of action to be used in the event that a system fails to meet performance expectations established in 7080.0310 subpart 7..*

7080.0020 subp. 22e2. *Monitoring Plan. "Monitoring plan" means a plan which requires the periodic examination or testing of system performance established in 7080.0310 subpart 7.*

⁴⁵ Exhibit 8, KBM 3/24/99 letter.

⁴⁶ MPCA Comment, at 14.

⁴⁷ Exhibit 8, MN Association of Realtors 3/4/99 letter.

51. The definitions are consistent with the relevant portions of the rule and clarify areas of potential ambiguity. The new subparts are needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 23. Mottling.

52. Dakota County and Pine County urged the addition of a definition of "mottling" to assist in finding redoximorphic features, since mottling is the commonly used term in the industry.⁴⁸ The MPCA added subpart 23 that defines "mottling" as:

7080.0020 subp. 23 Mottling. "Mottling" means the same as redoximorphic features in subpart 28e.

53. The proposed subpart meets the needs of the industry by referencing the full definition of "redoximorphic features." The subpart prevents different standards from being applied to the same soil feature and is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 24. Mound system.

54. MDOH urged that the definition of "mound system" be clarified from at grade system by adding details, including the addition of at least one foot of sand to mound systems.⁴⁹ The MPCA proposed replacement of the definition as follows:

*Subp. 24. **Mound system.** "Mound system" means a system where the soil treatment area is built above the natural elevation of the soil to overcome limits imposed by proximity to saturated soil or bedrock, or by rapidly or slowly permeable soils system constructed on original soil. soil treatment system with a rockbed elevated above the original soil with clean sand to overcome soil limitations.*

55. The new language is consistent with the MPCA's approach to design elements for ISTS systems. The modified subpart is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

7080.0020, subp. 24c. New technology.

56. Subpart 24c defines "new technology." Robert W. Whitmyer, CPSS, Ayres Associates, urged a distinction be drawn between products that have been found to be effective and designs, since designs are site specific.⁵⁰ Cass County indicated that "new" technology may have been in use for many years, and suggested "approved

⁴⁸ Exhibit 8, Dakota County 3/31/99 letter, Pine County 3/31/99 letter.

⁴⁹ Exhibit 8, MDOH 3/30/99 letter.

⁵⁰ Exhibit 8, Ayres 3/19/99 letter.

technology" be used in the rule to describe these processes.⁵¹ Based on these comments, the MPCA proposed the following change.

7080.0020, subp. 24c. New Technology. "New technology" means a product sewage and disposal or design process, combination of components, component of a product; or modification to existing components, that has been approved by the agency in accordance with this chapter and is to be considered a standard system before actually being included by amendment to this chapter designated as such by the commissioner in part 7080.0400.

57. The MPCA explains its new language as needed to describe "the process or 'treatment train.'"⁵² The MPCA expects that new components will be submitted for approval prior to introduction. The anticipated approval process is described as follows:

The agency will look at the "product's sewage and disposal process," then designate the new technology submittal as an alternative system or a standard system depending on fulfilling (*sic*) the requirements of the new 7080.0400. The term new technology scares realtors, mortgage bankers and some LGUs.⁵³

58. Despite the potential for frightening affected groups, the MPCA is retaining the word "new," because the term is used in the statute.⁵⁴ The subpart as modified is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 28g. Restaurants.

59. Joseph Hibberd, Supervising Sanitarian for Ramsey County, noted that the definition of restaurants in subpart 28g could include private homes.⁵⁵ Based on that suggestion, the MPCA deleted the subpart. The term is used only once in the rules and the maximum waste strength is the method used to identify establishments falling outside the ISTS standards.⁵⁶ The deletion is needed and reasonable, and does not result in substantially different language from the rule as published in the *State Register*.

Subpart 31a. Septic tank.

60. "Septic tank" is defined in proposed subpart 31a. The proposed definition reflects the purpose of the device; that is to provide an opportunity for sewage to separate solids out and allow enzymes to break down organic matter. The resulting liquid waste, described in the rule as "clarified liquids," then discharges to soil treatment.

⁵¹ Exhibit 15.

⁵² MPCA Comment, at 16.

⁵³ MPCA Comment, at 17.

⁵⁴ *Id.*

⁵⁵ Exhibit 8, Hibberd 3/3/99 email.

⁵⁶ MPCA Comment, at 20.

Cass County suggested that the degree of clarity in the discharged liquids is not defined and a term unfamiliar to ISTS professionals is being used.⁵⁷ The MPCA acknowledged that effluent is the term usually used, and changed the rule as follows:

7080.0020, subp. 31a. Septic tank. "Septic tank" means any watertight, covered receptacle designed and constructed to receive the discharge of sewage from a building sewer, separate solids from liquid, digest organic matter, store liquids through a period of detention, and allow the clarified liquids effluent to discharge to a soil treatment system.

61. The modified rule is needed and reasonable to describe the device used throughout soil treatment systems. The new language does not result in substantially different language from the rule as published in the *State Register*.

Subpart 31b. Serial distribution.

62. Dakota County suggested that a definition for "serial distribution" be added. Serial distribution allows the passage of effluent to successively lower pipes for soil treatment while ensuring that some effluent reaches each level.⁵⁸ The MPCA agreed with the comment, since adding such a definition would increase the clarity of the rule. The language proposed reads:

7080.0020 subp. 31b (new). Serial distribution. "Serial distribution" means distribution of sewage by gravity flow that progressively loads one section of a soil treatment system to a predetermined level before overflowing to the succeeding section. This progressive loading does not place a dynamic head on lower section of the soil treatment system, nor does the distribution medium function as a conveyance medium to the next section.

63. The new subpart accurately describes the intended functioning of soil distribution of effluent by use of gravity. The new subpart is both needed and reasonable. The new language does not result in substantially different language from the rule as published in the *State Register*.

Subpart 33. Sewage.

64. "Sewage" is defined in subpart 33. David Gustafson, P.E., University of Minnesota Extension Service, urged the exclusion of water softener waste from the definition of "sewage." The MPCA responded as follows:

This issue has been contested for many years. The agency feels the current rule, which does not mention water softener wastes, is the preferred method to deal with this waste. The waste is not considered sewage because it does not come in contact with humans or pathogens, and it is nutrient free (except some sodium and calcium salts). Therefore,

⁵⁷ Exhibit 15.

⁵⁸ See MPCA Comment, Attachment 6, at 9, Figure 2.

the wastes pose little health or environment threat. The current non-mention of water softener wastes allows homeowners either to put it in their system (which is the easiest, due to internal plumbing configurations) or to remove the waste from the system if the waste is placing stress on the system). If the rule excludes this waste as sewage, then all homes would need a separate building sewer to handle this waste, which is impractical. This issue was discussed at the 4/1/99 ISTS Advisory Committee meeting and the consensus was not to mention these wastes in the rule. In addition, the MDOH rules would need amending to allow this waste to be diverted in any other fashion.⁵⁹

65. The MPCA has expressed valid reasons for not mentioning water softener waste. Alasca expressed concern that greywater waste streams used as feed for livestock would be classified as sewage.⁶⁰ The MPCA noted that greywater is already defined in the rule but modified the definition as follows:

*7080.0020 subp. 33 **Sewage.** "Sewage" means ~~any water-carried domestic waste, exclusive of footing and roof drainage and chemically treated hot tub or pool water, from any industrial, agricultural, or commercial establishment, or any dwelling or any other structure. Domestic waste includes liquid waste produced by toilets, or bathing, laundry, or culinary operations, and, or the floor drains associated with these sources. Animal waste and commercial or industrial waste are not considered domestic waste~~ Household cleaners in sewage are restricted to amounts normally used for domestic purposes.*

66. The modification clarifies that any of the identified waste streams constitute sewage. The MPCA indicates that greywater contains similar levels of fecal coliform bacteria to that of toilet waste.⁶¹ The subpart is needed and reasonable, as modified. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 38. Shoreland.

67. The MPCA noted that its proposed definition of "shoreland" could be read to give LGUs jurisdiction over the establishment of shoreland zones. The MPCA clarified the status of LGUs by modifying the proposed rule as follows:

Subp. 38. Shoreland. "Shoreland" means land ~~located within the following distances from adjacent to public waters: 1,000 feet from the ordinary high water mark of the lake, pond or flowage; and 300 feet from a river or stream or the landward extend of a floodplain designated by ordinance on such a river or stream, whichever is greater~~ that has been designated and

⁵⁹ MPCA Comment, at 22.

⁶⁰ Exhibit 8, Alasca 3/26/99 letter.

⁶¹ MPCA Comment, at 23.

delineated as a shoreland by local ordinance as approved by the Department of Natural Resources.

68. The proposed language is consistent with the DNR's jurisdiction over shoreland designation. The subpart is needed and reasonable, as modified. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 41a. Soil dispersal system.

Subpart. 44. Soil treatment system.

69. Cass County suggested that soil treatment system was used in the rule and soil dispersal system was superfluous.⁶² The MPCA agreed and deleted subpart 41a that defined "soil dispersal system." Subpart 44 was modified by deleting the reference to sewage "tanks" to accommodate soil treatment systems that receive effluent from other sources. Other changes were made in part 7080.0179, subpart 2C(1) and (2) to conform the body of the deletion of "soil dispersal system." The deletion and rule modifications are needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 45b. Subsoil.

70. Dakota County suggested adding the word "moist" to describe the color value of the soil layer constituting subsoil. The MPCA agreed, noting that the moist color value is the method used for determining subsoil colors. The subpart as modified is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

New Subpart. Inner wellhead management zone.

Subpart 46a. SWF.

Subpart 54. Wellhead protection area.

71. MDOH urged adoption of a definition of "inner wellhead management zone" to protect drinking water sources not protected under MDOH rules. The MPCA adopted the language suggested by MDOH which reads as follows:

7080.0020 subp. "new." *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 Minnesota Department of Health under Minnesota Rules, part 4720.5330 and is the area within 200 feet of a public water supply well.*⁶³

⁶² Exhibit 15.

⁶³ MPCA Reply, at 2.

72. MDOH indicated that the definition of "SWF" in subpart 46a, should be modified to reflect inner wellhead management zones and the MDOH designations of aquifers as vulnerable to contamination.⁶⁴ The MPCA modified the subpart as follows:

7080.0020 Subp. 46a. **SWF.** "SWF" means the following three categories of systems: systems constructed in shoreland areas; systems constructed in wellhead protection areas or inner wellhead management zones regulated under Minnesota Statutes chapter 103I; and systems serving food, beverage, and lodging establishments, including manufactured home parks and recreational camping areas licensed according to Minnesota Statutes chapter 327.

73. The reference to "wellhead protection areas regulated under Minnesota Statutes chapter 103I" meets the MDOH suggestion, after the MPCA modified subpart 54, as follows:

7080.0020, subp. 54. **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 regulated under chapter 4720. For the purposes of this rule, wellhead protection area shall be that area bounded by the drinking water supply management area regulated under chapter 4720. If the drinking water supply management area is not delineated, the wellhead protection area shall be the inner wellhead management zone.

74. The MPCA conferred with MDOH in arriving at the proposed language.⁶⁵ As a matter of practice, inner wellhead management zones and wellhead protection areas are delineated by readily observed landmarks.⁶⁶ The information required to identify these zones and areas is made available to counties and is being made available through a website.⁶⁷ The proposed subparts, as modified, are needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 48a. Toilet waste treatment devices.

75. Carlton County urged the addition of privies to the definition of "toilet waste treatment devices."⁶⁸ The MPCA agreed that privies should be mentioned. Rather than change the definition, the MPCA modified part 7080.0172, subpart 4A to read:

7080.0172 Subp. 4. **A. Toilets.** A toilet waste treatment device or privy shall be used in conjunction with a greywater system. Greywater or garbage

⁶⁴ Exhibit 8, MDOH 3/30/99 letter.

⁶⁵ MPCA Reply, at 2-3.

⁶⁶ *Id.*

⁶⁷ *Id.*

⁶⁸ Exhibit 8, Carlton County 3/24/99 letter.

shall not be discharged to the toilet waste treatment device except as specifically recommended by a manufacturer.

76. The MPCA describes privies as "more like an ISTS than a toilet waste treatment device."⁶⁹ Thus, the MPCA made the requested change to the ISTS system standard rather than the definitions. This change will retain the requirement that a privy be installed by permit, after site evaluation, professional design, and inspection.⁷⁰ The MPCA has demonstrated that the change is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

7080.0025 ADVISORY COMMITTEE

77. Minnesota Rule 7080.0025 establishes ISTS Advisory Committee. The Advisory Committee is a resource to provide technical input to the MPCA when the agency makes decisions regarding ISTS issues.⁷¹ In the proposed rules, the MPCA modified the membership of the Advisory Committee. MDOH pointed out that it was now to be a voting member, thus the reference to the Minnesota Department of Health as a nonvoting member should be stricken. Donna Peterson of the Minnesota Lakes Association suggested that the Association be added to the Advisory Committee. The MPCA agreed with both suggestions and modified the rule to strike MDOH and add the Minnesota Lakes Association to the list of nonvoting members. The MPCA supported the need and reasonableness of adding the Association as follows:

The state's ISTS program was started to protect Minnesota lakes from degradation from non-treating ISTS. Today there are still many dwellings surrounding lakes which need upgrading. Therefore, to have a representative of the Lakes Association would be a benefit to the Committee when discussing system design and upgrade requirements in lakeshore areas. The issue whether to include a representative on the Committee was discussed at the April 1 ISTS Advisory Committee meeting; the Lakes Association should be included as a non-voting member.⁷²

78. The changes made to the list of nonvoting members are needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

7080.0030 ADMINISTRATION BY STATE AND FEDERAL AGENCIES

Subpart 1a. SDS and NPDES permits required.

79. Aldean Luthi, President of the Stevens County Farm Bureau, questioned why septic tank effluent could not be discharged directly to the ground surface (or to a

⁶⁹ MPCA Comment, at 27.

⁷⁰ *Id.*

⁷¹ SONAR, at 42.

⁷² MPCA Comment, at 27-28.

drainage ditch).⁷³ Stevens County Farm Bureau maintained that direct discharge was demonstrated to be reasonable because this is a method currently used by some homeowners. Other commentators noted that land spreading on agricultural fields is an approved disposal method of septic solids and petroleum-contaminated soils.⁷⁴ Stevens County Farm Bureau; Harold Luthi, a farmer in Stevens County; and others asserted that homeowners should be authorized to discharge effluent, since municipalities conduct discharges from sewage treatment plants.⁷⁵ The practice of discharging sewage effluent was compared to the environmental impact of maintaining lagoons of animal manure located at feedlots.⁷⁶ At the core of all of these objections was the perception that imposing the cost of installing ISTS systems to the standards in the proposed rules is unreasonable.⁷⁷

80. The MPCA relies upon the express statutory direction in supporting the proposed prohibition against direct discharge of effluent. Minn. Stat. § 115.55, subd. 5a, states in pertinent part:

Subd. 5a. **Inspection criteria for existing systems.** (a) An inspection of an existing system must evaluate the criteria in paragraphs (b) to (h).

(b) If the inspector finds one or more of the following conditions:

- (1) sewage discharge to surface water;
- (2) sewage discharge to ground surface;
- (3) sewage backup; or
- (4) any other situation with the potential to immediately and adversely affect or threaten public health or safety,

then the system constitutes an imminent threat to public health or safety and, if not repaired, must be upgraded, replaced, or its use discontinued within ten months of receipt of the notice described in subdivision 5b, or within a shorter period of time if required by local ordinance.

81. The statutory directive to repair or replace specific systems is clear and unambiguous. The MPCA cannot adopt a rule inconsistent with a statute.⁷⁸ Under Minn. Stat. § 115.55, subd. 5a, the MPCA is not granted any discretion to exempt systems that discharge sewage to ground surface.

82. The MPCA provided an analysis of the propriety of surface discharge that states:

⁷³ Transcript, Volume 1, at 73-75.

⁷⁴ Exhibit 8, Staples 3/3/99 letter; Exhibit 20.

⁷⁵ Transcript, Volume 1, at 73-75.

⁷⁶ Transcript, Volume 1, at 57; Exhibit 20.

⁷⁷ Transcript, Volume 1, at 57 and 75; Exhibits 12; 17, 22, and 27.

⁷⁸ Minn. Stat. § 14.45.

The major constituents of concern are pathogens. Sewage can contain pathogenic organisms in high concentrations. Infectious agents in sewage are: Hepatitis, E. Coli, typhoid, cholera, HIV, polio, parasites and many, many others. Infectious agents come from phlegm, saliva, vomit, blood, skin diseases, urine, feces and spoiled food wastes. Septic tanks provide very little treatment for most pathogenic organisms (except for some larger parasitic ova and cysts); therefore, it is the agency's position that septic tank effluent should not be discharged to the ground surface.⁷⁹

83. Anton Schaefer maintained that diseases are not a sufficient basis to require imposition of costs on rural landowners.⁸⁰ The MPCA pointed out that immunizations are not as universal among children as in prior years, in part due to the success in preventing outbreaks of disease. The Legislature has expressly found that noncompliant systems constitute an "imminent threat to public health or safety."⁸¹ The MPCA has demonstrated requiring subsurface disposal for ISTS systems to be needed and reasonable.

84. Municipalities do discharge effluent, but only after the sewage has been settled (to remove solids), treated (to reduce pathogens), and disinfected.⁸² The MPCA indicated that any person seeking to discharge effluents must have a federal National Pollutant Discharge Elimination System (NPDES) permit.⁸³ The current annual fee for that permit alone is \$505.00.⁸⁴ The required treatment of sewage pursuant to that permit parallels the treatment required under the ISTS rule (which does not require an annual fee).⁸⁵ There is no defect in the rules demonstrated by municipal wastewater disposal practices.

85. Commentators compared the potential impact of failing systems with the impacts caused by feedlots. The appropriate level of regulation of manure lagoons located on feedlots is a controversial issue. The MPCA responded to the comments as follows:

It should be understood that "failing systems" with a lack of adequate separation distance from the bottom of the drainfield to the groundwater will cause contamination. This has been documented by many researchers. A few of these research papers have been compiled in Attachment 15. Therefore, the agency, in good conscience, had to identify these systems as failed. However the agency realized that the contamination plumes may not be directly affecting drinking water wells or surface waters. Therefore, the agency decided that the time frame to

⁷⁹ MPCA Comment, at 30.

⁸⁰ Exhibit 17.

⁸¹ Minn. Stat. § 115.55, subd. 5a(b).

⁸² MPCA Comment, at 31.

⁸³ *Id.*

⁸⁴ SONAR, Exhibit 42a.

⁸⁵ The MPCA notes that the cost could be spread over a group of homeowners, particularly where a professional wastewater vendor is involved. MPCA Comment, at 31.

upgrade these systems should be a local decision. This time frame can be as long as ten months following the point at which the system is no longer hydraulically functioning, (i.e., becomes an imminent threat to public health and safety per Minn. Stat. § 115.55, subdivision 5a). This gives the local permitting authority complete flexibility in determining upgrade requirements based on the cost and threat to public health for failed systems. The statute and proposed rule also allow the use of local standards that are less restrictive than this chapter.

Research sponsored by the agency in the Beauford watershed in Blue Earth County studied the impact of surface discharges of septic tank effluent. The purpose of the project was to quantify the amount of fecal coliform bacteria in the ditches and streams and to determine what reductions would occur in concentrations of fecal bacteria if code-complying systems were installed. This watershed also had two large feedlots which provides a comparison of the effects of surface discharge of sewage versus the effects from animal production (28 ISTS versus 2 feedlots). Eighteen of the 28 systems in the watershed were upgraded in this project. Monitoring for fecal contamination occurred before and after upgrades. The results indicated large declines in fecal contamination after the ISTS were upgraded. This study showed that:

- 1) the discharge of septic tank effluent causes fecal contamination of surface waters;
- 2) the impacts are not localized to the area near the discharge pipe; and,
- 3) upgrading ISTS can achieve major reductions in fecal contamination in a watershed even with the presence of feedlots (See attachment 16).

It should also be noted that feedlot manure is different than human waste. Human wastes contain pathogenic organisms that can affect other humans. Feedlot wastes typically concern animal-carried agents and environmental protection, rather than public health protection as the primary goal of protection. Human wastes need to be treated for public health protection.⁸⁶

86. The MPCA has demonstrated the need and reasonableness of treating the disposal of human waste more stringently for public health protection than the disposal of animal waste.

87. Byron Koehl, a farmer from Stevens County, maintained that subsurface disposal in areas with insufficient vertical separation requires the use of mound systems

⁸⁶ MPCA Comment, at 32-33.

and this is unreasonable because such systems fail in Minnesota due to freezing.⁸⁷ The MPCA responded:

The agency has been told many times that mound systems do not work. The perceived problems are seepage from the mound or freezing. There are mound failures in Minnesota. The agency has followed up on many of these reported failures only to find that the mound was not designed or constructed per Chapter 7080 requirements. The agency has never been to a failed mound which was properly designed, installed, used and maintained. Mounds are more sensitive to failure if requirements of 7080 are not met. The agency is in frequent contact with local permitting authorities and the agency routinely asks for the failure rate of mound systems. The typical range of answers is between 1 and 3 percent out of an estimated 5000 mound installations per year.⁸⁸

88. The requirement of mound systems is consistent with the legislative requirement of subsurface disposal. The failure rate of mound systems indicates that such systems require careful design and construction, but does not demonstrate that the rule is unreasonable.

89. The MPCA has surveyed contractors to determine what a typical trench system and what a typical mound system would cost. At \$4,000 for trench systems and \$6,200 for mound systems, both with an expected useful life of 25 years, the cost is eminently reasonable. The MPCA notes that on some difficult sites, the cost could rise as high as \$15,000.⁸⁹ The MPCA also notes that the fees paid by homeowners on municipal systems are comparable to the amortized cost of an ISTS system.⁹⁰ Alternative systems, potentially less costly to install and operate, are fostered under the proposed rules. The expense of sewage treatment does not render the proposed rule unreasonable.

90. The MPCA recounted the extensive standards required when land spreading is used to dispose of treated sewage solids. The agency noted that the presence of untreated sewage on the ground's surface meets none of these requirements.⁹¹ The existence of land spreading of treated solids does not render the proposed rule unreasonable.

Subparts 3 B and C. Variance procedures.

91. Variances to separation distances are expressly allowed under subparts 3.B and 3.C. MDOH suggested changing the reference to the Department to "Plumbing Code administrative authority" to clarify situations where LGUs have received delegated

⁸⁷ Exhibit 22.

⁸⁸ MPCA Comment, at 31-32.

⁸⁹ MPCA Comment, at 32.

⁹⁰ *Id.* Those costs do not include the capital costs of sewer connection to the municipal system.

⁹¹ MPCA Comment, at 34-35.

authority to administer the Plumbing Code.⁹² Dakota County suggested that a reference to the local authority be added.⁹³ The MPCA modified the two subparts as follows:

7080.0030 subp. 3 *B.* Variances to separation distances from wells may only be issued by the Minnesota Department of Health. In areas where the Minnesota Department of Health has designated the well program to a local governmental unit, a variance is required from that the local delegated program. Variances to separation distances from water supply pipes may only be issued by the Minnesota Department of Health or Plumbing Code administrative authority.

7080.0030 subp. 3 *C.* Before granting a requested variance, the commissioner or agency must find by reason of exceptional circumstances that strict enforcement of any provision of this chapter would cause undue hardship; that disposal of the sewage is necessary for the public health, safety, or welfare; or that strict conformity with the standards parts 7080.0305 to 7080.0315 would be unreasonable, impractical, or not feasible under the circumstances, or not reasonable due to proximity of systems. The agency may permit a variance under part 7000.7000 upon conditions as it may prescribe for prevention, control, or abatement of pollution in harmony with the general purpose of this chapter and the intent of applicable state and federal laws. ~~Variances to separation distances from wells and water supply pipes can only be issued by the Minnesota Department of Health.~~ The variance request must contain, as applicable:

* * * *

92. The modifications more accurately describe the appropriate methods for obtaining a variance. The rule as modified is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

7080.0030, subp 4. Administration by all state agencies.

93. Debbi Kinney, President of Pumpco, objected the language in subpart 4 that would limit installation of alternative systems to locations where standard systems cannot be installed.⁹⁴ MDOH indicated that the subpart required clarification regarding the role of LGUs.⁹⁵ In its Reply Comment, the MPCA proposed the rule be changed to read as follows:

Subp. 4. Administration by all state agencies. *Individual sewage treatment systems serving establishments or facilities licensed or otherwise regulated by Minnesota shall conform to the requirements of this chapter. Use of systems designed under part 7080.0172, 7080.0178, or 7080.0179*

⁹² Exhibit 8, MDOH 3/30/99 letter.

⁹³ Exhibit 8, Dakota County 3/31/99 letter.

⁹⁴ Exhibit 8, Pumpco 3/19/99 letter.

⁹⁵ Exhibit 8, MDOH 3/30/99 letter

for new construction or replacement of systems that serve establishments licensed or otherwise regulated by the state of Minnesota Department of Health is are allowed only in areas where a standard system cannot be installed or is not the most suitable treatment and only where allowed and enforced under ordinance and permit of the local unit of government. . Any individual sewage treatment systems requiring approval by the state shall also comply with applicable local codes and ordinances. Plans and specifications must receive the appropriate state and local approval before construction is initiated.

94. The MPCA relied upon the suggestions of the ISTS Advisory Committee in making the changes. Limitation to systems licensed by MDOH is based on the lack of interest expressed by other state agencies that have jurisdiction over similar systems.⁹⁶ The limitation of alternative systems is intended to protect the environment where larger demands are placed on a system and recognizes the limits of the responsible agencies in ensuring against system failures.⁹⁷ The rule as modified is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

7080.0060 COMPLIANCE CRITERIA

Subpart 2. Primitive Dwellings.

95. A dwelling where water is carried by hand or obtained by a hand pump is described in part 7080.0060, subpart 2, as a "primitive dwelling." For such dwellings, subpart 2 would prohibit discharge to "poorly drained soils in a manner or volume" that would result in harm or nuisance. Carlton County suggested that "poorly drained soils" be defined. Pine County asserted the rule was unenforceable since the outer limit on volume was not set.⁹⁸ Craig Berg of Insight Septic Service, questioned the whether the disposal of greywater in a below grade pit in certain soils would conform to the proposed rule.⁹⁹ The MPCA indicated that the rule was intended to be open to interpretation and that criteria are available where agreement cannot be reached.¹⁰⁰ The MPCA described the rule requiring "an outcome instead of a design standard" to allow LGUs to work out solutions over a variety of situations.¹⁰¹ The rule is needed and reasonable as proposed.

Subpart 3. Compliance criteria.

96. The Minnesota Association of Realtors urged incorporation of the text of Minn. Stat. § 115.55, subd. 5a (c) into subpart 3, to clarify that no upgrade, replacement

⁹⁶ MPCA Reply, at 9.

⁹⁷ SONAR, at 48-49.

⁹⁸ Exhibit 8, Pine County 3/31/99 letter.

⁹⁹ Exhibit 8, Berg 3/29/99 letter.

¹⁰⁰ MPCA Comment, at 37.

¹⁰¹ *Id.*

or repair is required where there is no imminent threat to public health or safety.¹⁰² The MPCA declined to make that change noting that subpart 3 directs local inspectors in determining compliance.¹⁰³ The suggested change does not add any needed information to the subpart. The rule is needed and reasonable as proposed.

97. Pine County expressed concern that the provision requiring soil measurement for vertical separation be performed outside the system area would lead to inspectors seeking a suitable measurement regardless of the area's suitability.¹⁰⁴ The Minnesota Association of Realtors questioned the reasonableness of determining soil separation in the system area by a measurement outside of the area.¹⁰⁵ The MPCA responded as follows:

No rule change is proposed. It is unreasonable to require inspectors to take a soil boring within the system to verify vertical separation compliance. This could result in system damage and a greater number of Notices of Noncompliance being issued. Current practice of taking the boring outside of the system is not being changed. Inspectors typically determine the bottom of the system by probing and find the mottled soil or bedrock through soil probes. Inspector judgments and sometimes multiple borings are necessary to make a reasonable judgment. Please see the attached vertical separation Factsheet describing the difference between vertical separation during system operation versus determining vertical separation in the field by conducting a soil boring (Exhibit 1).¹⁰⁶

98. The MPCA has demonstrated that requiring sampling outside the area is needed and reasonable. No change is required in the vertical measurement requirement.

99. The Minnesota Association of Realtors questioned whether an additional compliance standard was being added in subpart 3.A(3) by requiring that a system meet "the performance expectations of any applicable monitoring plan."¹⁰⁷ The MPCA indicated that systems under parts 7080.0178 and 7080.0179 are subject to a monitoring plan. To clarify that these are the systems meant in the rule, the MPCA modified the subitem to read as follows:

(3) the system meets the performance expectations of any applicable monitoring plan as required under parts 7080.0178 and 7080.0179; and

100. The rule as modified is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

¹⁰² Exhibit 8, MN Association of Realtors 3/4/99 letter.

¹⁰³ MPCA Comment, at 38-39.

¹⁰⁴ Exhibit 8, Pine County 3/31/99 letter.

¹⁰⁵ Exhibit 8, MN Association of Realtors 3/4/99 letter.

¹⁰⁶ MPCA Comment, at 41.

¹⁰⁷ Exhibit 8, MN Association of Realtors 3/4/99 letter.

101. The City of Orono questioned how a system built on April 1, 1996 would be treated under the proposed rules.¹⁰⁸ The MPCA modified subpart 3.B(1) to clarify that existing systems built after March 31, 1996 must have three feet of vertical separation. The modification clarifies the rule and is both needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

7080.0065 ACCEPTABLE AND PROHIBITED DISCHARGES

Subpart 3. System influent.

102. Based on comments from Pumpco and others, the MPCA deleted the reference to "clear water" from the description of "system influent" in part 7080.0065, subpart 3. The MPCA noted that "The definition of sewage basically disallows the introduction of non-sewage (clear water)."¹⁰⁹ The deletion is needed and reasonable and the resulting language is not substantially different from the rule as published in the *State Register*.

7080.0110 DESIGN PHASE I: SITE EVALUATION.

Subpart 2a. Preliminary evaluation.

103. A preliminary evaluation containing flow determination, locations of systems, locations of water wells, ordinary high water levels, floodplain designation, legal descriptions of the property, and soil classifications is required under subpart 2a of part 7080.0110. Pine County objected to the preliminary evaluation as a waste of money and time.¹¹⁰ MDOH suggested including an inquiry as to whether the proposed system was located within the inner wellhead management zone or wellhead protection area.¹¹¹ MDOH also suggested adding more specific language under the alternative system standard for preliminary evaluation. MPCA supported the preliminary evaluation as needed to perform even the most basic system planning.¹¹² The MPCA agreed with the MDOH comments and modified subpart 2a as follows:

subp 2a.(new) *K. inner wellhead management zone or wellhead protection area of a public water supply.*

* * *

7080.0110 subp. 2a B (1). *(i) location of water supply wells within 100 feet of the proposed individual sewage treatment system;*

(ii) location of non-community transient public water supply wells within 200 feet of the proposed individual sewage treatment system if alternative local standards are in effect;

¹⁰⁸ Exhibit 8, City of Orono 3/23/99 letter.

¹⁰⁹ MPCA Comment, at 43.

¹¹⁰ Exhibit 8, Pine County 3/31/99 letter.

¹¹¹ Exhibit 8, MDOH 3/30/99 letter.

¹¹² MPCA Comment, at 43.

(iii) location of community or non-community non-transient water supply in a drinking water supply management area if alternative local standards are in effect:

104. The MPCA explained that these modifications are needed to comply with the "new statutory requirements for protection of sources of drinking water in wellhead protection areas per Minnesota Statutes 115.55 subdivision 7 (d)."¹¹³ Subpart 2a is needed and reasonable as modified. The new language is not substantially different from the rule as published in the *State Register*.

105. Dakota County suggested modifications to the soil identification and system location standards to render design and installation easier and more efficient.¹¹⁴ The MPCA agreed with the suggestions and modified subparts 2a.H and 5a.C(1) as follows:

7080.0110 subp. 2a.H. ~~the soil map unit, applicable soil characteristics, and soil suitability as determined by the soil survey report~~ soil classifications and applicable characteristics at the proposed soil treatment areas. The soil survey report, if available, shall be consulted. Justification shall be made of the soils characteristics identified on the site which substantially differ from the characteristics identified in the soil survey report.

* * *

7080.0110 subp. 5a. C. (1) - *a map drawn to scale or dimension, with a north arrow, and including:*

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

106. The new language did not include the option for an LGU to require staking or flagging suggested by Dakota County, but the suggested language for the map contents captures the intent of the suggestion. The potential for substantial amounts of time between the planning and construction was cited as the reason for not requiring flagging.¹¹⁵ The rule as modified is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 4. Field evaluation.

107. Dakota County suggested that certain features be added to "soil characteristic" in subpart 4D(8). The MPCA agreed to the suggestion and made that

¹¹³ MPCA Comment, at 43.

¹¹⁴ Exhibit 8, Dakota County 3/31/99 letter.

¹¹⁵ MPCA Comment, at 48.

change "to highlight the common features in Minnesota soils which affect ISTS design."¹¹⁶ The new language is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

108. Dakota County urged that test holes for mounds and at-grade systems be at a depth of 12 inches in the original soil.¹¹⁷ The MPCA declined to make that change, stating:

No change is proposed. It is the agency's belief that the current requirement that the percolation test for mound and at-grade systems be conducted somewhere in the upper 12 inches is better than requiring the location of the test to be exactly at 12 inches. For example, if the soil has a clayey texture in the upper 10 inches overlying sandy textures, then flexibility should be provided so the test could be run shallower to determine the slowest percolation rate.¹¹⁸

109. The MPCA has demonstrated that its proposed language in the subitem is needed and reasonable. There is no defect in declining to change the rule to require a depth of 12 inches for test borings.

7080.0115 DESIGN PHASE II

Subpart 1. Design report.

110. The second phase of design reporting requires compliance with all applicable codes, ordinances, rules, laws, or other standards. In reviewing the language of subpart 1, the MPCA perceived the possibility that affected persons could read the rule to mean that design reports are not required for systems governed by 7080.0178 or 7080.0179. To ensure that the rule clearly stated the intent to require such reports for all systems, the MPCA modified subpart 1 to read:

7080.0115, subp. 1 ***Design report.*** *A completed design report shall be considered the second phase for an individual sewage treatment system design. Design requirements are stated in the technical standards and criteria. Phase II design reports shall include drawings, design flows, system component sizing and calculations, hydraulic loading rates, setbacks, construction considerations, and, as applicable, maintenance contracts, operational requirements, monitoring, and mitigation plans.*

111. The MPCA also included "operational requirements" in the standards for contents of a design report as suggested by MDOH. The new language clarifies the standards for Phase II design reports and is needed and reasonable.

¹¹⁶ MPCA Comment, at 47.

¹¹⁷ Exhibit 8, Dakota County 3/31/99 letter.

¹¹⁸ MPCA Comment, at 47-48.

112. MDOH and Larry Fyle indicated that the rule was not clear as to who was responsible for determining organic loading rates. The MPCA acknowledged that the rule was not clear on this question and modified subpart 1 as follows:

7080.0115, subpart 1. Design Phase II. A completed design report shall be considered the second phase for **and** individual sewage treatment system design. Design requirements are stated in the technical standards and criteria. Phase II design reports shall include drawings, design flows, system component sizings and calculations, hydraulic and organic loading rates, setbacks, construction considerations, and, as applicable, maintenance contracts, monitoring and mitigation plans.

113. The MPCA explained that the measurements indicated constitute "design work and can only be conducted by a designer I or designer II per 7080.0850 subp. 5" ¹¹⁹ The difficulty presented by the two rule changes is that each does not include the changes made by the other. The Judge understands the MPCA's Comment to mean that both changes are intended. The rule language incorporating both changes reads:

7080.0115, subp. 1 **Design report.** A completed design report shall be considered the second phase for an individual sewage treatment system design. ~~Design requirements are stated in the technical standards and criteria.~~ Phase II design reports shall include drawings, design flows, system component sizing and calculations, hydraulic and organic loading rates, setbacks, construction considerations, and, as applicable, maintenance contracts, operational requirements, monitoring, and mitigation plans.

114. The subpart incorporating both changes is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

7080.0120 BUILDING SEWERS

115. The standards for construction of the building sewer, the piping that transports sewage from the building to the ISTS, are set out in part 7080.0120. As proposed, the rule part referenced the Minnesota Plumbing Code (Chapter 4715) and the wells and borings rules (Chapter 4725). MDOH noted that the Plumbing Code did not apply to ISTS systems and that a consistent standard protective of wells is needed. ¹²⁰ MDOH suggested limiting the allowable components of building sewers to cast iron or plastic pipe. The MPCA modified the rule as follows:

7080.0120 subpart 1. **Plumbing and well codes.** The design, construction, and location of, ~~and the materials for use in,~~ building sewers shall be in accordance comply with the Minnesota State Building Code, chapter 1300, which incorporates by reference portions of the Minnesota Plumbing Code, chapter 4715, Only polyvinyl chloride (PVC) plastic pipe

¹¹⁹ MPCA Comment, at 62.

¹²⁰ Exhibit 8, MDOH 3/30/99 letter.

meeting the specification methods and testing protocol described in chapter 4715.0530 and 4715.2820 shall be used. The design, construction, and location of, and the materials for use in wells and borings shall comply with Minnesota rules chapter 4725. relating to wells and boring.

116. The MPCA described the changes as needed to exclude cast iron, clay, concrete, and bituminous pipe due to problems with maintenance, durability, and leaking.¹²¹ The problems identified demonstrate the need and reasonableness of the rule as modified. While the rule change could have an impact on suppliers of cast iron, clay, concrete, and bituminous piping, these potentially affected parties have received adequate notice of the rulemaking to enable them to participate. The rule change does not render the rule substantially different from the rule as published in the *State Register*.

7080.0125 SEWAGE FLOW DETERMINATION FOR DWELLINGS

117. To determine how much sewage capacity a residence must have, the shorthand calculation has relied upon the number of bedrooms in the residence. The reasoning behind that method is that bedrooms house people and the more people, the greater the demands placed upon the ISTS system. Dwellings are divided into categories to reflect differences between potential demands arising from use of available space and attachment of various devices. Larry Fyle suggested Classification III dwellings should be removed from the rule, since in his area, new construction consists of cabins suitable for year-round occupancy.¹²² The MPCA noted that this issue has been a subject of debate for some time. The MPCA's reasons for not changing the rule are:

The agency feels that chapter 7080 is a minimum code, therefore if a dwelling fits the type III classification, the system should be allowed to be made smaller due to less flow. This preference is based on the large safety factor used in the flow estimates with most type I homes only using 50% of the design flow. This extra safety factor is necessary for larger modern homes due to peak use times and increased longevity (the 25-year design life is based on the system receiving only 50% of the design flow). Therefore to require a type III home to be based on a type I or II classification does not seem reasonable. Local governmental units or individual designers can increase the flow for these smaller, less modern homes if desired. Allowing a smaller flow also allows a "standard" system to be placed on a small lot, in which it could not be placed if the larger flows were required to be used.¹²³

118. There is no significant burden placed on designers or LGUs by having Classification III available for qualifying dwellings. The retention of the category allows

¹²¹ MPCA Comment, at 49.

¹²² Exhibit 8, Fyle 3/19/99 letter.

¹²³ MPCA Comment, at 50.

installation of an ISTS system in areas where a larger system is unsuitable. The MPCA has demonstrated the rule part to be needed and reasonable.

7080.0130 SEWAGE TANKS

Subpart 2. Design of septic tanks.

119. The standards for sewage tanks are set out in part 7080.0130. Aitkin County questioned whether the 6-inch standard for outlet pipes was a maximum or minimum (and urged setting the standard as a minimum to avoid inadvertent inspection failure).¹²⁴ Dakota County suggested that larger tanks following smaller tanks (prohibited on new installations) be allowed for upgrading existing systems. MDOH suggested outlet pipe composition be limited to cast iron or plastic. In response to these comments, the MPCA made the following changes to subpart 2:

7080.0130 subp 2 L. The nearest point on the inlet baffles, other than sanitary tees, shall be no less than six inches ~~or~~ and no more than 12 inches from the end of the inlet pipe to the nearest point on the baffle. The nearest point on the outlet baffles baffle, other than sanitary tees, shall be no closer than six inches and no more than 12 inches measured from the beginning of the outlet pipe to the nearest point on the baffle. Sanitary tees used as inlet or outlet baffles shall be at least four inches in diameter.

* * *

7080.0130 subp. 2 O 3. (3) For new construction, the first tank shall be equal to or larger than any subsequent tank in the series.

* * *

7080.0130 subp. 2 P. Outlet pipe from septic tank.:

(1) The design, construction, and location shall comply with the Minnesota Plumbing Code, chapter 4715. Only polyvinyl chloride (PVC) plastic pipe meeting the specification methods and testing protocol described in chapter 4715.0530 and 4715.2820 shall be used. The outlet pipe from the septic tank must not be cast iron

(2) The outlet pipe extending from the septic tank must be of sound and durable construction, and not subject to corrosion or decay. . . .

120. The new language addresses specific problems identified with the rule as proposed. The changes conform the rule to suggestions made by commentators and other altered language in related parts of the rule. The rule as modified is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

¹²⁴ Exhibit 8, Aitkin County 2/26/99 letter.

Subpart 3. Liquid capacity of septic tanks.

121. Subpart 3 requires use of an effluent screen at the septic tank outlet where the ISTS system is designed with a garbage disposal. The Metropolitan Council urged requiring effluent screens for all new systems, to provide for later installation of garbage disposals.¹²⁵ Larry Fyle and others objected to this requirement as insufficient to replace a 1,000-gallon tank.¹²⁶ The MPCA reconsidered the issue and made changes to the rule, including deletion of subpart 17a of part 7080.0020 (defining gas deflecting baffle) and modifying subpart 3 as follows:

7080.0130 subp. 3-G. B. Garbage disposals. If a garbage disposal unit is anticipated or installed in a dwelling or other establishment, the septic tank capacity must be at least 50 percent greater than that required in item A or B, subitem (1) or (2), and must include either multiple compartments or, multiple tanks must be provided, or an effluent screen at the outlet end of the last septic tank.

7080.0130 subp. 3 C (3) A dosing volume of up to five percent of the liquid capacity required under item A of the first tank or compartment of multiple tanks or compartment installations is allowed if an effluent screen is installed at the outlet end of the last septic tank.

7080.0600 subp 4. (3) An effluent screen shall be used on the last septic tank prior to discharge to a soil treatment system. For Laundromats, the outlet baffle of all septic tanks and baffles between compartments must be submerged to a depth of 50 percent of the liquid depth of the tank.

122. The MPCA supported these changes as needed to eliminate potential problems. Use of effluent screens is not expressly prohibited, but the device is not required.¹²⁷ Requiring either screens or multiple tanks would significantly increase actual costs to meet a potential later need. The MPCA has demonstrated the modified rule to be needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 4. Location of sewage tanks.

123. Dakota County urged that the top of the tank shall be installed no deeper than 4 feet from final grade and that LGUs be allowed to apply this standard to replacement systems.¹²⁸ The MPCA acknowledged the worth of such rule language, but reiterated that the rule was a minimum code.¹²⁹ "Accessible" was concluded to be a sufficient standard for the rule, but restated that any LGU can adopt a more stringent

¹²⁵ Exhibit 8, Metropolitan Council 3/9/99 letter

¹²⁶ Exhibit 8, Fyle 3/19/99 letter.

¹²⁷ MPCA Comment, at 53.

¹²⁸ Exhibit 8, Dakota County 3/31/99 letter.

¹²⁹ MPCA Comment, at 54.

standard.¹³⁰ Jason Peterson suggested the Building Code is inconsistent with prohibitions against ISTS systems near some public waters.¹³¹ The MPCA pointed out that variance provisions were available or an LGU can adopt a standard by ordinance to cover the situation.¹³² Subpart 4 is needed and reasonable as proposed.

Subpart 6. Aerobic systems.

124. James Baker, Factory Representative for Multi-Flo Waste Treatment Systems, suggested deleting the reference to Class II systems in subpart 6 because "There are no systems approved under Class 2."¹³³ The MPCA declined to make that change, noting that Class II systems remain in the National Sanitation Foundation standards.¹³⁴ Subpart 6 is needed and reasonable as proposed.

7080.0150 DISTRIBUTION OF EFFLUENT

Subpart 1. General.

125. The standards for movement of effluent from septic tanks to distribution in the drainage field are set in part 7080.0150. The MPCA noted that changing item B would reduce the potential for maintenance problems in the future. The MPCA modified the rule to read:

B. Supply pipes and distribution pipes must meet the strength requirements of American Society for Testing and Materials (ASTM), schedule 40 plastic pipe, and be supported in a manner so that there is no deflection or longitudinal bending during the backfilling and subsequent settling of the soil.

126. The new language incorporates terms used in the industry to clarify what outcomes are to be avoided during installation. Eliminating these outcomes is needed to reduce the likelihood of frozen piping and ensuing sewage backups. The subpart is needed and reasonable as modified. The new language is not substantially different from the rule as published in the *State Register*.

7080.0150, subpart 3 A (3). Various changes to tables.

7080.0170, subpart 1 F.

7080.0170, subpart 2 C (1) (b).

127. To provide standards that are easier to apply by inspectors and LGUs, the MPCA has included a number of tables detailing information needed in installing ISTS systems. Through this rulemaking, a number of typographical errors were found and suggested improvements were made to these tables. The tables, as modified, are

¹³⁰ *Id.*

¹³¹ Exhibit 8, Martindale 2/25/99 email.

¹³² MPCA Comment, at 54.

¹³³ Transcript, Volume 1, at 64.

¹³⁴ MPCA Comment, at 54.

needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 3. Pressure distribution.

128. Pumpco noted that the rule on pressure distribution of effluent required drilling a hole into the end cap, but many perforated pipes do not include such end caps. The MPCA modified the rule to read:

7080.0150, subp. 3 E. Perforation holes must be drilled straight into the pipe and not at an angle. The perforated pipe laterals must be installed level with the perforations downward. Perforation holes must be free of burrs. Holes shall be spaced no more than five feet apart. One perforation must be drilled into the upper portion of the end cap to allow for the introduction of A method to introduce air into the pipe after dosing must be provided.

129. The new language comports with the most current technology used in pressure distribution systems. The rule as modified is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

7080.0160 DOSING OF EFFLUENT

Subpart 1a. Dosing chamber, pump pit, wet well, or lift station.

130. Part 7080.0160 sets out the standards for dosing effluent. Dosing is the movement of effluent in controlled amounts through the ISTS system. Where pumps are used to accomplish the movement, the proposed rule required the pump inlet be at least three inches above the bottom of the chamber to prevent solids from interfering with pumping mechanism. Cass County suggested requiring the pump be placed on a concrete block with at least four inches clearance.¹³⁵ The MPCA agreed with the comment and modified the rule to read:

E. The inlet of pumps shall be elevated at least ~~three~~ four inches from the bottom of the dosing chamber or protected in some other manner to ~~protect prevent~~ the pump from drawing in excessive settled solids. The pump, pump controls, and pump discharge line shall be installed ~~so as to be accessible~~ allow access for servicing without entering the dosing chamber.

131. The MPCA added the "other manner" language to allow pump boxes. The MPCA indicated that pump boxes are placed directly on the bottom of the dosing chamber and those devices are effective at protecting the pump from solids.¹³⁶ The rule

¹³⁵ Exhibit 15.

¹³⁶ MPCA Comment, at 59.

is needed and reasonable as modified. The new language is not substantially different from the rule as published in the *State Register*.

7080.0170 FINAL TREATMENT AND DISPOSAL

Subpart 1. In general.

132. After movement through the septic tank and any other required treatment systems, part 7080.0170 requires the dispersal of treated effluent into the soil. The rule part sets out the specific requirements that must be met by the soil disposal portion of an ISTS system. David Gustafson, P.E., indicated that diversion of surface water is a feature that should be required for all systems.¹³⁷ The MPCA agreed and modified item C of subpart 1 as follows:

C. Soil treatment systems shall not be placed in floodways. Soil treatment systems may be installed in flood fringes must meet the requirements in accordance with part 7080.0172, subpart 1. Soil treatment systems should not be placed in areas subject to excessive runoff. All soil treatment systems located on slopes greater than one percent must have a diversion constructed immediately upslope from the system to intercept and direct runoff.

133. In addition, the MPCA deleted subpart 5 B(24) and subpart 6 C(9) since these provisions set different standards for when surface water diversion is required. The rule as modified is needed and reasonable to improve the performance of ISTS systems over time. The new language is not substantially different from the rule as published in the *State Register*.

134. Cass County indicated that the lower limit of biochemical oxygen demand (BOD) should be raised from 175 to 300 to reflect the lack of need for pretreatment of waste generated by households, as opposed to "high strength waste" from commercial facilities.¹³⁸ The MPCA noted that the scientific texts on the issue indicated a range of values and that Wisconsin is considering an upper value of 220 mg/L BOD.¹³⁹ Relying on these facts, the MPCA modified item D to read as follows:

D. Before discharge to a soil treatment system designed under this part, the pretreated effluent shall have a biochemical oxygen demand of ~~175~~ 220 or less and a total suspended solids concentration of 65 mg/1 or less and an oil and grease concentration of 30 mg/1 or less.

135. The modified BOD standard has been supported by scientific literature and is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

¹³⁷ Exhibit 8, Gustafson 3/31/99 letter.

¹³⁸ Exhibit 15, at 2.

¹³⁹ MPCA Comment, at 62, Attachment 22.

Subpart 2. Trenches and seepage beds.

136. The proper distribution of treated effluent into the soil for disposal relies heavily on the type of soils present in the drainage field. Where soils are more suitable for disposal, less area is required to absorb an equivalent amount of effluent. To aid in the installation of ISTS systems, the MPCA has provided charts referencing the trench size required by particular soil types. This approach was criticized as insufficient to accurately identify soils and that analysis by soil scientists should be required instead.¹⁴⁰ Kevin Kloepfner indicated that the normal training provided is insufficient for soil identification and could harm consumers.¹⁴¹ MDOH questioned whether more training in soil identification and more detailed charts would be required or provided.¹⁴² The MPCA responded to these comments as follows:

The agency believes that this determination can be made by non-soil scientists, as it is being done in other states. The chart may be intimidating as far as the number of soil textures that are required to be identified, but is not intimidating as to identifying the soil structure. The identification of structure is only on the percent of the structural units (i.e., "peds") that are cohesive enough to withstand rupture upon handling. The shape of the structure is not required to be identified, except in the case of platy structure. Platy structure can be identified by the presence of a white "bleached" layer near the ground surface in soils with trees growing on them. The agency will include at its revised workshop on site evaluations a detailed description on how to determine the percent cohesive peds. In addition the chart was designed to be conservative in nature until the industry is comfortable and confident in making this determination. If the designer believes the sizing is too conservative, he/she can conduct a percolation test to determine if the system size, based on table Va, can be reduced. It is also the agency's belief that in many areas the percolation test is not being done, but sizing is being based on the soil texture noted during the borings. This is due to the large time commitment to conduct the percolation test. Basing sizing on soil texture alone is not a sound practice, and must be supplemented by a structure determination or the percolation test. Therefore, in effect, the proposed Table Va legitimizes but strengthens the use of a current practice, with the necessary safeguard of using soil structure.¹⁴³

137. The MPCA has demonstrated reliance on the soil charts as needed and reasonable. As discussed in a foregoing finding, the MPCA reorganized the chart to aid in its application to soils. The MPCA agreed with a comment by Aitkin County that expressly requiring an undisturbed sample is required if charts are to be relied upon. To

¹⁴⁰ Exhibit 8, Carlton County 3/22/99 letter; Insight Septic 3/29/99 letter.

¹⁴¹ Exhibit 8, Kloepfner 3/17/99 email.

¹⁴² Exhibit 8, MDOH 3/30/99 letter.

¹⁴³ MPCA Comment, at 64.

include this requirement, the MPCA modified subpart 2 to include the following language in item C:

....design report. Soil sizing determined using Table Va must be based on an undisturbed soil sample from which an evaluation of the soil structure can be made. The trench . . .

138. The same language was included in subpart 4 D(7) for consistency. The modified items are needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

139. Table Va allows determination of trench sizing or the absorption ratio (for mound systems) by identification of soil texture and soil structure. David Gustafson, P.E., objected to mixing these two criteria as raising the potential for problems.¹⁴⁴ The MPCA has tested the methodology required by Table Va and determined that the approach is effective to assess the absorption of soil without using a percolation test.¹⁴⁵ Use of the table has been demonstrated to be needed and reasonable. The modifications to the table do not result in language substantially different from the rule as published in the *State Register*.

Subpart 4. Rapidly permeable soils.

140. The MPCA indicated that the standard for distribution of effluent into rapidly permeable soils needed clarification to ensure that an appropriate amount and texture of soil is present between the distribution medium and the end of absorbing soils. Therefore, the MPCA altered item A to read:

7080.0170 subp. 4 A. Three feet of soil with a texture or medium sand or finer must exist immediately below the distribution medium. Soil treatment systems placed in soils absorption areas with a soil sizing factor of 0.83 gallons per day per square foot in Table V or Va. percolation rate of 0.1 to five minutes per inch that is not a fine sand (Table V) or soil absorption areas with a soil texture of sand or loamy sand (Table Va) must provide use at least one of the following treatment techniques:

141. The modified language clarifies the standard that must be met in rapidly permeable soils. The subpart as modified has been demonstrated to be needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 5. Mounds.

142. Insight Septic noted that the training for system installation emphasizes the cleanliness of sand. The commentator urged that the mound requirement for the quality

¹⁴⁴ Exhibit 8, Gustafson 3/31/99 letter.

¹⁴⁵ SONAR, at 88.

of sand be modified to ensure that trenches are not clogged.¹⁴⁶ The MPCA acknowledged the worth of the suggestion but indicated that the imposition of a cleaner standard would impose a hardship on installers.¹⁴⁷ The MPCA has considered the various impacts of modifying the rule and demonstrated the sand standard to be needed and reasonable.

143. Crow Wing County indicated that two subitems conflict regarding the standards for placement of sand. The MPCA agreed that more clarity was needed and modified subpart 5 B (3) and (14) to read:

(3) A minimum of 12 inches of clean sand must be placed where the rock bed is to be located. Clean sand shall consist of sound, durable material that conforms to the following requirements.

* * *

(14) A minimum of 12 inches of clean sand must be placed where the rock bed is to be located. Clean sand must come into contact with the bottom of the rock bed and must cover the entire absorption area.

144. The modifications to the two items clarify the sand placement requirements. The items as modified have been demonstrated to be needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

145. Carlton County indicated that no problems have been experienced with mounds built with 10 foot wide rockbeds on soils with a certain percolation range. The rule as proposed would require a different design for such systems. The MPCA discussed the issue with the Advisory Committee and agreed to modify the rule as follows:

(1) Rock bed width shall be calculated by multiplying the linear loading rate by 0.83. The width of the rockbed width shall not exceed 10 feet. The linear loading rate shall be determined by the relationship between vertical and horizontal water movement in the original soil of the absorption area. .

(2) The system should be as long and narrow as practical and the width of a single the rock bed must not exceed ten feet. If the soil within the upper foot of the absorption area has a soil sizing factor of 3.2 square feet per gallon per day or greater as described in subpart 2, item C, Table Va, or has a percolation rate slower than 60 minutes per inch, the rock bed length shall be determined by dividing the average design flow by 4.5 and the rock bed width determined by dividing the bottom area by the rock bed length.

¹⁴⁶ Exhibit 8, Insight Septic 3/29/99 letter.

¹⁴⁷ MPCA Comment, at 70; SONAR, at 94.

146. The MPCA also modified subpart 6 to conform that rule to the new language. Subpart 6 is modified to read:

~~7080.0170 subp. 6 B (1) Rock bed absorption width shall be calculated by multiplying the linear loading rate. The bottom area of the rock bed shall be calculated by multiplying the average design flow by the soil sizing factor as identified in subpart 2, item C, Table V, or using the percolation rate or soil sizing factors in subpart 2, item C, Table Va of the upper 12 inches of soil in the proposed absorption area. The linear loading rate shall be between two and eight gpd/ft as determined by the relationship between vertical and horizontal water movement in the soil. The system should be as long and narrow as practical but the rock bed absorption width shall be no greater than ten feet. If the soil within the upper foot of the absorption area has a soil sizing factor of 3.2 square feet per gallon per day or greater as described in subpart 2, item C, Table Va, or has a percolation rate slower than 60 minutes per inch, the rock bed length shall be determined by dividing the average design flow by 4.5 and the rock bed width determined by dividing the bottom area by the rock bed length. The total rock bed width for sloping ground shall consist of the rock bed absorption width plus enough rock on the upslope side to provide stability.~~

147. The modifications to subparts 5 and 6 allow continued use of a mound design that has proven effective as an ISTS system. The rule as modified is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

148. Aitkin County indicated that the mound absorption width was being improperly calculated under subpart 5.¹⁴⁸ The MPCA responded that other factors must be considered before the final mound width can be determined.¹⁴⁹ The MPCA has demonstrated the methodology for calculating mound width to be needed and reasonable.

Subpart 6. At-grade systems.

149. Dave Gustafson, P.E., noted that systems are required to be "long and narrow" but that the rule lacks "clear guidance" as to what that means.¹⁵⁰ The commentator suggested including the linear loading rate in the rule to provide a basis for properly designed systems. The MPCA agreed with the suggestion and modified subpart 6 to read:

(1) Rock bed absorption width shall be calculated by multiplying the linear loading rate. The bottom area of the rock bed shall be calculated by multiplying the average design flow by the soil sizing factor as identified in subpart 2, item C, Table V, or using the percolation rate or soil sizing

¹⁴⁸ Exhibit 8, Aitkin County 2/26/99 letter.

¹⁴⁹ MPCA Comment, at 72.

¹⁵⁰ Exhibit 8, Gustafson 3/31/99 letter.

factors in subpart 2, item C, Table Va of the upper 12 inches of soil in the proposed absorption area. The linear loading rate shall be between two and eight gpd/ft as determined by the relationship between vertical and horizontal water movement in the soil. The system should be as long and narrow as practical but the rock bed absorption width shall be no greater than ten feet. If the soil within the upper foot of the absorption area has a soil sizing factor of 3.2 square feet per gallon per day or greater as described in subpart 2, item C, Table Va, or has a percolation rate slower than 60 minutes per inch, the rock bed length shall be determined by dividing the average design flow by 4.5 and the rock bed width determined by dividing the bottom area by the rock bed length. The total rock bed width for sloping ground shall consist of the rock bed absorption width plus enough rock on the upslope side to provide stability.

150. The MPCA indicated that the existing linear loading rate numbers "have not been adequately justified. . . ." ¹⁵¹ Therefore, the subpart will retain the long and narrow criteria in its application and use the particular site conditions to determine the geometry of the absorption field. ¹⁵² The rule as modified is needed reasonable. The new language is not substantially different from the rule as published in the *State Register*.

7080.0172 ALTERNATIVE SYSTEMS

151. There are circumstances where treatment and disposal systems cannot be used consistent with environmental factors. In these circumstances, alternative systems are available to handle sewage. Such systems are privies, holding tanks, and greywater systems. Subpart 1 relies upon 10-year flood data for location of systems. A commentator asked what should be done where that data is unavailable. The MPCA modified the item B of subpart 1 to read:

B. Individual sewage treatment systems shall be located on the highest feasible area and shall have location preference over all other improvements except the water supply well. If ten-year flood data are available, the bottom of the distribution medium shall be at least as high as the elevation of the ten-year flood.

152. The modification makes clear that the standard applies only where the data exists. Otherwise the general standard ("highest feasible area") controls. The same modification was made to item D(1). The rule as modified is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 2. Privies.

153. Subpart 2 sets out the standards for privies. Several commentators made suggestions regarding the appropriate capacity for privies. The MPCA responded that

¹⁵¹ MPCA Comment, at 74.

¹⁵² *Id.*

the minimum standard of 25 cubic feet is the existing rule and no problems have been experienced.¹⁵³ Subpart 2 is needed and reasonable as proposed.

Subpart 3. Holding tanks.

154. Holding tanks are similar to privies, in that sewage is not disposed of through the mechanism, only contained until cleaned out by a professional (often referred to as a "pumper"). MDOH suggested that the rule contain standards as to when holding tanks can be used.¹⁵⁴ Carlton County suggested allowing holding tanks only where soil disposal systems could not be used. Aitkin County and David Gustafson, P.E., expressed concerns about how compliance with ongoing waste disposal would be accomplished. Larry Fyle suggested that water meters be included.¹⁵⁵

155. The MPCA responded that LGUs would be responsible for determining whether a holding tank would be an option for a particular site.¹⁵⁶ More protective standards, such as alarms, are available to individual LGUs as part of the local ordinance process.¹⁵⁷ The MPCA acknowledged that LGU involvement in ongoing management of sewage disposal is a burden, but maintains that the burden is needed and reasonable to prevent "midnight pumping" of sewage into public waters.¹⁵⁸

156. The MPCA accepted the suggestion to use a disposal contract between the landowner and a licensed pumper as the disposal plan required under item A. The MPCA modified the rule to read:

A. Holding tanks for new construction are prohibited unless approved by the permitting authority, based on submission of a monitoring and disposal contract plan between the owner and a licensed pumper. The contract must guarantee the removal of the tank contents prior to overflow or any discharge.

157. The modified language accomplishes all the goals sought by requiring a management plan, while adding no new paperwork to any of the parties involved. The rule as modified is needed reasonable. The new language is not substantially different from the rule as published in the *State Register*.

158. Aitkin County indicated that the rule on holding tanks should require an alarm to activate when the holding tank reaches 75 percent capacity. The MPCA agreed and changed item G of subpart 3 accordingly. The modified item reads:

G. Holding tanks shall have an alarm device ~~be monitored~~ to minimize the chance of accidental sewage overflows unless. ~~Techniques such as~~

¹⁵³ MPCA Comment, at 77.

¹⁵⁴ Exhibit 8, MDOH 3/30/99 letter.

¹⁵⁵ Exhibit 8, Fyle 3/19/99 letter.

¹⁵⁶ MPCA Comment, at 77.

¹⁵⁷ *Id.*

¹⁵⁸ MPCA Comment, at 75.

~~visual observation, warning lights or audible alarms, or regularly scheduled pumping shall be is used. Mechanical or electrical monitoring shall identify when the holding tank is at 75% capacity.~~

159. The 75 percent standard is intended to allow the landowner time to arrange for cleanout of the holding tank. The MPCA notes that the requirement for warning lights or audible alarms should be deleted since non-mechanical floats are often used and those devices lack the capability for such a warning.¹⁵⁹ The rule as modified is needed reasonable. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 4. Greywater systems.

160. The MPCA originally intended to eliminate labels for systems such as “standard” and “alternative.” Based on comments received before publishing the rules, the MPCA re-categorized systems. Inadvertently, greywater systems were not categorized as a standard system as the MPCA intended.¹⁶⁰ To achieve this outcome, the MPCA proposed deleting subpart 4 and moving that language to part 7080.0170, subpart 7. The benefits of greywaters systems, such as reducing effluent volumes by 40 percent, support the classification of greywater systems as standard, not alternative. The further changes discussed are to part 7080.0170, subpart 7.

7080.0170, subpart 7. Greywater systems.

161. To conform the treatment of greywater systems to other standard systems, the MPCA proposed changing item A to read:

~~A. Toilets. A toilet waste treatment device shall be used in conjunction with a greywater system. Prohibition. Greywater or garbage shall not be discharged to the any toilet waste treatment device except as specifically recommended by a manufacturer.~~

162. The change is intended to reflect the treatment of greywater as a standard system. The exclusion of greywater from discharge to toilet waste treatment devices reflects the treatment of those devices as plumbing not covered by this part.¹⁶¹ The rule as modified is needed reasonable. The new language is not substantially different from the rule as published in the *State Register*.

163. Pine County urged the modification of the rule to prohibit connection of garbage disposals to greywater systems. The MPCA agreed and modified item B to read:

~~B. Greywater system plumbing. The drainage system in a dwelling or other establishments served by a greywater system shall be based on a~~

¹⁵⁹ MPCA Comment, at 79.

¹⁶⁰ MPCA Comment, at 79.

¹⁶¹ MPCA Comment, at 80.

pipe diameter of two inches to prevent installation of a water flush toilet. There shall be no openings or connections to the drainage system, including floor drains, larger than two inches in diameter. The existing drainage system may be used if a greywater system is to be installed for an existing dwelling. Garbage disposals shall not be connected to the soil treatment system greywater system.

164. The MPCA explained the change as conforming the rule to its subject matter.¹⁶² The modified language clarifies that garbage disposals cannot be connected to the greywater system. The rule as modified is needed reasonable. The new language is not substantially different from the rule as published in the *State Register*.

165. Alaskan objected to the testing requirements of item D as costing \$50,000 for no reason, since its system results in no reduction in the ground disposal area.¹⁶³ The MPCA declined to remove the testing requirement and explained its reasoning as follows:

The rule (RR41.24-26 and RR42.1-5) does not require NSF certification; it does require testing of aerobic units under the conditions proposed by NSF. The agency knows of at least three testing companies that test for NSF. Testing can also be done outside of these companies as long as the NSF conditions are met. These conditions include testing under stress, after power failures, after vacations, etc., to assure continued performance under traditional family use. Testing of the aerobic unit is to show performance; its performance is not considered for soil treatment sizing to be labeled as a standard system. It is allowed as a performance system. Greywater contains significant amounts of pathogens and aerobic tanks are not a passive treatment process so it is reasonable that they be tested. Also, greywater aerobic tanks are followed by downsized soil treatment areas as allowed in rule (RR73.19).¹⁶⁴

166. The imposition of the NSF standard is needed and reasonable for assurance of proper system function under normal use. The rule was modified to correct a cross-reference. The rule is needed and reasonable as modified. Changing a cross-reference does not result in a substantially different rule.

7080.0175 MAINTENANCE

167. Pine County questioned what was meant by "owner's agent" in describing responsibility for maintaining ISTS systems in subpart 2 of part 7080.0175. The MPCA responded that:

¹⁶² MPCA Comment, at 81.

¹⁶³ Exhibit 8, Alaskan 3/26/99 letter.

¹⁶⁴ MPCA Comment, at 81-82.

It is unreasonable to define owner's agent because it may limit owners' flexibility. It may help to understand the agency's viewpoint for each. For RR74.2, the agency states that someone (owner or owner's agent) must regularly check the sewage tank to see if pumping is necessary. Any person can do this work. The owner using a clear plastic tube or towels wrapped around a pole or the owner's neighbor, can conduct this work. This information is published and available (Attachment 6). The agency recommends all counties distribute this guide to ISTS owners. A pumper may also do this work; it is part of their responsibilities if called to make that determination (RR120.15-17).

For RR74.17, the agency states that someone (owner or owner's agent) must install maintenance holes for maintenance. Any person can do this work. The owner or a friend of the owner, etc., can install their own maintenance holes and risers to save money. Owner's agent may also include a pumper because it is also listed as part of the responsibilities as described above.

For RR74.20, the agency states that someone (owner or owner's agent) shall operate a toilet waste treatment device. This person could be the owner, a visitor, a neighbor, etc. If detailed operation is needed, perhaps a distributors trained agent could do the work. If septage is removed it falls under the pumper's responsibilities again as listed above.¹⁶⁵

168. The MPCA demonstrated that allowing flexibility in the rule relieves landowners of potentially large maintenance costs. The MPCA noted that LGUs are capable of adopting more restrictive ordinances if circumstances demonstrate a need for regulation.¹⁶⁶ Use of "owner's agent" in the rule is needed and reasonable.

169. The maintenance standard for assessing leaks in subpart 2 was criticized by Aitkin County as allowing leaks. The MPCA acknowledged that watertight components are required at levels above the designed operating depth and modified the rule to read:

A. assess whether the sewage tank leaks below the liquid capacity designed operating depth and whether sewage tank tops, riser joints, and riser connections leak through visual evidence of major defects; and

170. The new language removes a potential ambiguity in the rule and is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 3. Removal of material.

¹⁶⁵ MPCA Comment, at 83.

¹⁶⁶ *Id.* at 82.

171. MDOH questioned whether subpart 3 requires the installation of maintenance holes on existing septic tanks or whether only new installation is affected.¹⁶⁷ The MPCA acknowledged that the rule was ambiguous on this issue and modified item C of the subpart to read:

C. *If no maintenance hole exists on a sewage tank, the owner or the owner's agent shall install maintenance holes in sewage tanks in accordance with part 7080.0130, subpart 2, item M, subitem (1), to allow for maintenance to take place through the maintenance hole. If the owner or owner's agent refuses to allow the removal through a maintenance hole, the licensed pumper must obtain a signed statement from the owner or owner's agent that they were informed of correct removal procedures and the reason for refusal.*

172. The MPCA explained that the installation is usually done in existing installations, but the rule was not intended to require installation on a failing system.¹⁶⁸ The added language regarding pumpers and the signed statement of the owner or owner's agent resolves potential problems arising in cleanout where maintenance holes are lacking. The rule is needed and reasonable as modified. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 4. Toilet waste treatment devices.

173. Carlton County indicated that privies needed to be included in the toilet waste treatment device standard. These systems are most commonly used with greywater systems to provide for sewage disposal in some areas.¹⁶⁹ The MPCA noted that the absence of a reference to the primitive dwelling standards for toilet waste treatment was a "void in the rule."¹⁷⁰ The MPCA proposed the following modified language:

Subp. 4. *Toilet waste treatment devices. The owner or owner's agent shall operate a toilet waste treatment device in accordance with manufacturer's requirements. For primitive dwellings and dwellings using toilet waste treatment devices in low density areas, septage disposal shall not be to surface waters, drainageways or in a manner or volume harmful to the environment or public health or that creates a nuisance if allowed under local ordinance. For all other uses of toilet waste treatment devices, septage disposal must meet the requirements of subpart 6.*

174. The approach of the rule change is to treat primitive dwellings with greywater systems less restrictively and impose pumping and disposal standards on facilities with larger quantities of waste. The rule as modified is needed and reasonable.

¹⁶⁷ Exhibit 8, MDOH 3/30/99 letter.

¹⁶⁸ MPCA Comment, at 84.

¹⁶⁹ Exhibit 8, Carlton County 3/22/99 letter.

¹⁷⁰ MPCA Comment, at 75.

The new language is not substantially different from the rule as published in the *State Register*.

Subpart 5. Additives.

175. Aitkin County urged that the MPCA retain the standards on accumulation of solids in pump stations and other devices. The MPCA declined to alter its deletion of the language and explained that:

Solids in pump stations, distribution devices, valve boxes and drop boxes are all a part of the definition of septage (RR.16.5-7). In addition, the deleted rule language implied that a pumper must uncover distribution devices, valve and drop boxes and evaluate whether solids are present on a three-year basis. This was not intended, especially because they are designed to be buried with no inspection pipes coming to the surface and no maintenance holes.¹⁷¹

176. The proposed deletion of language is needed and reasonable to prevent the unintended and unduly expensive consequence of unearthing the disposal field.

Subpart 6. Septage disposal.

177. MDOH suggested that subpart 6 contain a reference to statewide standards for septage disposal. The MPCA declined to change the rule and explained its decision as follows:

Many federal regulations describe septage and sludge requirements. These regulations vary on intermixture of septage and sludge with other wastes. The state rule (Minn. R. ch. 7041) addresses sludge disposal and septage disposal only for municipal wastewater treatment facilities. There is no state rule specifically addressing ISTS septage disposal requirements for individual systems. The agency has recommended land application guidelines that are taught at the pumper workshops and some LGUs have adopted septage requirements into local ordinance. The agency may adopt rules for ISTS septage management; however, it is not currently an agency priority.¹⁷²

178. The MPCA indicates that there is no statewide standard to apply for septage disposal. The disposal rule, allowing disposal according to whatever standard is applicable, is needed and reasonable.

Subpart 8. System rejuvenation.

179. Aitkin County indicated that the language in item A of subpart 8 restricted use of aerobic tanks, sand filters, or other performance-based devices when such

¹⁷¹ MPCA Comment, at 84.

¹⁷² MPCA Comment, at 85.

devices could extend the useful life of failing systems.¹⁷³ The MPCA acknowledged that the intent of the rule was not to exclude the use of such devices under the standards of part 7080.0179 (governing performance-based systems). The MPCA proposed a change to item A as follows:

~~(1) A. not be used on failing systems, unless the activity meets part 7080.0179 requirements;~~

180. The new language conforms the rule to the agency's intent. The rule as modified is needed reasonable. The new language is not substantially different from the rule as published in the *State Register*.

7080.0176 SYSTEM ABANDONMENT

Subpart 1. Tank abandonment.

181. When ISTS systems are no longer used, the potential for adverse environmental impact remains. Part 7080.0176 establishes standards to be followed when abandonment occurs. Carlton County objected to the proposed deletion of dry wells from the existing subpart 1 of the rule. The MPCA noted that the deletion was a mistake and altered the rule to read:

A. Subpart 1. Tank abandonment. Tank abandonment procedures for sewage tanks, cesspools, leaching pits, drywells, seepage pits, vault privies, pit privies not serving primitive dwellings, and distribution devices are as follows:

182. The inclusion of pit privies not serving primitive dwelling is intended to address the presence of such systems where larger volumes of waste are encountered. The MPCA also corrected a cross-reference and expressly allowed removal of tanks in other items in subpart 1. The rule as modified is needed reasonable. The new language is not substantially different from the rule as published in the *State Register*.

7080.0178 OTHER SYSTEMS

183. The MPCA based this rulemaking on having two different tracks for approving use of ISTS systems. Standards-based approval establishes categories of appropriate systems and the manner in which those systems are installed and used. Performance-based systems are designed on a case-by-case basis and allowed under permit. Proposed rule parts 7080.0178 and 7080.0179 set out the standards that these systems must meet. MDOH suggested that the rule does not provide "adequate minimum standards" to assure equivalent treatment to standards-based systems.¹⁷⁴ MDOH also "strongly encouraged" MPCA to take a direct role in the approval and monitoring of performance-based systems. The MPCA has relied upon the Advisory

¹⁷³ Exhibit 8, Aitkin County 2/26/99 letter.

¹⁷⁴ Exhibit 8, MDOH 3/30/99 letter.

Committee in its performance-based approach.¹⁷⁵ Relying upon LGUs for approval and monitoring is a matter of agency policy.¹⁷⁶ No facts have been identified in this rulemaking that render the proposed rule defective.

7080.0179 PERFORMANCE

Subpart 1. Incorporation by reference of this part.

184. The MPCA recognizes that allowing performance-based systems places a substantial burden on LGUs in design review, permitting, inspection, and monitoring. To ensure that LGUs are knowingly entering into the process, subpart 1 of part 7080.0179 expressly exempts the performance-based standards from an existing adoption by reference of the MPCA's ISTS rules. Carlton County pointed out that language in the middle of the subpart appears to exclude standards-based provisions from existing adoption by reference. The MPCA acknowledged that the identified language is unnecessary to the effect of the rule and modified subpart 1 to read:

Subpart 1. Incorporation by reference of this part. Past or current incorporation by reference of this chapter into a local ordinance of the minimum technical standards and criteria for individual sewage treatment systems does not include adoption of this part. If a local unit of government chooses to adopt this part, it must do so expressly. The local unit of government may use the following format: "Minnesota Rules, part 7080.0179, is incorporated by reference into Ordinance....."

185. The modification clarifies the effect of the subpart. As modified, the subpart is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

186. David Gustafson, P.E. and MDOH urged adoption of specific limitations on BOD, TSS (Total Suspended Solids), and fecal coliform. The MPCA responded that after discussing the issue with the Advisory Committee, the agency concluded that "the performance standards should remain flexible and open since research is still being gathered on pretreated effluent discharges, loading rates, varied vertical separations, and distribution methods."¹⁷⁷ The MPCA's approach is needed and reasonable.

Subpart 2. Performance Systems.

187. Multi-Flo inquired about required separation, particularly since the quality of aerobically treated effluent was not suitable to smaller separations.¹⁷⁸ MDOH requested clarification on the fecal organism standard. Aitkin County inquired as to whether human and animal wastes are included in the standard. Cass County suggested using a measurement of effluent fecal concentrations with the acceptable loading rates with

¹⁷⁵ MPCA Comment, at 86.

¹⁷⁶ *Id.*

¹⁷⁷ MPCA Comment, at 89.

¹⁷⁸ Transcript, Volume 1, at 69.

soil textures to arrive at an acceptable vertical separation distance. To address these suggestions, MPCA deleted the design requirement for vertical separation in item C(1). The rule as modified reads:

(1) Soil ~~dispersal~~ treatment systems must be designed with a minimum of one foot of vertical separation distance appropriate for the sewage treatment system designs, effluent quality, loading rates, loading methods, soil conditions and other site-specific considerations as established in the operating permit. An unsaturated zone must be maintained between the bottom of the soil treatment ~~dispersal~~ system and the seasonally saturated soil or bedrock during loading of effluent. The following compliance limits are based on measurements within the sewage effluent plume.

(2) The sewage effluent/groundwater mixture shall contain: ~~(a) no viable fecal organisms from the system, 25 feet horizontally from the soil dispersal treatment area, or (b) concentrations of viable fecal organisms from human sources and shall not exceed background concentrations 25 feet horizontally from the soil dispersal treatment area. These~~ This limits shall not be exceeded during typical periods of climatic stress and/or under maximum designed flow volumes.

188. The MPCA agrees with the objections to the vertical separation standard, noting that "performance can vary greatly"¹⁷⁹ The MPCA also relied upon data from the University of Wisconsin supporting the inability of setting a single standard.¹⁸⁰ The modification to the rule requires designers to consider the circumstances of the performance system in determining the minimum vertical separation. The MPCA discussed the possibility of using alternatives to pathogen measurement, but concluded that no rule changes were appropriate.¹⁸¹ The rule as modified is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

189. Aitkin County suggested that the phosphorus standard for performance systems should be expanded from lakes to "protective waters," so that other bodies of water would be protected. The MPCA explained that the phosphorus standard applies only to lakes and described the methodologies used to make these measurements.¹⁸² Cass County suggested subitems (3) and (4) be deleted since the requirements imposed on performance-based systems would be higher than those imposed on standards-based systems. The MPCA responded that:

Performance systems are not being held to a higher standard. Standard ISTS when designed, constructed and maintained properly meet these standards. As with any system, there are times when this might not be the

¹⁷⁹ MPCA Comment, at 91.

¹⁸⁰ MPCA Comment, Attachment 19.

¹⁸¹ MPCA Comment, at 91, Attachments 7 and 22

¹⁸² MPCA Comment, at 92.

case; that is the reason for the standard system's requirement for a 3-foot vertical separation and horizontal setbacks.

The justification for 3 feet has been reviewed and discussed and its reasonableness previously established. As a brief summary, 3 feet of vertical separation provides reasonable risk protection for public health under most conditions that occur. More vertical separation is needed for less risk. Climatic stresses are recognized when establishing the 3 foot requirement. Standard systems also have horizontal setback requirements to protect public health and the environment (e.g., setbacks from wells and waterways). Nitrogen not treated in a standard system can move in the groundwater as nitrate; setbacks, good site evaluations and designs and good well construction are keys to public health protection. Setbacks to waterways are key to protection from phosphorus. The standards are not arbitrary; they are well-established standards for environmental protection.¹⁸³

190. Kevin Kloepfner indicated that the rule needed to specify protocols for sampling, testing methods, storage, transportation, and lab qualifications.¹⁸⁴ The MPCA indicated that others had made this request, but the policy underlying performance systems is to allow the ISTS industry to implement and establish controls on how systems will meet the performance-based standards.¹⁸⁵ The MPCA's approach has been demonstrated to be needed and reasonable, since the purpose of the performance-based approach is to encourage as-yet unknown technologies.

191. Clint Elston and MDOH suggested that a nitrogen standard be added for performance-based systems. The MPCA indicated that Wisconsin has been unsuccessful in attempting to impose such a standard over the last two years.¹⁸⁶ The MPCA also urged LGUs to monitor nitrate levels and establish a nitrate standard where appropriate. No commentator has demonstrated that the lack of a nitrate standard is a defect in the proposed rule.

192. Cass County suggested that the language allowing LGUs to enact a nitrate standard should also allow LGUs to adopt other standards to protect local resources. The MPCA agreed and modified item C(4) to read:

(4) Local units of government may enact nitrogen standards for sewage effluent/groundwater plumes from an ISTS. Local units of government may also require additional standards for local resource protection.

193. The modified language recognizes that substances other than nitrogen may become recognized as important for regulation. The rule as modified is needed and

¹⁸³ MPCA Comment, at 92.

¹⁸⁴ Exhibit 8, Kloepfner 3/17/99 email.

¹⁸⁵ MPCA Comment, at 93.

¹⁸⁶ MPCA Comment, at 93.

reasonable. The new language is not substantially different from the rule as published in the *State Register*.

7080.0305 GENERAL REQUIREMENTS FOR LOCAL ORDINANCES

Subpart 1. Compliance with this chapter.

194. Minn. Stat. § 115.55, subd. 2, requires counties to adopt ISTS ordinances "unless all towns and cities in the county have adopted such ordinances." Part 7080.0305 implements those statutory requirements. MDOH questioned whether the rule fully covered counties where some land is not part of an incorporated city or town with a local ordinance. The MPCA responded that the rule as proposed did not communicate the statutory requirement adequately.¹⁸⁷ The MPCA proposed the following change to the rule:

All counties must adopt ordinances that comply with this chapter unless all towns and cities in the county have adopted local ordinances that also comply with this chapter and are as strict as the applicable county ordinance.

195. The subpart as modified comports with the statutory requirement and is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 2. General requirements for county, town and city local ordinances.

196. Aitkin County suggested that the language of subpart 2 C. was unclear.¹⁸⁸ The MPCA agreed that the term "existing" is unnecessary since the rule identifies systems built prior to April 1, 1996 in non-SWF as those subject to the particular standard. The MPCA proposed to delete "existing" from the item. The rule as modified is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 3. Variances.

197. Pine County objected to the possibility for local ordinances to vary from the MPCA standard. The MPCA noted that Minn. Stat. § 115.55, subds. 5a (e)-(f) and 7, expressly allow LGUs to adopt ordinances varying from the minimum code.¹⁸⁹ The MPCA also related the circumstances under which variance from the rule can be granted by an LGU and that no variance can be granted for required vertical

¹⁸⁷ MPCA Comment, at 95.

¹⁸⁸ Exhibit 8, Aitkin County 2/26/99 letter.

¹⁸⁹ MPCA Comment, at 96.

separation.¹⁹⁰ The rule is consistent with the governing statute and is both needed and reasonable.

198. The MPCA noted that with the adoption of standards for vertical separation of less than three feet, no variance is required to obtain approval of that lesser vertical separation.¹⁹¹ The MPCA modified item B of subpart 3 to reflect this situation and the new rule reads as follows:

B. Variances to technical standards and criteria, except for the required vertical separation, may be granted by the local unit of government if applicable local variance procedures are followed. Less restrictive vertical separation is allowed only if the requirements of Minnesota Statutes, section 115.55, subdivision 7 or 8, are met or if the requirements in part 7080.0179 are met. ~~must be granted under ordinance provisions meeting the requirements of part 7080.0179, or granted a variance under part 7080.0030, subpart 3.~~

199. The rule is consistent with the governing statute and is both needed and reasonable. The rule change clarifies the relationship between variances and required standards for vertical separation. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 4. Administrative requirements for local ordinances.

200. The Minnesota Association of Realtors questioned why the rule appears to treat the same subject matter (failing systems and noncompliant systems) in two different parts of the rule.¹⁹² The MPCA responded that the rule was divided along lines of how the rule is administered.¹⁹³ The MPCA acknowledged that the statutory requirements created some complications for determining when inspections are required or how soon failing systems must be remedied. The MPCA provided a chart in its comment to aid in resolving the questions raised.¹⁹⁴ There was no defect identified in the subpart. Item G was modified by the MPCA to clarify that there is no exemption from the abandonment requirements where central collection and treatment of sewage becomes available and the ISTS system is no longer used by the homeowner.¹⁹⁵ The rule as modified is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

7080.0310 PERMIT PROGRAM FOR ISTS

Subpart 3. Permit approval requirements and procedures.

¹⁹⁰ *Id.*

¹⁹¹ MPCA Comment, at 96.

¹⁹² Exhibit 8, MN Association of Realtors 1/19/99 letter.

¹⁹³ MPCA Comment, at 98.

¹⁹⁴ *Id.* at 98-99.

¹⁹⁵ MPCA Comment, at 99.

201. Pine County pointed out that the term "preliminary" as used in item B of subpart 3 did not accurately reflect the status of the permit request. The MPCA agreed and modified the rule as follows:

B. The local unit of government will ~~either grant preliminary approval or denial~~ must review and approve or deny the application. Construction shall not be initiated until a permit ~~preliminary approval~~ is granted. Final approval shall be evidenced by issuance of a certificate of compliance.

202. The MPCA explained the rule change as needed and reasonable because it "matches the methods implemented by LGUs."¹⁹⁶ The rule as modified is needed and reasonable to conform the rule to the existing permit process. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 5. Reporting requirements.

203. LGUs that issue permits are required under subpart 5 of part 7080.0310 to issue an annual report that demonstrates enforcement of the ISTS rules. MDOH suggested that "alternative systems" included as a specific listing in the report. The MPCA explained that the term had originally been deleted throughout the rule and now was reinstated.¹⁹⁷ Since the term is now back in the rules, the MPCA proposed to change item D to read:

D. the number and type of ~~alternative and experimental systems, and the monitoring results for experimental systems as specified in part 7080.0910, subpart 3a.~~ systems, including number of mound systems; at-grade systems; seepage beds; gravelless, chamber, and drainfield rock trenches; ~~alternative, warrantied and performance systems; and other systems; estimated total number of systems and estimated % in compliance within their jurisdictional boundaries; and~~

204. Modifying the rule to include alternative systems in the comprehensive annual report ensures that all ISTS systems are catalogued and is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 6. Operating permit.

205. Aitkin County suggested that requirements for an operating permit were too difficult and as a result, use of performance-based systems would be discouraged. The MPCA discussed the suggestion with the Advisory Committee. Cass, St. Louis, and Rice counties and the jurisdiction of the Metropolitan Council were identified as locations where the permitting process is currently working.¹⁹⁸ The MPCA noted that LGUs are not required to allow performance-based systems and excluding such

¹⁹⁶ MPCA Comment, at 103.

¹⁹⁷ MPCA Comment, at 103-104.

¹⁹⁸ MPCA Comment, at 104.

systems completely avoids the burden of permitting. Monitoring of performance-based systems to ensure proper treatment of effluents is a fundamental element of allowing them. Removing the oversight of performance-based systems removes the assurance that such systems are functioning properly. The burdens of the permitting process do not constitute a defect in the proposed rule.

7080.0315 INSPECTION PROGRAM FOR ISTS

Subpart 2. Compliance Inspection.

206. Subpart 2 requires that any contractor must be appropriately licensed or registered to conduct inspections. Crow Wing County objected to the rule as allowing the contractor performing the compliance inspection for an existing system to then design the replacement ISTS system.¹⁹⁹ The MPCA recognized the potential problem with the situation, since a contractor might be influenced to find that a system is failing to obtain the further work to design the replacement system, but the MPCA noted that the rule language was taken from Minn. Stat. § 115.55, subd. 5 (e).²⁰⁰ The MPCA correctly noted that the rule could not be more restrictive than the statute. The rule is needed and reasonable as proposed.

Subpart 3. Certificate of compliance or notice of noncompliance.

207. Upon completion of inspections, a certificate of compliance or notice of noncompliance is issued. The Minnesota Association of Realtors objected to the language in the rule that requires notice as to whether the ISTS system is in compliance with "applicable requirements." The MPCA explained the reason for using that term as follows:

The agency used "applicable requirements" consistent with the statutory language. It was a broad term that to the agency meant the appropriate parts of the local ordinance would apply, in this case the compliance criteria. That was clear to the agency, but apparently not to others. The agency proposes to address the Association's concerns with the above proposed rule changes. It is reasonable to make this change to assure understanding by all rule readers, particularly the inspectors. It should be noted, however, that 7080.0060 could be modified under a local ordinance. It still remains reasonable to propose this change because local ordinance differences from Chapter 7080 must be presented in writing to anyone who asks. The University of Minnesota/MPCA workshops already emphasize the need for persons to obtain the list.²⁰¹

208. To address the commentator's concerns, the MPCA replaced "applicable requirements" with "part 7080.0060." The MPCA also deleted the reference to the

¹⁹⁹ Exhibit 8, Crow Wing County 3/29/99 letter.

²⁰⁰ MPCA Comment, at 105.

²⁰¹ MPCA Comment, at 106-107.

"required time period" to clarify that LGUs, not inspectors, are responsible for determining the appropriate time for correcting failing systems. The new language is more specific and incorporates LGU modifications by ordinance. The modification is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

209. Pine and Crow Wing counties objected to the use of the terms "reasonable" and "reasonably" in subpart 3 B as the standards of meeting the ISTS requirements for issuance of certificates of compliance. The MPCA acknowledged that the rule language created discretion for inspectors where none was intended.²⁰² To correct this situation, the terms were deleted from the rule. The modified rule is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

210. Item C of subpart 3 requires the inspection report for existing systems must include how vertical separation and tank water tightness are determined. Washington County suggested clarification in how compliance with the vertical separation is to be determined. Carlton County questioned whether watertightness has been a problem and requested more specifics.²⁰³ The MPCA noted that requiring a tank be watertight is a new requirement but the rule on inspections did not specify how compliance was to be determined. To meet the commentators' concerns, the MPCA modified item C(1) to read:

(1) An inspection report certificate of compliance for existing systems shall include the methodology used to determine vertical separation distance, tank leakage water tightness, and whether if an imminent threat to public health or safety exists. If the original installation took place under a local unit of government permit process that included the following verification procedure, then there is no further need to verify the vertical separation for the life of the system. Under the local permit process, this verification must be made by in-field measurements of the redoximorphic features determined and documented during the original soil testing, governmental review and as-builts, or by documentation of in-field measurements of the redoximorphic features and the in-place systems determined during a construction inspection.

211. The MPCA explained that the inspection report needed reference to the listed methodologies, rather than the certificate of compliance.²⁰⁴ An unnecessary reference to distance is deleted and a reference to leakage is included to conform to the definition for failing. The MPCA described the largest change to the item as:

The last sentence has been a discussion item with the ISTS Advisory Committee and was essentially included in a previous draft, as approved

²⁰² MPCA Comment, at 107.

²⁰³ Exhibit 8, Carlton County 3/22/99 letter.

²⁰⁴ MPCA Comment, at 108.

by the committee. This allowance only applies if local authority is involved (thus the language “If...under a local unit of government permit process”). The agency does not think it reasonable to allow no lifetime vertical separation testing based on the original soil testing and governmental review as suggested by the commenter. This does not take into account system placement. The core of determining vertical separation is knowing where the in-place soil system is located and soil knowledge. It is reasonable to allow this to occur because the most frequent problems brought to the legislature and to the agency are those over repeated inspections making different determinations, particularly those without local unit of government involvement. Thus, the addition of “as-built” to tie everything together if option 1 is used. A mistake in the SONAR (Exhibit 3) actually now allows the reader to see the justification and reasonableness of this approach because the SONAR language was written for this type of concept and language subsequently deleted.²⁰⁵

212. Pine and Wright counties questioned the language of item C(2) in subpart 3. The interrelation of the certificate of compliance and an expired verification was questioned by Pine County. Wright County questioned what subject matter was being referred to by the rule. Another commentator asked if the language is referring to the vertical separation, tank verification, and imminent public health threat documents that were removed from a previous version of chapter 7080. Based on these comments, the MPCA modified the rule to read:

~~(2) Certificates of compliance for existing systems remain valid for three years after the date of issuance unless the local unit of government finds evidence of an imminent threat to public health or safety or that other supporting verifications are no longer valid. The certificate of compliance remains valid for the three years from the date of issuance even if a supporting verification as described in subitem (1) used to issue the certificate has expired.~~

213. Relying on invalid certifications is certainly a questionable basis for maintaining a certificate of compliance. The modifications to the rule are needed and reasonable to adjust the rule language to accomplish the results intended by the MPCA. The new language is not substantially different from the rule as published in the *State Register*.

7080.0400 NEW TECHNOLOGY

214. With a standards-based system, the MPCA relies upon technologies that have been proven to work over time. For performance-based ISTS systems, the technology is unproven, and therefore monitoring is performed to ensure that sewage is being properly treated before the effluent is disposed of in the soil. Of course, at one time or another, every technology in the standards-based rules was a new, unproven

²⁰⁵ *Id.*

technology. Herman Miller inquired about the history of mound systems and questioned how long a system must be in use before it can be included as a standards-based system.²⁰⁶

215. The MPCA responded that mound systems were first developed in the 1950's.²⁰⁷ Mounds were first included in Minnesota ISTS rules as an alternative system in 1978.²⁰⁸ In 1989, mounds were reclassified as a standard system.²⁰⁹ Multi-Flo requested clarification as to what entity is responsible for new system approval. The MPCA responded that any LGU may approve such technologies through the permitting process; the MPCA then reviews and approves the technology. Upon MPCA approval, the technology is classified as either alternative or standard. The means to achieve classification as standard are proposed as at least 100 systems in use across a variety of soils over a period of at least seven years. Marsha Shepard, Associate Editor of *Focus 10,000*, suggested that the costs of monitoring new technologies are not reasonable, when data from the use of the system in other states could be used to demonstrate performance.²¹⁰ Ayres Associates suggested that the references to "design" be replaced with "product or process."²¹¹ In response to these and other suggestions, the MPCA rewrote part 7080.0400. Specific issues raised regarding particular portions of that part will be discussed individually.

Subpart 1. New Technology. Procedures for approval.

216. The MPCA took Ayres Associates' suggestion and removed design throughout the rule. As rewritten, subpart 1 states:

Subpart 1. Procedures for approval designation. The commissioner may approve designate a new technology technologies, device or design as a standard or alternative system or system component if the submittal meets the requirements of this part. as meeting the technical standards and criteria of this chapter if documentation submitted to the commissioner demonstrates that the new technology:

217. The rule appropriately requires that new technology meet standards to obtain approval. But the language "The commissioner may designate ..." indicates that the Commissioner has the discretion to not designate a technology as standard or alternative even where the requirements of part 7080.0400 are met. There is no showing in the rulemaking record that such discretion is needed or reasonable. Ordinarily, rule language that allows such discretion would be found to be a defect in the rules as proposed. But the MPCA has added specific standards for approval and denial of applications (subparts 5 and 6, as rewritten) in part 7080.0400. With specific requirements set out in subparts 5 and 6, use of the word "may" does not constitute a

²⁰⁶ Transcript, Volume 1, at 108.

²⁰⁷ MPCA Comment, at 109.

²⁰⁸ *Id.*

²⁰⁹ *Id.* at 110.

²¹⁰ Exhibit 28.

²¹¹ Exhibit 8, Ayres 3/19/99 letter.

defect in the proposed rule. Nevertheless, the Judge suggests modification of the subpart to replace "may" with "must" or "shall." The modification, while not required to render the rule needed and reasonable, constitutes better practice in rule writing. The new language is not substantially different from the rule as published in the *State Register*.

218. Commentators inquired as to what was meant by "long term" in the approval standard in item B. Alaskan objected to limiting new technologies to waste of "typical domestic households."²¹² The MPCA modified item B (in subpart 2 as the rule is rewritten) to read:

B. have structural components that meet or exceed a 25-year design life has long-term treatment and hydraulic reliability while serving typical domestic households under adverse climatic conditions and varied soil conditions through in-field testing and have soil treatment that meets or exceeds a 7-year design life when loaded at maximum design flows established in part 7080.0125 or 7080.0600. The new technology must be tested at its design maximum hydraulic and organic loading rates. Structural and soil treatment testing must be adequate to extrapolate the life expectancies required in this item:

219. The MPCA explained the reason for the changes as follows:

When the rule language was first drafted and brought to the ISTS Advisory Committee, they chose not to define long-term. During the comment periods the ISTS industry, such as Pumpco identified above, encouraged the agency to provide detail on what the agency really expects for long-term performance. The agency has responded by replacing the vague terms "long-term treatment and hydraulic reliability" with a standard time period. A 25-year design life for structural components is proposed because it is a typical design standard in the construction industry, not only in the ISTS industry

* * *

It is reasonable to expect structural components to last at least 25 years. It is also reasonable to require at least a 7-year life for soil treatment or disposal. Seven years is the typical fluctuation cycle seen for Minnesota weather conditions. Seven years has also been shown to be reasonable through research (Attachment 10) of systems loaded at maximum hydraulic conditions. Systems last longer than seven years because they

²¹² Exhibit 8, Alaskan 3/26/99 letter

are often hydraulically loaded at a much lower level than design. Safety factors in this rule are found in hydraulic designs.²¹³

220. The MPCA deleted the domestic household reference to clarify that there is no limitation on the use of new technologies to dwellings. The MPCA has justified the 25-year and 7-year design standards by an affirmative presentation of fact. The rule as modified is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

Subpart 2. Submittal requirements.

221. The MPCA modified subpart 2, rewritten as subpart 3, to specify that the information in the subpart relates only to requests for alternative designation. The MPCA also agreed with the suggestion by Ayres Associates to delete items H and I in the subpart. Those items requested cost information that the MPCA acknowledged is not needed to arrive at the designation of a system. The modifications are needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

222. Ayres Associates urged that item K (in subpart 3 as rewritten) be altered to require review by a person licensed by the MPCA. The MPCA declined to make that change, noting that relying upon persons with relevant experience "such as Professional Engineers, Professional Soil Scientists, Sanitarians, academic researchers, and other professionals with knowledge" will promote flexibility and will result in a simpler approval process.²¹⁴ There has been no showing that limiting the review to persons with credentials is needed or reasonable. Allowing other persons with relevant knowledge to perform the work has been shown to be needed and reasonable.

Subpart 4. Standard system designation.

223. Consistent with the separation of alternative system standards into a single subpart, the MPCA proposed a new subpart, subpart 4, to set the requirements for designation as a standard system. The proposed subpart reads as follows:

Subp. 4. Standard system designation. For a new technology to be designated as a standard system, the following criteria must be met:

A. The new technology must be designated as an alternative system in subpart 2:

B. A minimum of one hundred of each new technology and soil treatment or dispersal systems must be installed, operated and monitored distributed across all major soil classifications and under normal use for a minimum of 7 years.

²¹³ MPCA Comment, at 115-116.

²¹⁴ MPCA Comment, at 118.

D. The frequency and type of monitoring must be approved by the commissioner.

224. The subpart contains the 100-system and seven-year requirement that *Focus 10,000* perceived as unreasonable. The MPCA stated its reasons for the requirements as follows:

Subpart 4 is proposed to distinguish alternative and standard systems. The specific numbers included in this language are requested by industry and internal staff to clearly identify what the agency intends. The previously proposed rule was too vague in stating “long-term treatment and hydraulic reliability.” Requiring 100 systems to be installed is reasonable because the agency expects to see data showing long-term use under varying conditions. This data does not have to be generated in Minnesota; many technologies will have this data available because they have been used across the country for years. If no data exists the system can be loaded at maximum capacities and data extrapolated for the 25-year and 7-year design lives for an alternative system and granted approval very quickly. Standard systems will have to prove themselves over time and location as has been done in the past for ISTS technologies.²¹⁵

225. The MPCA clarified in its comments that the data can be collected in states other than Minnesota. This approach significantly reduces the difficulty and expense of obtaining the standard designation for new technology. Subpart 4 is needed and reasonable as proposed. The new language is not substantially different from the rule as published in the *State Register*.

7080.0600 OTHER ESTABLISHMENTS

226. Waste treatment at facilities other than dwellings is addressed by part 7080.0600. Clint Elston urged that the rule part include language to address the use of greywater systems.²¹⁶ The MPCA noted that the rule identifies the technical standards for separation as included for other establishments.²¹⁷ The rule is not defective for failing to mention these technologies again.

227. KBM questioned whether additional requirements should be placed in the rule for larger systems. The MPCA identified the typical system as handling a maximum flow of up to 2000 gallons per day (GPD). The MPCA indicated that a state permit is required for systems handling over 10,000 GPD.²¹⁸ In determining the classifications for regulation, the MPCA has followed the federal requirements of Code of Federal

²¹⁵ MPCA Comment, at 119.

²¹⁶ Exhibit 8, Alasca 3/26/99 letter.

²¹⁷ MPCA Comment, at 116.

²¹⁸ MPCA Comment, at 122.

Regulations, title 40, parts 144 and 146.²¹⁹ The MPCA's approach is needed and reasonable.

Subpart 2. Administration by state agencies.

228. Aitkin County questioned why one-half mile was used as the standard for grouping multiple ISTS systems of a single landowner to reach the threshold for requiring a state disposal permit. The MPCA indicated that the distance was a compromise between the need to protect public waters, allocate available staff time, and not overburden lakeshore associations.²²⁰ No evidence supporting an appropriate lesser distance was introduced. The distance chosen is needed and reasonable to balance the costs and benefits of the regulation.

Subpart 4. Technical requirements, design.

229. Changes in other portions of the rules require determination of BOD levels in sewage. To reflect these changes in the rules for other establishments the MPCA added the following language:

7080.0600, subp. 4 B. (3) (new) (RR 101.7) *Estimated or measured average concentrations of biochemical oxygen demand, total suspended solids and oil and grease shall be determined.*

230. The new language is needed and reasonable to assess waste that must be treated and ensure the ISTS system will achieve that treatment. The new language is not substantially different from the rule as published in the *State Register*.

231. MDOH indicated that the minimum average head requirement of 2 feet should be retained in the rule as applied to establishments.²²¹ The MPCA indicated the deletion of the provision was inadvertent and proposed the following language to cure the oversight.

7080.0600 Subp. 4 D (1) *Dosing chambers, pump pits, wet wells, or lift stations shall meet all requirements in part 7080.0160 with the pump discharge capacity based upon the perforation discharges for a minimum average head of 2.0 feet.*

232. The new language retains an existing requirement and is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

233. The Metropolitan Council questioned whether the rule was intended to promote the use of two tank designs for ISTS in rural areas not slated for development

²¹⁹ *Id.*

²²⁰ MPCA Comment, at 123.

²²¹ Exhibit 8, MDOH 3/30/99 letter.

and areas needing additional protection due to soil conditions.²²² The Metropolitan Council also urged requiring water meters for all ISTS systems. The MPCA responded that the rule was intended as a minimal rule and LGUs should consider any local concerns in adopting ordinances. The issue of water meters has been frequently discussed on the Advisory Committee. The MPCA determined the cost to be unnecessary for all systems and the device was not likely to be used properly in many installations.²²³ Declining to require water meters for all systems does not result in a defect in the proposed rule.

234. MDOH suggested the addition of a “design factor of 1.5” to be applied to measured flows for determining the proper size of the ISTS system. The use of a design factor acts to prevent system failure in the event of actual system flows exceeding the measured flows used in the ISTS design.²²⁴ The MPCA responded as follows:

No rule change proposed. To date, there is no evidence that a 1.5 safety factor is better or worse than the language proposed in the 1996 rule (the commented language is not a change; it is underlined because it has been moved). When taken to the 4-1-99 ISTS Advisory Committee for discussion, the consensus was that using only metered flow will not allow a safety factor. The committee acknowledged that a better educational process for determining flows for existing systems was needed. No alternative language to the existing 1996 language was proposed and the committee did not support the 1.5 safety factor over current language.²²⁵

235. The MPCA has demonstrated that its existing rule is needed and reasonable. Declining to adopt a more stringent standard is not a defect in the proposed rule.

236. Ramsey County objected to the inclusion of restaurants as “other non-sewage discharge facilities,” asserting that wastewater from restaurants is properly categorized as sewage.²²⁶ The MPCA responded that the rule language referred to in item C(2)(c) is unnecessary and unrelated to the rule's function. The MPCA modified the rule as follows:

~~(c) For restaurants, laundromats, and other nonsewage discharge facilities,~~
sufficient detention time or pretreatment must be provided to produce an effluent quality suitable for discharge to a soil treatment system as defined in part 7080.0170, subp. 1, Item D.

²²² Exhibit 8, Metropolitan Council 3/9/99 letter.

²²³ MPCA Comment, at 123-124.

²²⁴ Exhibit 8, MDOH 3/30/99 letter.

²²⁵ MPCA Comment, at 124.

²²⁶ Exhibit 8, Hibberd 3/3/99 email.

237. The modification does not alter the effect of the rule. The rule as modified is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

238. Based on a comment received, the MPCA modified item E(2) of subpart 4 to read:

(2) Collection systems shall be designed based on the sum of all flows for dwellings and other establishments as described in item B. Flows shall be increased to allow for 200 gallons of infiltration per inch of pipe diameter per mile per day. ~~The~~ If the system is shall be designed with each dwelling ~~or other establishment~~ having a sewage tank, or designed with a common sewage tank serving less than ten bedrooms, the liquid capacity of the tank(s) shall be in accordance with 7080.0130 subp. 3. If the system is designed with a common sewage tank serving ten bedrooms or more, or serving an other establishment, the liquid capacity of the tank(s) shall be in accordance with subp. 4 C. ~~or a common sewage tank. If a common septic tank is used, the capacity of the septic tank shall be the sum of the tanks sized according to part 7080.0130, subpart 3, item A.~~ All sewage tanks shall meet the applicable requirements of part 7080.0130 that apply.

239. The MPCA indicated that the newly added reference was needed to arrive at the proper size for required septic tanks for collector systems.²²⁷ The rule as modified is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

240. Item E(4) requires 4-inch piping for collection systems. Larry Fyle indicated that he has seen only 3" piping in dwellings and that smaller size has not resulted in problems. The MPCA responded that the U.S. Environmental Protection Agency manual recommend a minimum of between 4 and 6 inches in pipe diameter for collector systems. There is no defect in requiring 4-inch diameter pipe for these systems.

241. MDOH objected to the language in item E(7) that equates watertight and pressure tested sewer connections to the required setback from water supply systems. The MPCA sought to clarify that the setbacks are requirements, not options, and modified the rule to read:

(7) There shall be no physical connection between sewers and water supply systems. Sewer shall be set back from water supply systems and piping as required for building sewers. ~~Where it is not possible to obtain proper separation distances, the sewer connections shall be watertight and pressure tested.~~

242. The MPCA noted that the workshops conducted and factsheets distributed to ISTS professionals will continue to describe what is allowable under the well code.²²⁸

²²⁷ MPCA Comment, at 126.

²²⁸ MPCA Comment, at 126.

The rule as modified is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

7080.0700 LICENSES

Subpart 1. State license required.

243. As originally proposed, subpart 1 B of part 7080.0700 required a person constructing an ISTS system to consult with a Designer I or Designer II. Carlton and Pine counties objected to the word "consult" as too vague. The MPCA noted that "consult" was the word used in Minn. Stat. § 115.56, subd. 2(b)(4), which is the portion of the statute establishing this requirement. In the absence of a definition, the MPCA modified the rule to read:

B. an individual who ~~is constructing~~, after obtaining a signed design report from consulting with a designer I or II, constructs a system on land that is owned or leased by the individual and functions solely as a dwelling or seasonal dwelling for that individual ~~after consulting with a designer I or II~~. The system must be inspected before being covered and a certificate of compliance or notice of noncompliance must be provided to the local unit of government after the inspection.

244. The MPCA arrived at the modification through deliberation with the Advisory Committee. The new language changes the focus of the rule from the process (consulting) to the end result (getting a signed report). The language is consistent with the statutory requirement and is needed and reasonable. The new language is not substantially different from the rule as published in the *State Register*.

7080.0710 BONDING AND INSURANCE FOR LICENSES

245. KBM urged the inclusion of design service under the requirement for professional liability insurance.²²⁹ The MPCA responded that it had attempted to obtain such inclusive requirements when Minn. Stat. § 115.56, subd. 2 (e) was adopted.²³⁰ Since the narrower requirement was imposed by statute, the MPCA concluded that broader requirements would require a statutory change. Part 7080.0710 is needed and reasonable as proposed.

7080.0715 LICENSE CONDITIONS

246. Pine County pointed out that the language in part 7080.0715 was contradictory, requiring the presence of the inspector in one area and allowing the inspector to view photographs or videotape in another. The MPCA agreed with the comment and deleted subpart 2 B(2)(b). That rule required an inspector be present during inspections. Using of alternative means of proof is authorized by Minn. Stat. §

²²⁹ Exhibit 8, Veit 3/29/99 letter.

²³⁰ MPCA Comment, at 128.

115.55, subd. 5. Deletion of the provision is needed and reasonable and not substantially different language from that published in the *State Register*.

247. Item B(4) requires reporting by pumpers of the waste removed from ISTS systems. Carlton County suggested adding the location and method of land application or disposal of waste to the requirements of the item. The MPCA acknowledged that there is need to know where the waste is being finally disposed in the event of allegations of improper disposal. The MPCA suggested the following language:

(4) Pumpers must verify the adequacy of pumpouts and land application or septage disposal. This verification may be fulfilled by periodic evaluations. Pumpers must provide a report to the property owner that includes the pumpout date, gallons removed, tank leakage, access point used to remove the septage, location and method of land application or disposal, and any troubleshooting or repairs conducted.

248. The rule as modified adds legitimate information needed to regulate the conduct of pumpers. The rule as modified is needed and reasonable and not substantially different language from that published in the *State Register*.

7080.0815 EXPERIENCE

Subpart 1. Options to gain experience.

249. Experience is required of persons seeking licensure in ISTS specialty areas. Persons seeking experience work in ISTS under a restricted license. Daniel Hecht on behalf of Clearwater County, indicated that the restricted license language is not clear.²³¹ The rule appears to suggest that that a person does not need a restricted license if the person is working in ISTS to gain experience. The MPCA acknowledged that the rule was not clear and modified the rule to read as follows:

B. If the individual ~~is seeking~~ obtains a restricted license, qualifying experience may be completed under a signed agreement for direction an experience plan which includes direct and personal supervision with a qualified employee, a designated registered professional who has a specialty area registration endorsement that is the same as the specialty area sought by the individual acquiring the experience, a designer I, or an inspector and under a restricted license held by the individual seeking the experience.

250. The modified language clarifies that a restricted license is required of persons who are seeking to fulfill the experience requirement under this item. The rule as modified is needed and reasonable. The language proposed is not substantially different language from that published in the *State Register*.

7080.0820 CONTINUING EDUCATION

²³¹ Transcript, Volume 1, at 105.

251. Aitkin County and Larry Fyle questioned the propriety of exempting pumpers from continuing education based on the pumper's income. The MPCA responded that the exception was contained in Minn. Stat. § 115.56, subd. 2 (h).²³² The MPCA lacks the authority to alter a statutory directive. The rule is needed and reasonable as proposed.

7080.0850 ISTS PROFESSIONAL REGISTRATION

252. Aitkin County suggested that inspectors should have the depth of knowledge and ability of designers. The MPCA indicated that inspectors are encouraged but not required to meet the standards of designers.²³³ There has been no demonstrated need to have inspectors meet the same standards as designers.

Implementation Date.

253. Ron Palmen, President of the Minnesota On-site Sewage Treatment Contractors Association, urged delaying implementation of the "full rule" until January 1, 2000, to allow additional time for training.²³⁴ The MPCA indicated that the issue would be discussed with Advisory Committee. The record in this matter does not demonstrate that delay in implementation of the rule is needed or reasonable to cure a defect.

Difficulty in Understanding Rule Requirements

254. The Minnesota Association of Realtors suggested that the rules are too complicated for homeowners to understand their rights. Dick Sigel, Land Use Administrator from Lake County, opined that the proposed rules were becoming too prescriptive, thereby preventing the exercise of discretion to meet the variety of situations encountered in installing ISTS systems.²³⁵ The MPCA responded as follows:

The agency has always recognized the complexity of the rules so a rule implementation and educational process during and after a rule is adopted. This 1999 rule will require a thorough implementation to assure persons understand statute and rule and have a comprehensive knowledge of how the rule and statute requirements impact them. The agency develops comprehensive factsheets for each topic (e.g., vertical separation, compliance inspection requirements and local ordinance requirements). Factsheets are reviewed by peers before distribution. Factsheets are offered at the nearly 40 annual statewide onsite sewage treatment workshops held jointly by the MPCA and the University of Minnesota, at Association workshops, the ISTS Advisory Committee members, the dozens of speaking engagements conducted by MPCA staff, etc. After the 1997 lawmaking and the 1996 rulemaking we conducted mailings of information to all ISTS professionals in the agency's

²³² MPCA Comment, at 131.

²³³ MPCA Comment, at 131.

²³⁴ SONAR, Exhibit 3v.

²³⁵ Transcript, Volume 1, at 6.

database, and all the interested parties (approximately 5000 persons), including all representatives on the ISTS Advisory Committee.²³⁶

255. The rules are complicated. Some of the complications arise from the subject matter itself. Other complications arise from the MPCA's effort to allow new technologies and give landowners the benefit of all suitable options. To ensure that ISTS professionals are current on acceptable practices, the MPCA conducts workshops, mailings, and posts information on its website.²³⁷ The complexity of the rules does not rise to the level of a defect.

Summary

256. The MPCA has rewritten the ISTS rules to provide standards-based approval, performance-based approval, LGU authority for local ISTS ordinances, and standards for licensure of ISTS professionals. The large volume of comments was closely examined by the MPCA and a large number of rule modifications resulted from that examination. The approach taken by the MPCA is consistent with legislative mandates and demonstrates concern for costs incurred by landowners and LGUs balanced with the need to protect the environment from pathogens carried by untreated sewage.

Based upon the foregoing Findings of Fact, the Administrative Law Judge makes the following:

CONCLUSIONS

1. The Minnesota Pollution Control Agency (MPCA) gave proper notice of this rulemaking hearing.
2. The MPCA has substantially fulfilled the procedural requirements of Minn. Stat. §§ 14.14, subds. 1, 1a and 14.14, subd. 2, and all other procedural requirements of law or rule so as to allow it to adopt the proposed rules.
3. The MPCA has demonstrated its statutory authority to adopt the proposed rules, and has fulfilled all other substantive requirements of law or rule within the meaning of Minn. Stat. §§ 14.05, subd. 1, 14.15, subd. 3 and 14.50 (i) and (ii).
4. The MPCA has demonstrated the need for and reasonableness of the proposed rules by an affirmative presentation of facts in the record within the meaning of Minn. Stat. §§ 14.14, subd. 2 and 14.50 (iii).
5. The additions and amendments to the proposed rules suggested after publication of the proposed rules in the *State Register* do not result in rules which are substantially different from the proposed rules as published in the *State Register* within

²³⁶ MPCA Comment, at 40.

²³⁷ MPCA Comment, at 140.

the meaning of Minn. Stat. § 14.15, subd. 3, and Minn. Rule 1400.1000, subp. 1 and 1400.1100.

6. Any Findings, which might properly be termed Conclusions and any Conclusions, which might properly be termed Findings, are hereby adopted as such.

7. A finding or conclusion of need and reasonableness in regard to any particular rule subsection does not preclude and should not discourage the MPCA from further modification of the proposed rules based upon an examination of the public comments, provided that no substantial change is made from the proposed rules as originally published, and provided that the rule finally adopted is based upon facts appearing in this rule hearing record.

Based upon the foregoing Conclusions, the Administrative Law Judge makes the following:

RECOMMENDATION

IT IS HEREBY RECOMMENDED that the proposed rules be adopted.

Dated this 30th day of June, 1999.

STEVE M. MIHALCHICK
Administrative Law Judge

Reported: Transcript, Two Volumes
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