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PCA-89-001-RL
7-2200-2571-1

STATE OF MINNESOTA
OFFICE OF ADMINISTRATIVE HEARINGS

FOR THE MINNESOTA POLLUTION CONTROL AGENCY

In the Matter of the Proposed
Revisions to Minnesota Rules
Chapter 7080, Individual Sewage
Treatment System Standards

REPORT OF THE
ADMINISTRATIVE LAW JUDGE

The above-entitled matter came on for hearing before Administrative Law Judge Richard C. Luis, with afternoon and evening hearings in the following communities:

Tuesday, September 6, 1988 - Hibbing
Wednesday, September 7, 1988 - Detroit Lakes
Thursday, September 8, 1988 - Little Falls[1]
Monday, September 19, 1988 - Marshall
Tuesday, September 20, 1988 - Rochester
Thursday, September, 22, 1988 - St. Paul

This Report is part of a rule hearing proceeding held pursuant to Minn. Stat. §§ 14.131 through 14.20 to determine whether the agency has fulfilled all relevant substantive and procedural requirements of law, whether the proposed rules are needed and reasonable, and whether or not the rules, if modified, are substantially different from those originally proposed.

Members of the agency panel appearing at the hearing were: Beverly Conerton, Special Assistant Attorney General, Suite 200, 520 Lafayette Road, St. Paul, Minnesota 55155; John Hensel, Principal Engineer, Division of Water Quality, Pollution Control Agency; David R. Nelson, Senior Engineer, Division of Water Quality, Pollution Control Agency; and Lawrence Zdon, Staff Engineer, Division of Water Quality, Pollution Control Agency.

Approximately 148 persons attended the hearings. 72 people signed the hearing registers, and 28 members of the public testified. Several witnesses offered documents for the hearing record at the various locations. All such documents were accepted as exhibits.

The Pollution Control Agency Board must wait at least five working days before taking any final action on the rules; during that period, this Report must be made available to all interested persons upon request.

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[1]Administrative Law Judge Phyllis A. Reha presided in Little Falls.

Pursuant to the provisions of Minn. Stat. § 14.15, subd. 3 and 4, this Report has been submitted to the Chief Administrative Law Judge for his approval. If the Chief Administrative Law Judge approves the adverse findings of this Report, he will advise the Agency of actions which will correct the defects and the Agency may not adopt the rule until the Chief Administrative Law Judge determines that the defects have been corrected. However, in those instances where the Chief Administrative Law Judge identifies defects which relate to the issues of need or reasonableness, the Agency may either adopt the Chief Administrative Law Judge's suggested actions to cure the defects or, in the alternative, if the Agency does not elect to adopt the suggested actions, it must submit the proposed rule to the Legislative Commission to Review Administrative Rules for the Commission's advice and comment.

If the Agency elects to adopt the suggested actions of the Chief Administrative Law Judge and makes no other changes and the Chief Administrative Law Judge determines that the defects have been corrected, then the Agency may proceed to adopt the rule and submit it to the Revisor of Statutes for a review of the form. If the Agency makes changes in the rule other than those suggested by the Administrative Law Judge and the Chief Administrative Law Judge, then it shall submit the rule, with the complete record, to the Chief Administrative Law Judge for a review of the changes before adopting it and submitting it to the Revisor of Statutes.

When the Agency files the rule with the Secretary of State, it shall give notice on the day of filing to all persons who requested that they be informed of the filing.

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

FINDINGS OF FACT

Procedural Requirements

1. On July 13, 1988, the Pollution Control Agency (PCA) filed the following documents with the Chief Administrative Law Judge:

a. A copy of the proposed rules, with a certification of approval as to form by the Revisor of Statutes.

b. A copy of the Certificate of the Agency's Authorizing Resolution;

c. A proposed Order for Hearing;

d. A proposed Notice of Hearing.

e. A copy of the Statement of Need and Reasonableness.

2. On August 5, 1988, the Pollution Control Agency mailed the Notice of Hearing to all persons and associations who had registered their names with the Agency for the purpose of receiving such notice and mailed additional Notices of Hearing, using its discretionary powers, to county zoning administrators and individuals who participated in the Agency's Individual Sewage Treatment System Training Program.

3. On August 1, 1988, a Notice of Hearing and the proposed rules were published at 13 State Register 232.

4. On August 11, 1988, the Pollution Control Agency filed the following documents with the Administrative Law Judge:

a. The Notice of Hearing as mailed.

b. The Pollution Control Agency's Certification that its mailing list was accurate and complete.

c. The affidavit of mailing of the Notice of Hearing to all all persons on the Agency's mailing list.

d. The Pollution Control Agency's affidavit of additional discretionary Notice of Hearing; and

e. Material received pursuant to the Notice of Intent to Solicit Outside Opinion, published at 10 State Register 1560 on January 20, 1986.

5. On September 1, 1988, the Pollution Control Agency filed the following documents with the Administrative Law Judge:

a. The Certificate of Mailing List and Affidavit of Mailing with an attached list of persons on the Agency's mailing list; and

b. Affidavit of Additional Discretionary Notice with an attached list of persons who were sent copies of the discretionary notice.

6. On September 12, 1988, the Pollution Control Agency filed the following documents with the Administrative Law Judge:

a. A photocopy of the pages of the State Register on which the Notice and proposed rules were published, at 13, S.R. 232 on August 1, 1988.

7. The above cited documents were available for inspection at the Office of Administrative Hearings from the date of filing to the date of the last hearing. No one inquired at the Office of Administrative Hearings to inspect any of the above-mentioned documents at any time during the rulemaking process.

8. The initial comment period remained open through October 12, 1988 for the receipt of written comments and statements as the period was extended at the Thursday, September 22, 1988, hearing by the Order of the Administrative Law Judge to 20 calendar days following the hearing. The record remained open for an additional three working days through October 17, 1988 for response to comments filed by October 12. The Chief Administrative Law Judge subsequently granted an extension of time, through November 23, 1988, for completion of this Report.

Nature of the Proposed Rules and Public Input

9. Minnesota Rules Chapter 7080 was first adopted in 1978 to establish Standards for Individual Sewage Treatment Systems (ISTS). The purpose of the chapter is to prevent the improper design, location, installation, use and maintenance of individual sewage treatment systems. Regulation of individual sewage treatment systems is necessary to prevent discharge of inadequately treated sewage to surface and ground waters of the state which results in adverse effects on water quality and the public health, safety and general welfare.

10. The Pollution Control Agency has advanced five reasons supporting revision and amendment of Chapter 7080. First, the Agency has determined that revision and amendment will better protect the public health, safety, and general welfare. Second, the Agency maintains that revision and amendment will reflect advances since 1978 in individual sewage treatment systems technology. Similarly, the Agency maintains that revision and amendment will reflect knowledge and experience obtained concerning certain alternative treatment systems so as to allow these treatment systems to be reclassified as standard treatment systems. Fourth, the Agency believes that amendment of the rules will serve to prevent errors in design, construction, and maintenance of individual sewage treatment systems and to aid in detecting problematic sewage treatment systems. Finally, the Agency believes that amendment and revision will simplify, clarify and improve consistency of administration of the rules.

11. The proposed amendments to Chapter 7080 were developed and formulated by the Individual Sewage Treatment Systems Advisory Committee based upon the existing rules. This advisory committee was created by Minn. Rule 7080.0100 to advise the Pollution Control Agency regarding revision of standards and legislation relating to individual sewage treatment systems. The advisory committee membership consisted of a citizen of Minnesota, representing the public, an employee of the Agricultural Extension Service of the United States Department of Agriculture and the University of Minnesota, six county administrators, a municipal building inspector, six sewage treatment contractors, and a water well contractor. The advisory committee also had non-voting members from the Pollution Control Agency, the Department of Natural Resources, the Department of Health, the United States Department of Agriculture Soil Conservation Service, the Metropolitan Council, the Association of Minnesota Counties, the Minnesota Association of Townships, the League of Minnesota Cities, and the Minnesota Society of Professional Engineers.

12. The advisory committee conducted a series of 11 meetings to develop a list of proposed changes to Chapter 7080. Subsequently the advisory committee passed a resolution to recommend that the Pollution Control Agency edit and restructure Chapter 7080 for clarification, order and increased ease of understanding. Staff of the Pollution Control Agency has agreed with most of the advisory committee's recommendations and made language modifications regarding clarification, order, and administration.

Public meetings in each of the five Agency regions were held by the Pollution Control Agency regarding revision of Minn. Rules 7080. Notice of these meetings was sent to newspapers throughout Minnesota, to the Minnesota On-Site Sewage Treatment Contractors Association, to each county of the State

and other local officials. The PCA staff surveyed participants at these public meetings and compiled the results of expressed opinions. In addition, the Agency solicited outside opinion by notice in the State Register on January 20, 1986 and received 11 comments. Finally, Pollution Control Agency staff met with the Technical Advisory Committee concerning the proposed amendments to Chapter 7080.

Small Business Considerations in Rulemaking

13. Minn. Stat. § 14.115, subd. 1 (1986) relates to small business considerations in rulemaking. The statutory provision requires the Pollution Control Agency to consider methods for reducing the impact of the rules on small businesses when the Agency is proposing rules that may have an effect on small businesses. Minn. Stat. § 14.115, subd. 1 provides that the Agency consider:

> (a) establishment of less stringent compliance or reporting requirements of small businesses;
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> (b) establishment of less stringent schedules for compliance or reporting requirements for small businesses;
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> (c) consolidation or simplification of compliance or reporting requirements for small businesses;
>
> (d) establishment of performance standards for small businesses to replace design or operational standards required in the rules; and
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> (e) exemption of small businesses from any or all requirements of the rule.

As the proposed amendments to Minn. Rules 7080 may influence small business, the Pollution Control Agency considered the five factors required by statute. The Agency determined that the cost to small businesses will be lessened due to the fact that fewer small businesses will have to comply with Minnesota permit requirements for individual sewage treatment systems. The Agency also determined that establishing performance standards for small businesses to replace design or operational standards would result in higher costs for both small businesses and the Agency because of associated monitoring and reporting requirements. Finally, the Agency believes exempting small businesses from the requirements of Minn. Rule 7080 would be inconsistent with the statutory mandate to protect Minnesota water resources. It is found that the Pollution Control agency has complied with the requirements of Minn. Stat. § 14.115, subd. 1 (1986).

Adequacy of the Fiscal Note

14. Minn. Stat. § 14.11, subd. 1 provides that when the adoption of a rule will require local government bodies to expend money, the Department must provide a written statement in the Notice of Hearing giving its reasonable estimate of the total cost to all public bodies in the State to implement the rule for the following two years if the estimated costs exceeds $100,000 in either of the first two years following adoption of the rules. The Pollution Control Agency maintains that the only costs to local government bodies

associated with implementing the rules are costs for inspection and record keeping concerning individual sewage treatment systems. Given that adoption of the rules is not mandatory, any additional costs will be incurred at the option of the local governmental body. No units of local government are "required" to expend money as a result of adoption of the proposed rules.

It is noted that most local government bodies have implemented the standards found in Chapter 7080, so inspection and recording systems are in operation. It is found that the Pollution Control Agency has given adequate consideration to expenditures of monies by local governmental bodies as required by statute, and that no defect has occurred in this rulemaking process as a result of the absence of notice of estimated costs to local government bodies.

Consideration of Economic Factors

15. Minn. Stat. § 116.07, subd. 6 (1986) provides:

> In exercising all its powers, the pollution control agency shall give due consideration to the establishment, maintenance, operation and expansion of business, commerce, trade, industry, traffic and other economic factors and other material matters affecting the feasibility and practicability of any proposed action, including, but not limited to, the burden on a municipality of any tax which may result therefrom, and shall take or provide for such action as may be reasonable, feasible and practical under the circumstances.

The Pollution Control Agency anticipates that most of the proposed amendments will have no economic effect. Some will raise the cost of a typical ISTS and some will lower it.

16. In its Statement of Need and Reasonableness, the PCA estimated the cost of installing an ISTS conforming to the proposed standards to be between two and six percent more than for a typical system conforming to current rules. These increased costs were due to the requirement of installation of a water meter to measure flow to the system for new dwellings or establishments and the requirement of installation of inspection pipes in trench, bed or mound systems. The water meter was expected to impose an additional cost of less than $100 per system; the inspection pipe was expected to impose an additional cost of less than $20. The Agency argued that the additional costs imposed are overcome by the benefits derived from diagnosing a failing system. In its final comments, the PCA staff recommended deletion of the requirement to install water meters on new dwellings. (See Finding 54).

17. The Agency estimates that there will be substantial savings to many homeowners due to the new provisions. For example, allowing mound sewage systems on steeper slopes is expected by the Agency to provide a viable alternative for many homes that would be required to install holding tanks. In such cases, the savings will amount to thousands of dollars.

18. The PCA estimates that some proposed provisions will have no net economic effect. The added costs resulting from requiring larger septic tanks for restaurants and laundromats will be offset by the decreased frequency of

maintenance. The added costs of construction resulting from requiring larger septic tanks when a garbage disposal is used will be offset by the savings due to longer life expectancy of the system and the decreased frequency of maintenance.

19. It is found that the Agency has given adequate due consideration to the economic impact of the proposed amendments to Chapter 7080 within the meaning of Minn. Stat. § 116.07, subd. 6.

Consideration of Impact on Agricultural Lands

20. Minn. Stat. § 17.83 (1986) requires the Pollution Control Agency detail any direct and substantial adverse effects of the proposed rules on agricultural land. In conjunction with this statute, the Pollution Control Agency has determined that the proposed amendments to Chapter 7080 will not have any adverse effect on agricultural lands.

Statutory Authority

21. Minn. Stat. § 115.03, subd. 1(e) charges the Pollution Control Agency with the power and duty to adopt, and modify, rules to prevent, control or abate water pollution and for the installation or operation of disposal systems. It is found that the PCA has demonstrated its general statutory authority to adopt the proposed rules.

Discussion of the Proposed Rules

22. Comments and suggestions made in the course of this rulemaking procedure have been detailed and voluminous. This report attempts to discuss all major objections to or comments on each rule subsection. The Pollution Control Agency has proposed a number of modifications to the rules as a result of comments made by the public. These modifications are discussed. Any rule subparts not specifically discussed below have been found to be necessary and reasonable as proposed based upon the Pollution Control Agency's Statement of Need and Reasonableness, upon the oral testimony at the hearing and upon the written exhibits and comments submitted prior to the close of the record in this matter. Many of the originally-published proposals and modifications subsequently proposed by the Agency are editorial or clarifying in nature. Any such proposals and modifications not discussed below are found to be necessary and reasonable. The editorial and clarifying modifications do not constitute substantial changes from the rule as originally published in the State Register.

7080.0010 PURPOSE AND INTENT

23. In response to comments made by Rich Peter at the September 20, 1988, Rochester hearing, the Pollution Control Agency proposes to add the following language on page 1, line 19[2]:

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[2]Citations to page and line numbers in this Report refer to the Rule copy approved for publication in the State Register by the Office of the Revisor of Statutes (Agency's Ex. 1).

These standards are most effective when applied in conjunction with local planning and zoning which considers the density of the systems that are discharging to the ground water. These standards are not intended to cover systems treating industrial waste or other wastewater which may contain hazardous materials.

This addition by the Agency serves to clarify application of the rules and as such, is needed and reasonable and does not constitute a substantial change in the rules.

7080.0020 DEFINITIONS

24. 7080.0020, subp. 1 defines "Certain terms". Modification of this section reflects current rulemaking protocol by adding the word "must". The change is found to be necessary and reasonable and is not a substantial change.

25. 7080.0020, subp. 1a adds a definition for "Additive, individual sewage treatment system". Certain products are advertised as improving the performance of an individual sewage treatment system by reducing the need for individual sewage treatment system maintenance or by reducing the frequency of septic tank cleaning. It is the Agency's position that these additives have not performed as represented and that use of such additives usually results in individual sewage treatment system impairment or failure. Hence, the Agency proposes inclusion of a definition in order to distinguish such additives from products having no effect on an ISTS. The Administrative Law Judge finds that the additional rule is both needed and reasonable.

26. 7080.0020, subp. 13 defines "Distribution pipes". Agricultural drain tiles were used in early individual sewage treatment system designs. Pipes specifically designed for distribution of septic tank effluent have subsequently replaced agricultural drain tiles because the perforations in the tiles are smaller than the size required for effluent distribution. Smaller diameter perforations result in inefficient distribution of effluent or blockage of distribution. Deletion of agricultural drain tiles from the definition is found to be reasonable and necessary.

27. 7080.0020, subp. 15a defines "Drainfield rock". The proposed definition replaces definition of the term "filler material", which is to be deleted. In its final comment, the PCA proposed that the words ". . . clean rock . . ." on page 2, line 6 be deleted from the definition of drainfield rock as it was ambiguous. The deletion is found to be necessary and reasonable and not a substantial change. The balance of the subpart is also found to be necessary and reasonable.

28. Various public comments indicated concern that the new drainfield rock definition limiting sand, silt, and clay to ". . . no more than five percent by weight passing through a number four sieve and no more than one percent by weight passing a number 200 sieve . . ." would be difficult and burdensome to enforce. The Agency maintains that the specificity of the new definition will provide a fair and objective standard for determining acceptability of drainfield rock and that the standard is necessary to limit

silt, clay, and sand in drainfield rock as such materials can wash through the rock during operation, thereby plugging the soil treatment area beneath the drainfield rock.

29. 7080.0020, subp. 18 defines "Greywater". The addition of the phrase "associated with these sources" following "and floor drains" to page 21, line 16 is found to be reasonable and necessary.

30. 7080.0020, subp. 18a defines "Hazardous materials". The Pollution Control Agency advocates inclusion of a definition of hazardous material on the grounds that hazardous materials disposed in an ISTS are not adequately treated. Hazardous materials are defined by reference to Minn. Stat. Chapter 7045 in order to avoid duplication of language found in another Rule and to avoid technical language to the extent possible. The proposed definition is found to be reasonable and necessary.

31. 7080.0020, subp. 20 defines "Impermeable". Changing the existing definition of impermeable to reflect the fact that slowly permeable soils accept water and that mound systems can be constructed on such soils is found to be reasonable and necessary. The Administrative Law Judge suggests the inclusion of the word "means" after the first use of the word "bedrock" on page 2, line 23 in order to clarify the definition. This would not be a substantial change, and it is found to be necessary and reasonable.

32. 7080.0020, subp. 22a defines "Maximum monthly average daily flow". It is found to be reasonable and necessary to include a definition of maximum monthly average daily flow so as to establish clear criteria for determination of when a disposal system permit is required. It is suggested that the Agency add the word "daily" following "average" to the heading of the definition for consistency purposes. Such a change is editorial and not a substantial change, and it is found to be necessary and reasonable.

33. 7080.0020, subp. 24b defines the "Ordinary high water level". Including such a definition is necessary to be consistent with Minn. Stat. § 105.37, subd. 14 (1986) and with the Department of Natural Resources' rules. Adding this definition is found to be reasonable and necessary.

34. 7080.0020, subp. 24c defines "Original soil". It is found to be reasonable and necessary to amend the rules to specify what constitutes original soil in order to prevent construction of mound systems on soils which have been altered by construction equipment.

35. 7080.0020, subp. 28 defines "Plastic limit". The Agency proposes adding a testing standard (ASTM Test No. D4318-84) to the definition in order to make the rule specific. This proposal is found to be necessary and reasonable.

36. 7080.0020, subp. 28a defines "Public waters". Reference to Minn. Stat. §§ 105.37 and 105.391 is found to be reasonable and necessary.

37. In its final comments, the Agency proposes to define "Restaurants" at Part 7080.0020, subp. 28c. The Department of Health has advised the Pollution Control Agency that a definition of restaurants is appropriate in order to exempt certain establishments that were not intended to be covered by the proposed requirements. The proposed definition would read as follows:

"'Restaurants' means an establishment which prepares and serves meals and at which multiple use dishes and utensils are washed." The Administrative Law Judge recommends writing the definition as follows: "'Restaurants' means establishments which prepare and serve meals and . . ." to achieve uniform sentence structure. As inclusion of a definition of restaurants would serve to further the purpose of the rules, the proposal is found to be reasonable and necessary and does not constitute a substantial change. The same Findings apply if the sentence is restructured in accordance with the Administrative Law Judge's suggestion.

38. 7080.0020, subp. 29 defines "Sand". Research by the Small Scale Waste Management Project in Wisconsin has demonstrated that fine sand and very fine sand have a slower long term acceptance rate than indicated by the percolation rate. Thus, to ensure proper performance of mound and line systems, a reduction in the allowed amounts of fine and very fine sand is found to be necessary and reasonable.

39. 7080.0020, subp. 33 defines "Sewage". Mr. Richard Peter voiced concerns in Rochester that exclusion of animal waste from the definition of sewage would result in animal waste not being regulated. While Mr. Peter's concern is valid, regulation of animal waste is governed by Minn. Rules Chapter 7020. The existing rules and proposed modifications do not change that situation. The proposed changes as originally published are found to be reasonable and necessary.

40. 7080.0020, subp. 41 defines "Soil characteristics, limiting". In its final comments, the PCA staff proposed to delete the phrase "but not limited to" from line 34, page 4. That change is found to be reasonable and necessary and not a substantial change. The staff also proposed in final comments to delete the reference to the distance to the water table or bedrock from the definition by deleting the words "closer than three feet to the ground surface". This proposal is found to be reasonable, necessary and not a substantial change since the required depth to the limiting soil characteristic is found elsewhere in the rules. The change from "60" to "120" minutes per inch of percolation, as originally published, is also found to be necessary and reasonable.

41. 7080.0020., subp. 43 defines "Soil treatment area". The proposed amendments to the definition as originally published are found to be reasonable and necessary. The Administrative Law Judge recommends that the phrase "that area" be inserted after "and for mounds" on page 5, line 5. Such a change would be editorial in nature, not a substantial change, and is found to be necessary and reasonable.

42. 7080.0020, subp. 44 defines "Soil treatment system". The PCA staff has proposed deletion of electroosmosis systems from the Rules and the prohibition of seepage pits. Deletion of reference to these methods is found to be necessary and reasonable.

43. 7080.0020, subp. 45 defines "Standard system". The proposed revised definition is found to be reasonable and necessary. It reflects technological advances and clarification of language in keeping with the purpose of the amendment of the rules, particularly in recognizing the acceptance of mound systems built in accordance with the revised standards.

44. 7080.0020, subp. 52 defines "Watertight". The altered definition is found to be reasonable and necessary. The Administrative Law Judge recommends, however, that the phrase "a sewage tank" be inserted after the word "means" on page 5, line 22 to increase clarity of language. This insertion would not be a substantial change, and is found to be needed and reasonable.

7080.0030 ADMINISTRATION BY STATE AGENCIES

45. In response to public comments, the Pollution Control Agency has proposed revising the language originally published on page 5, lines 27-35 and page 6, line 1 to read as follows:

> For an individual sewage treatment system, or group of individual sewage treatment systems, which are located on adjacent properties and under single ownership, the owner or owners shall make application for and obtain a state disposal system permit from the agency if either of the following conditions apply:
>
> A. The individual sewage treatment system or systems are designed to treat an average daily flow greater than 10,000 gallons per day; or
>
> B. The individual sewage treatment system or systems are designed to treat a maximum monthly average daily flow of 15,000 gallons per day or more.

The phrase "group of individual sewage treatment systems which are located on adjacent properties and under single ownership" includes the dwellings currently listed at page 6, lines 6-7. Similarly, the phrase implies that the sum flow from a group of individual sewage treatment systems would be the measurement to be compared with the two established levels of flow. Thus, the revision accomplishes the same purpose as the language published in the State Register. The purpose to be accomplished is to base permit requirement determinations on the size of the system or systems in question, not on the form of ownership. Basing determination on the size of systems mirrors concerns about potential adverse effects of large soil absorption systems and clustering of soil absorption systems in close proximity. (See Agency Exs. 14 and 33.) The proposed revision is reasonable and necessary and does not constitute a substantial change.

46. In final comments, the staff proposed deletion of the phrase "and so forth" from line 7, page 6. The deletion is found to be necessary and reasonable, in order to avoid vagueness, and is not a substantial change.

47. The Agency has proposed deleting lines 11-20 on page 6 in response to comments made by the Administrative Law Judge concerning the discretion granted to the Commission. The Agency has stated that it intends to inform local permitting authorities of the availability of limited technical assistance in educational sessions rather than by rule. This provision is not part of the existing rules. Its deletion from the proposed rules is found to be reasonable and necessary and not a substantial change.

7080.0040 ADMINISTRATION BY MUNICIPALITIES

48. 7080.0040, subp. 4. The Agency has proposed revising subpart 4 to read as follows:

> Inspection and approval. If a municipality issues construction permits under these standards for individual sewage treatment systems, the municipality or its authorized representative must inspect and approve systems according to these standards. The municipality must maintain records of the location and design of the systems.

The revision is found to be necessary and reasonable and not a substantial change. The intent for the rules to apply to systems that have been issued a permit by a municipality is clarified; similarly, addition of the word "construction" prior to "permits" clarifies that the permits are construction permits. Moreover, effective and uniform application of the standards requires that municipalities adopting the rules inspect to ensure compliance with the standards.

7080.0060 TREATMENT REQUIRED

49. The Agency proposed, in final comments, to delete the phrase "but not limited to" on line 19 of page 7. This deletion is found to be necessary and reasonable and not a substantial change.

50. In response to comments received at the September 8, 1988, hearing held in Little Falls, the Agency has proposed adding the following sentence after line 21, page 7:

> Systems installed according to all applicable local standards adopted and in effect at the time of installation shall be considered as conforming unless they are determined to be failing, except that systems using cesspools, leaching pits, seepage pits or systems with less than three feet of unsaturated soil or sand between the distribution device and the limiting soil characteristics shall be considered non-conforming.

The Agency notes that inclusion of the above sentence represents the typical way in which standards are applied, i.e., existing systems are "grandfathered in" under the rules. This provision is found to be reasonable and necessary and not a substantial change.

7080.0100 ADVISORY COMMITTEE

51. 7080.0100, subp. 2, 3 and 4. Proposed changes to subp. 2 and 3 concerning updating names and clarification of language and changes to subp. 4 increasing the length of the term served as a Committee member from two years to four years are found to be reasonable and necessary.

7080.0110 SITE EVALUATION

52. In its final comment, the PCA staff proposed amending language in Subparts 3 and 4 of Part 7080.0110. These subparts were not published in the State Register because no changes in them were proposed originally. The changes are not discussed in the Statement of Need and Reasonableness. It is found that the proposed changes would be substantial and cannot be made at this time. They are substantial because they mandate soil borings and percolation tests. The rules proposed for change make no such mandates and have not, until now, been proposed to do so. The mandated procedures would involve the expenditure of labor, equipment and money. There has been no notice to the affected public, which could reasonably expect to have commented at the hearing had notice been given. That lack of notice cannot be cured in this proceeding. In order to amend the affected subparts, the Agency will have to publish notice in the State Register and initiate a separate rulemaking proceeding.

53. 7080.0110, subp. 5. In the original publication of the proposed rules, the PCA suggested identification of an additional site for an individual sewage treatment system should the installed treatment system fail and need to be replaced. This proposed rule is found to be reasonable and necessary because it does not mandate construction on property only where two suitable sites exist.

In its final comments, the Agency proposed to make identification of the "suitable additional site" a mandatory feature of the site evaluation, if such site was available. This proposal clarifies that it is not necessary to install systems only on property having more than one suitable site. Making identification of the alternate site mandatory is not a substantial change. It does not go to a new subject matter of significant substantive effect because the subject of an additional site was raised in the Rules as initially proposed.

7080.0120 BUILDING SEWERS

54. 7080.0120, subp. 2 concerning installation of water meters in new dwellings and other establishments provoked significant public comment. Such comments centered on concern that requiring water meters would be economically costly to homeowners. While the Agency believes that water meters are beneficial to system owners, in response to the public comment the Agency has proposed deleting the requirement of a water meter for new dwellings. This revision is proposed because the Agency believes that the industry is not ready to accept such a requirement. The water meter requirement for other establishments is to remain as a requirement. This deletion of the requirement for water meters for new dwellings is found to be reasonable and necessary, given the public comment, and does not constitute a substantial change.

Deletion of the words "new dwelling", without specifying which establishments are required to install water meters, however, leaves the proposed rule unspecific and vague. A person not familiar with the history of this rule would not know whether or not it includes new dwellings. Such a result is unreasonable. In such a form, it cannot be passed at this time. The Administrative Law Judge recommends insertion of the language "new establishments other than new dwellings" in the affected sentence in order to correct this defect. Such a change would not be substantial and is found to be necessary and reasonable.

7080.0130 SEWAGE TANKS

55. 7080.0130, subp. 1, item C. At the Detroit Lakes hearing on September 7, 1988, Mr. William Patnaude made suggestions which the Agency has determined are appropriate revisions of the proposed changes. The revisions are insertion of the phrase "with adequate tensile and comprehensive strength" following the word "constructed" at line 10, page 21 and insertion of the phrase "and manhole cover" following the word "top" at line 23, page 10. Because these additions serve to further clarity of the rule, the proposed revisions are found to be reasonable and necessary and do not constitute a substantial change from the proposed rules. All other proposed changes to 7080.0130, subp. 1 are found to be reasonable and necessary.

56. 7080.0130, subp. 2, item M(3). Requiring an inspection pipe between the inlet and outlet baffles of the septic tank is found to be reasonable and necessary. The inspection pipe serves to make inspection of the septic tank easier, will yield a more accurate assessment of the sludge and scum accumulation and will decrease the likelihood of baffle damage by improper pumping. Insertion of the words "or manhole" at line 29, as proposed in the Agency's final comments, is clarifying and editorial in nature and found not to be necessary and reasonable and not a substantial change.

57. The proposed rule 7080.0130, subp. 2, item P adds design standards for outlet pipes. The proposal reflects advanced technology and knowledge concerning individual sewage treatment systems and responds to current problems of individual sewage treatment systems. It is found to be reasonable and necessary as published originally. In final comments, the PCA staff proposed the insertion of "American Society for Testing and Materials" before the word "schedule" on line 14, page 12 to clarify the meaning of schedule 40 plastic pipe. The proposed revision is found to be necessary and reasonable and not a substantial change from the rules as proposed.

58. 7080.0130, subp. 3, item A. In final comments, the Agency proposes to revise its citation at line 27 to rule 7080.0020, subp. 7, so that the reference will be correct. This revision is found to be reasonable and necessary and not a substantial change.

59. 7080.0130, subp. 3, item B. The Administrative Law Judge raised a concern at the hearing regarding lines 6-8 on page 13. Concerns centered upon the definition of "normal sewage", what was the biological oxygen content demand of normal sewage, and whether the language "must consider" made the language a rule. The Agency has subsequently decided that it would be appropriate to delete the following language:

> Establishments discharging sewage containing a biological oxygen demand higher than normal sewage must consider increasing septic tank liquid capacity.

Revision of subp. 3, item B is found to be reasonable and necessary given the lack of a definition of normal sewage; the revision is not a substantial change in the rule because the effect of the rule is the same.

60. 7080.0130, subp. 3, item C. In its final comments, the PCA staff proposed to modify the rule originally proposed by replacing the words "added to" with "installed in" at the beginning of line 13 on page 13. This revision is found to be reasonable, necessary and not a substantial change given that the revision clarifies the requirement. The original language implied that newly constructed buildings with garbage disposals as original equipment were exempt from the increased septic tank capacity requirement. The final language is designed to make it clear that new construction is not exempt.

This item generated much controversy at the hearings and throughout the rulemaking process. The general requirement is that minimum septic tank capacities increase by 50 percent for any building that has a garbage disposal system installed. Opposition was voiced by ISTS installers and maintenance people and by local zoning and sanitation officials. In areas where Chapter 7080 requirements have been adopted, permits could not be issued to persons installing garbage disposal systems unless their tank capacities meet the new requirements. The biggest problem is anticipated in situations where a person decides to add a garbage disposal unit to a dwelling where the septic tank conforms to current standards but is too small to conform to the 50 percent-increased minimum tank capacity. In such cases, the consumer is faced with either paying expenses far greater than the purchase and installation of a garbage disposal unit or with being out of compliance. Opponents of the requirement argue that greater consumer and dealer education is necessary before the requirement can be enforced in a realistic manner. Their argument is compelling. It is foreseeable that many people will simply opt to install the modern convenience without giving thought to whether their septic tank conforms to the standard required. They will be in violation inadvertently.

The Administrative Law Judge is persuaded, however, that the new minimum tank size requirements for residences and other establishments are needed and reasonable. He is persuaded by the Agency's Statement of Need and Reasonableness, Ex. 12, pp. 28-30. The problem is that unless the septic tanks are large enough, not enough of the solid wastes and grease added to the ISTS by garbage disposal systems will settle out. The pathogenic solids content of effluent will also increase if the tanks are too small. Increased tank capacity is also expected to lower maintenance costs because more of the solids will digest. Fewer pathogens will be discharged as effluent, so the public health and welfare will be more adequately protected and the environment better preserved.

If the solids associated with garbage disposal systems are not removed from wastewater via the septic tank, they will damage the soil treatment area of the affected ISTS. No opponent of the proposed standard has challenged that argument. While the economic impact on an existing structure is considerable if installing a new tank is needed to conform, that cost is less than that associated with replacing an entire system that fails due to solids accumulating in the soil treatment area.

The existing Chapter 7080 did not provide for the use of garbage disposals because they were not used as commonly a decade ago. The proposed change, found above to be necessary and reasonable, takes into account society's changing wastewater production patterns associated with their use.

61. 7080.0130, subp. 3, item D. The staff proposes to modify the rule as originally published by deleting the words "solids handling" from line 17, page 13 so that the rule's coverage is not limited to solids handling pumps only. It is also proposed, in final comments, to modify lines 24-26, page 13 to read as:

. . . capacity of the first tank. Owners of multiple tank systems having more than two tanks may increase the volume of the sewage delivered in each pump cycle by ten percent.

The reason for this revision is to clarify the language to reflect the intent to allow an optional design at the discretion of the owner. The upper limit (10 percent) is an engineering judgment. The original proposal created an unclear mandate. These revisions are found to be reasonable, necessary and not substantial.

62. 7080.0130, subp. 5. This subpart imposes a maintenance requirement on owners of individual sewage treatment systems and prohibits system additives containing hazardous materials and use of additives to avoid maintenance. The Agency's final proposal is to amend lines 10-11, page 14 to read as follows:

> . . . less frequently than every three years, inspect and measure the accumulations of sludge, which includes the settled materials at the bottom of the tank, and scum, which includes grease and other floating materials at the top of the tank. The owner of any septic tank or the owner's agent must . . . .

The inclusion of the above phrase serves to clarify what must be measured in the septic tank. The Administrative Law Judge recommends inserting the phrase "accumulations of" immediately prior to the word "scum". This addition is editorial and would not be a substantial change. The revision finally proposed by the staff is found to be necessary and reasonable and does not constitute a substantial change from the originally-published proposal.

The ISTS Advisory Committee and local officials support the proposed frequency of three-year inspections as provided in Subpart 5.A. It is argued that there will not be any undue hardship to system owners and that the benefits of proper maintenance are substantial.

63. Based upon comments received at the hearing, the Pollution Control Agency has proposed to add an item D to 7080.0130, subpart 5. The additional language would read:

> 7080.0130, Subp. 5.D.
>
> D. When an individual sewage treatment system is permanently abandoned, the tank shall either be removed or shall be filled with soil.

The Agency is without statutory authority to adopt a rule covering the subject of abandonment of ISTSs. Minn. Stat. § 115.03, subd. 1(e) limits the PCA's authority in this regard to making rules for the "installation or operation" of disposal systems. Absent specific statutory authority to make rules governing abandonment, the Agency cannot act. The Legislature specified the limit of the Agency's authority to govern installation and operation of sewer systems. The Agency's argument that abandonment is a form of maintenance is unpersuasive.

In addition, adoption of a rule on abandonment, a subject matter not addressed in the original publication in the State Register, would constitute a substantial change and could not be adopted at this time, even if the Agency had the requisite subject matter authority. Again, the argument that abandonment is a form of "long-term maintenance" is unpersuasive. The rules as published did not contain any provision regarding abandonment. The subject of abandonment was not discussed in the Statement of Need and Reasonableness. The proposed change is substantial because it goes to a new subject matter of significant substantive effect and it makes a major substantive change not raised in the original notice of hearing in such a way as to invite reaction at the hearing. The removal or filling of a septic tank involves potentially significant expenditure of labor, equipment and money. The public should be given notice and an opportunity to comment. The Agency could cure this defect by proper publication of notice, but the Judge believes the requisite statutory authority is absent in any case.

The Agency staff cites Minnesota Ass'n. of Homes for the Aging v. Dept. of Human Services, 385 N.W. 2d 65 (Minn. App. 1986) as authority for its argument that imposing requirements regarding abandonment of septic systems is not, at this point in time, a substantial change. The Administrative Law Judge is not persuaded that the cited case applies. The Court's opinion stands only for the proposition that statutory rulemaking procedures specifically contemplate modifications of proposed rules. There is no problem with that general proposition. However, making rules governing abandonment is not a modification of an original proposal. It is a whole new subject matter. This case is readily distinguishable from the rulemaking process involved in Homes for Aging, which was a contested case in which one of the parties sought to challenge the underlying rulemaking procedures when it was found out of compliance with the rule. The Court noted that the Administrative Law Judge in the rulemaking proceeding specifically found that the rule as amended during the process was necessary and reasonable and that the amendment did not constitute a substantial change. The fact that the amendment was not discussed in the Department's Statement of Need and Reasonableness did not bar its ultimate adoption. The case turned on a determination by the Administrative Law Judge that the rule had not "been modified in a way which makes it substantially different from that which was originally proposed" within the meaning of Minn. Stat. § 14.15, subd. 3. Here, for the reasons stated above, the Judge is unable to make that determination.

Minn. Stat. § 115.03, subd. 1 (e), is the statutory authority for these rules. It grants a general power to the PCA to adopt and modify rules in order to prevent, control or abate water pollution, and it grants specific power to adopt and modify rules "for the installation or operation of disposal systems or parts thereof, or for other equipment and facilities". (Emphasis supplied.) In In the Matter of New Rules Relating to Mineral Explorers and Exploratory Borings, HLTH-81-004-RL (11/19/80), this Judge was faced with an analogous issue. The Health Department proposed rules governing the location and construction of exploratory borings. The authorizing statute mentioned temporary and permanent abandonment but not location and construction. It was held that the Department was without authority to make rules on location and construction standards.

While the statute in this case grants the PCA a general power to adopt and modify rules regarding water pollution, it is illogical to conclude that the Legislature intended to grant authority by implication for rules relating to abandonment of disposal systems while expressly granting authority to make rules governing their installation and operation. If the general grant of

authority to adopt and modify rules regarding water pollution was the authority for these rules, the express authority to adopt and modify rules regarding installation and operation of disposal systems (to the Judge, an ISTS is clearly a disposal system) would be made superfluous.

The cases of State, by Spannus v. Lloyd A. Fry Roofing Co., 246 N.W.2d 696 (Minn. 1976) and Minnesota-Dakotas Retail Hardware Ass'n. v. State, 279 N.W.2d 360 (Minn. 1979) imply that, in Minnesota, authority to adopt a specific rule may not be implied from a statute expressly giving an agency certain other rulemaking powers without explicitly stating the authority to adopt the rules in question. It is therefore concluded that the Legislature did not intend Minn. Stat. § 115.03 (e) to be statutory authority for rules relating to the abandonment of septic systems.

64. In its final comments, the PCA staff proposed adding a final sentence to Subpart 5A, at page 16, line 14, which would read, "Removal of septage shall include complete removal of scum and sludge". This clarifying change is found to be necessary and reasonable and not a substantial change.

7080.0150 DISTRIBUTION OF EFFLUENT

65. 7080.0150, subp. 1, item A. The proposed change to 7080.0150 constitutes major restructuring of the rules to include 7080.0170 Final Treatment and Disposal under the section dealing with distribution of effluent. Subpart 1, item A requires the use of drop boxes instead of distribution boxes whenever feasible. This change reflects the greater efficiency of drop boxes and is supported by the Individual Sewage Treatment Systems Advisory Committee. This change also reflects the intent of the existing rules according to Dr. Roger Machmeier, University of Minnesota Extension Service, and chair-person of the Committee. (See Agency's Ex. 43.) The proposed change is found to be necessary and reasonable.

66. 7080.0150, subp. 1, item B. At the September 6, 1988, hearing in Hibbing, it was suggested that use of a "header pipe" would be permissible instead of a distribution box. As the Agency does not object to the use of a header pipe as a distribution device, the Agency has proposed a revised subp. 1, item B. to read as follows:

B. The distribution box must meet the following standards:

(1) The box must be watertight with either a removal cover or a cleanout pipe extending to finished grade and must be constructed of durable materials not subject to corrosion or decay.

(2) The inverts of all outlets must be the same elevation.

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

(4) Each drain field trench line must be connected separately to the distribution box and must not be subdivided.

(5) When sewage tank effluent is delivered to the distribution box by pump, either a baffle wall must be installed in the distribution box or the pump discharge must be directed against a wall or side of the box on which there is no outlet. The baffle must be secured to the box.

67. The additions and modifications in the finally-proposed Subpart 1.B do not constitute substantial changes in the rules as originally proposed. Subitem (1) allows installation of a cleanout pipe instead of a removable cover; the change merely provides an alternative to a removable cover without changing the standards for distribution boxes. Subitem (2) provides greater clarity by the deletion of an unnecessary complicating phrase. Revision of subitem (3) includes the proposed requirement while including a means to allow use of a header pipe. The revised subitem (4) is essentially the proposed subitem (5). The revised subitem (5) is essentially the proposed subitem (6). The originally-proposed subitem (4) has been deleted because it was unnecessary. Its purpose was to assure removal of additional solids, which is not a primary purpose of a distribution box. The subpart as finally proposed is found to be necessary and reasonable.

68. 7080.0150, subp. 1, item C, subitems (1)-(4). Subitems (1), (3), and (4) are the same as existing Part 7080.0170, subp. 2, item C, subitems (9)(a), (11) and (12). Subitem (2) is virtually identical to Part 7080.0170, subp. 2, item C, subitem (9)(b) except that it allows holes in the pipes to be placed up to 40 inches apart because of the nominal length of pipe available. The proposed provisions are found to be reasonable and necessary.

69. 7080.0150, subp. 1, item C, subitem (5). In its final comments, the Agency has proposed inserting, after "other devices", line 19, page 17, the phrase "such as corrugated tubing wrapped with a permeable synthetic material or a chambered trench or bed". The Administrative Law Judge finds that inclusion of the proposed phrase clarifies "other devices" and reflects advanced technology on individual sewage treatment systems. (See Agency Exs. 59 and 64.) It is therefore found to be reasonable and necessary and not a substantial change from the proposed rules.

70. 7080.0150, subp. 2, item A. In its final comments, the PCA has proposed restructuring lines 30-34, page 17 to read as follows:

A. Pressured distribution must be used for the following soil treatment systems:

(1) for all mound systems;

(2) for systems where the soil percolation rate is 0.1 to 5 minutes per inch if the effluent is pumped to a seepage bed or to trenches which are all at the same elevation.

The restructuring was proposed to clear up potential confusion regarding which systems required use of pressure distribution. The finally-proposed language accomplishes that purpose. The restructuring of the item does not constitute a substantial change from the proposed rule. Subpart 2A as finally proposed

is found to be necessary and reasonable. Public comments have both supported the requirement of pressure distribution for mound systems and have criticized the requirement as precluding the use of gravity distribution for mound systems. The Agency has established the reasonableness and necessity of pressure distribution in its Statement of Need and Reasonableness. (PCA Ex. 12, pp. 35-36.)

71. 7080.0150, subp. 2, item B. In its final comments, PCA staff proposed to delete the word "excessive" from the subpart, leaving the language unchanged from the existing rule. This change is not substantial and is found to be needed and reasonable.

72. 7080.0150, subp. 2, item D. At line 12 of page 19, the staff proposed, in final comments, to insert the word "pressure" between "average" and "head". This is a clarifying change. It is found to be necessary, reasonable and not a substantial change.

73. 7080.0150, subp. 2, item F is similar to the fourth sentence of Part 7080.0220, subp. 5, item A, subitem (16). The maximum allowable spacing between laterals is changed from 40 to 60 inches to make the requirements for pressure distribution laterals consistent with requirements for gravity distribution. Similarly, the distance between the lateral and the bottom edge of the rock layer is increased from 20 inches to 30 to be consistent with gravity distribution requirements. Both changes are found to be reasonable and necessary.

74. 7080.0150, subp. 2, item G. Item G is found to be reasonable and necessary because it provides for greater flexibility in material choice while maintaining the performance standards.

75. 7080.0150, subp. 2, item H. This item is found to be reasonable and necessary in order to prevent improper distribution of effluent throughout the soil treatment areas.

76. In response to comments by Bob Bergh in Detroit Lakes, which remarks were followed by a written submission, the PCA staff proposes to add a new subpart (.0150B), with appropriate renumbering, to recognize that valve box systems meet the intent of drop box distribution. The new language is found to be necessary, reasonable, and not a substantial change. It reads:

> 7080.0150 Distribution of Effluent.
>
> Drop boxes or valve boxes must be used to distribute effluent to individual trenches in a soil treatment system unless the necessary elevation differences between trenches for drop boxes cannot be achieved by natural topography or by varying the excavation depths, in which case a valve box or a distribution box may be used.
>
> A. Drop boxes shall meet the following standards.
>
> (1) The drop box . . .
>
> B. Systems using valve boxes shall comply with requirements in 7080.0170 Subp. 2.D. The valve boxes shall meet the following standards.

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

(2) The invert of the inlet pipe shall be at least one inch higher than the inverts of the outlet pipe to the next trench.

(3) The inverts of the outlet pipe to the trench shall be at least two inches higher than the invert of the outlet pipe of the trench in which the box is located.

(4) When sewage tank effluent is delivered to the valve box by a pump, either a baffle wall must be installed in the distribution box or the pump discharge must be directed against a wall or side of the box on which there is no outlet. The baffle must be secured to the box and must extend at least one inch above the crown of the inlet flow line.

(5) The valve box shall have a removable cover either flush or above finished grade or covered by no more than six inches of soil.

77. 7080.0160, subp. 3, item B. In its final comments, the Agency proposed to replace the originally-published final sentence subpart 3.B with the following language:

Perforation discharge will be determined by the following formula:

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

where: Q = discharge in gallons per minute

C = .060 - coefficient of discharge

D = perforation diameter in inches

H = head in feet

Specification of the standard formula brings clarification to the perforation discharge requirement. The Administrative Law Judge recommends that letters C, D and H in the formula and following definition be made consistent, i.e., either all lower case or all upper case lettering. The Administrative Law Judge also advised the Agency to make known to district offices, designers and inspectors the availability of the On-Site Sewage Treatment Manual produced by the University of Minnesota Extension Service and the Pollution Control Agency which contains charts based upon the above formula. The inclusion of the above formula is found to be reasonable, necessary and not a substantial change.

78. In response to written comments by Jeff Peterson of Scott County, the PCA staff proposed addition of a subitem G to subpart 3 to set a minimum reserve capacity for dosing chambers. The provision is also aimed at

preventing sewage back-up in the event of a pump failure. The proposed language is found to be reasonable, necessary and not a substantial change. It reads:

> G. The dosing chamber for a pressure distribution system shall either include a two pump system or shall be sized to include a minimum reserve capacity of seventy-five percent of the daily design flow.

79. 7080.0170, subp. 2, item A, subitems (2) and (3) are found to be reasonable and necessary. The additions are definitions which were inadvertently omitted from the existing rules.

80. 7080.0170, subp. 2, item A, subitem (4) imposes the requirement that for seepage beds, the bottom areas must be 1.5 times the soil treatment areas required in Table III (page 21, lines 12-25) for trench bottoms unless pressure distribution is used. This exception for pressure distribution has provoked some adverse public comments to the effect that seepage bed bottoms should be the same size as trench bottoms for all systems. Because the Agency has based this exception on sufficient evidence (see Agency's Exs. 58 and 59), the proposed language is found to be reasonable and necessary.

81. 7080.0170, subp. 2, item A, subitem (4). The Agency has proposed revising the reference for special requirements at lines 32 and 33, page 21 to read "see item F and 7080.0210, subp. 5, item A". This revision is found to be reasonable and necessary and not a substantial change.

82. Table IV at 7080.0170, subp. 2A(3). In its final comments, the Agency proposed deletion of the word "presently" at lines 38 and 39, page 22. This is a clarifying change that is found to be necessary, reasonable and not substantial.

83. 7080.0170, subp. 2, item B, subitem (5). The Agency's final comments propose deletion of the phrase "unless evaluation of geologic and subsurface conditions indicates that a closer spacing is allowable" from lines 8-10 on page 23. As the Agency correctly states, the phrase is redundant given the variance provisions contained in the rule. The proposal is found to be necessary, reasonable and not a substantial change.

84. 7080.0170, subp. 2, item C, subitem (2) is found to be reasonable and necessary since it serves to differentiate between a bed and a trench, sets a maximum width for beds and specifies a minimum distance between beds.

85. 7080.0170, subp. 2, item C, subitem (9) serves to clarify that drainfield rock must encase the distribution pipes to a two-inch minimum depth. The proposed requirement regarding level drainfield rock is a recognized construction requirement and the provision was mistakenly omitted from the existing rules. Subitem (9) is found to be reasonable and necessary in order to allow for proper distribution of effluent.

86. 7080.0170, subp. 2, item C, subitem (10). In its final comments, the Agency proposed to modify proposed subitem (10), at lines 9-12, page 25 so that the last sentence reads:

> The drainfield rock shall be covered with either a permeable synthetic fabric or a four-inch compacted layer of hay or straw covered with untreated building paper.

This modification reflects public comments concerning the advisability of a building paper drainfield rock cover without any straw and of the need for compaction of straw. It is found to be reasonable and necessary since it makes the cover requirements consistent for all soils and does not allow the use of building paper or hay or straw alone as cover material over drainfield rock. The proposed first sentence is not a substantial change from the originally-proposed rule.

87. In response to a comment from Olmsted County, the staff proposed in its final comments to add a sentence to the end of proposed subitem C(10) to meet the problem of decomposition of hay, straw or building paper where drop box distribution systems are deployed. This additional sentence is found to be necessary and reasonable and is not a substantial change. It reads:

> Where a drop box distribution system is used to fill a trench to within 2 inches of the top of the drainfield rock, a permeable synthetic fabric must be used to cover the drainfield rock.

88. 7080.0170, subp. 2, items E and F. The Agency has demonstrated sufficient support for standards regarding slowly permeable soils and rapidly permeable soils in its Statement of Need and Reasonableness and additional comments, with reference to Agency Exhibits 28 and 50-53. The language of these items, in which no further change was proposed, is found to be necessary and reasonable.

89. Two additional changes from the original publication are proposed, at page 28, line 3 and at page 33, line 31. It is proposed to substitute the words "at the original site" for "in situ" at those points. These changes are editorial and clarifying and not a substantial change. The new language is found to be necessary and reasonable.

90. In final comments, the PCA staff proposed addition of the word "or" at the end of line 14, page 28 and substitution of "or" for "and" at line 16 in order to clarify that choices (a), (b) and (c) are alternatives. The proposal is found to be necessary and reasonable and not a substantial change.

91. 7080.0170, subp. 2, item G, subitem (1). Item G establishes mound systems as standard systems rather than alternative systems. Classification of mound systems as standard systems is based upon their successful, beneficial use in Minnesota and other states. The language used in the new item is similar to existing language in Part 7080.0210, subp. 5, item A. However specific language has been added to prevent common design and construction errors. Subitem (1) is such a change. It is found to be reasonable and necessary.

92. 7080.0170, subp. 2, item G, subitem (4), a change from the existing rule, is found to be reasonable and necessary in order to prevent construction of mounds on damaged soils.

93. 7080.0170, subp. 2, item G, subitems (3) and (5). The Agency proposes substituting the term "required absorption width" for the term "required basal width" at page 29, line 4 and substituting the term "absorption area" for the term "basal area" at page 29, line 10. This

modification is in response to public comments made regarding difficulty of interpreting both phrases. As a consequence of the first proposed modification, 7080.0020, subp. 28a, the definition of required basal width, will be instead the definition of "required absorption width". As a consequence of the second proposed modification, a new definition would be added as 7080.0020, subp. 1a (line 32, page 1). The definition would read as: "'Absorption area' means that area below a mound which is designed to absorb effluent. This area is equal to the required absorption width multiplied by that length of the rock layer."

First, the Administrative Law Judge recommends, for the purpose of consistency, deleting "required basal width" and inserting "required absorption width" at page 29, lines 25 and 29 and deleting "basal area" and inserting "absorption area" at page 29, lines 15, 34 and 35 and at page 30, line 2. Second, the Administrative Law Judge recommends substituting "by" for "times" in the proposed definition. Similar editorial changes should be made wherever the terms "basal area" or "required basal width" appear. The Administrative Law Judge finds that the modifications are clarifications for the purpose of greater understanding. They are found to be reasonable, necessary, and not substantial changes. This is true whether or not the suggestions of the Judge for the language specified above are adopted.

94. 7080.0170, subp. 2, item G, subitem (7). In response to comments made at the September 26, 1988 hearing in St. Paul, the Agency proposes modifying page 29, line 33 to read as follows:

> (7) Mounds may be located on natural slopes exceeding 12 percent if the absorption area is designed to be at least 25 percent larger than that required in Table V.

This modification is found to be reasonable and necessary to allow safer construction of mound systems on slopes greater than 12 percent while allowing for technological advances concerning mound systems. Its adoption would not constitute a substantial change from the originally-published proposal because the subject matter (construction of mound systems on steep slopes) remains the same.

95. 7080.0170, subp. 2, item G, subitem (10) extends the existing subitem (9) prohibition against driving a rubber tired tractor on soil after soil preparation to all soils. Doing so prevents compaction of the soil. It is found to be reasonable and necessary.

96. 7080.0170, subp. 2, item G, subitem (12). In response to public comments at the September 20, 1988 hearing in St. Paul, the Agency has proposed changing the maximum length of vegetation allowed on a mound site from two inches to four inches (page 30, line 10). The four-inch maximum would result in fulfilling the purpose of the provision, namely removal of dead or unwanted vegetation, while permitting use of common grass lawn mowers. As the subject matter of the provision is not changed, it is not a substantial change. It is reasonable and necessary to allow removal of vegetation with common mowers. It is found that the proposed change meets that goal and is not a substantial change.

97. 7080.0170, subp. 2, item G, subitem (13). The Pollution Control Agency staff has proposed modifying subitem (13) at lines 30-33 to read as follows:

This sand must be placed by using a construction technique that minimizes compaction. A crawler tractor with a blade or unloaded bucket must be used to push the sand into place. At least six inches of sand must be kept beneath equipment to minimize compaction of the plowed layer. When placing sand over the drainfield rock with a back-hoe, the tractor must not drive over the drainfield rock or absorption area of the mound. The sand layer upon which the drainfield rock is placed must be level.

This modification is found to be reasonable and necessary. It does not prevent placement with a bucket, a concern expressed in public comments, while ensuring proper placement. It is not a substantial change.

98. In response to a written comment by Mr. Peterson of Scott County, the PCA Staff proposed adding a sentence to item G, subitem (16). Its insertion repeats an existing requirement. It is not a substantial change.

7080.0200 VARIANCE

99. 7080.0200 is found to be reasonable and necessary. Changes from the existing rule are proposed merely for the purpose of clarity.

7080.0210 APPENDIX A: ALTERNATIVE SYSTEMS

100. At 7080.0210, subp. 2 the PCA recommended in final comments that the reference to 7080.0240 be changed to 7080.0210. This editorial change is found to be necessary and reasonable and not a substantial change.

101. 7080.0210, subp. 3, items C. and D.1. The Agency has proposed modifications to the originally published items C. and D.1. The first involves substituting "drainfield rock" for "filter material" on line 22, page 33. This change was overlooked when proposed changes were made. The second change involves substituting "density" at the original site" for "in situ density" on line 31, page 33. Both changes are found to be reasonable, necessary, and not substantial changes. The same determination applies to the change of "filter material to "drainfield rock" at lines 10 and 12, page 35.

102. In its final comments, the Agency staff proposed inserting a change in existing Rule 7080.0210, subpart 4.B.(3)(b). The change would mandate a different size of sewer pipe (from at least two inches in diameter to no more than two inches in diameter) for greywater systems. The reasoning here is analogous to that in Findings 52 and 63 - since no notice was given in the originally-published rules, no discussion of the subject appears in the Statement of Need and Reasonableness and the subject was not raised at the hearing, but only in final written comments, adoption of the new standard at this point would be a substantial change. The change is substantial because it makes a major substantive change (in standard sewer size) not raised by the original notice of hearing in such a way as to invite reaction at the hearing within the meaning of Minn. Rule 1400.1100, subp. 2. It is reasonable to assume that a change in required pipe size would have provoked reaction from members of the system installation industry. The lack of notice cannot be cured in

this proceeding. In order to amend the affected subpart, the Agency will have to publish notice in the State Register and initiate a separate rulemaking proceeding.

103. 7080.0210, subp. 5, item A, subitem (1). The Agency, in its response to public comments, has proposed adding the following language:

> A. Mounds.
>
> Mounds may be allowed on soils with percolation rates slower than 120 minutes per inch if the following special design requirements, in addition to those listed in 7080.0170, subp. 2, item G, are used:
>
> (1) The width of the drainfield rock layer must not exceed 10 feet.
>
> (2) Beds shall not be installed side by side.
>
> (3) All vegetation in excess of two inches in length from the total area selected for mound, including the area under the dikes.

The Agency believes that mound systems installed where the soil percolation rate is slower than 120 minutes per inch are more appropriately considered alternative systems. The above provision concerning vegetation in excess of two inches is an exception to proposed Rule 7080.0170, subp. 2, item G, subitem (12), which has been modified to allow four inches of vegetation rather than two inches of vegetation. The Agency argues that less vegetation is mandated because of the susceptibility of the soil to hydraulic failure due to soil surface sealing.

As the Agency has advanced legitimate rationales regarding this provision, the Administrative Law Judge finds that the modification is not a substantial change and is reasonable and necessary, except for part (3), which is impermissibly confusing and lacks proper sentence structure. In its proposed form, the language violates substantive principles of law because it fails to make a specific requirement. It is also found to be unreasonable in its present form. The Administrative Law Judge, however, recommends minor revision of the language regarding vegetation so as to provide clarity and specificity and cure the defect noted. Adding the words "must be removed" at the end of the sentence currently ending in "dikes" would provide the necessary clarity. This addition would not be a substantial change and is found to be necessary and reasonable.

104. 7080.0210, subp. 5, item A, subitem 2(a). In its response to final comments by the Department of Health, the PCA staff proposed changing the number "five" to "three" at page 41, line 6. The change is found to be reasonable, necessary and not a substantial change.

105. 7080.0210, subp. 5, item A, subitem (2)(b). In response to public comments from the Department of Health, the Agency proposed changing the number "3000" to "2000" on line 17, page 41. The change is found to be reasonable, necessary and not a substantial change.

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

CONCLUSIONS

1. That the Pollution Control Agency gave proper notice of the hearing in this matter.

2. That the Agency has 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.

3. That the Agency 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)(ii), except as noted at Findings 54, 63 and 103.

4. That the Agency has documented the need for and reasonableness of its proposed rules with an affirmative presentation of facts in the record within the meaning of Minn. Stat. §§ 14.14, subd. 2 and 14.50 (iii), except as noted at Findings 54 and 103.

5. That the amendments and additions to the proposed rules which were suggested by the Agency 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 the meaning of Minn. Stat. § 14.15, subd. 3, and Minn. Rule 1400.1000, Subp. 1 and 1400.1100, except as noted at Findings 52, 63 and 102.

6. That the Administrative Law Judge has suggested action to correct the defects cited in Conclusions 3, 4 and 5 as noted at Findings 52, 54, 63, 102 and 103.

7. That due to Conclusions 3, 4, 5 and 6, this Report has been submitted to the Chief Administrative Law Judge for his approval pursuant to Minn. Stat. § 14.15, subd. 3.

8. That any Findings which might properly be termed Conclusions and any Conclusions which might properly be termed Findings are hereby adopted as such.

9. That a finding or conclusion of need and reasonableness in regard to any particular rule subsection does not preclude and should not discourage the Agency 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 except where specifically otherwise noted above.

Dated this 23rd day of November, 1988.

Richard C. Luis

RICHARD C. LUIS
Administrative Law Judge

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