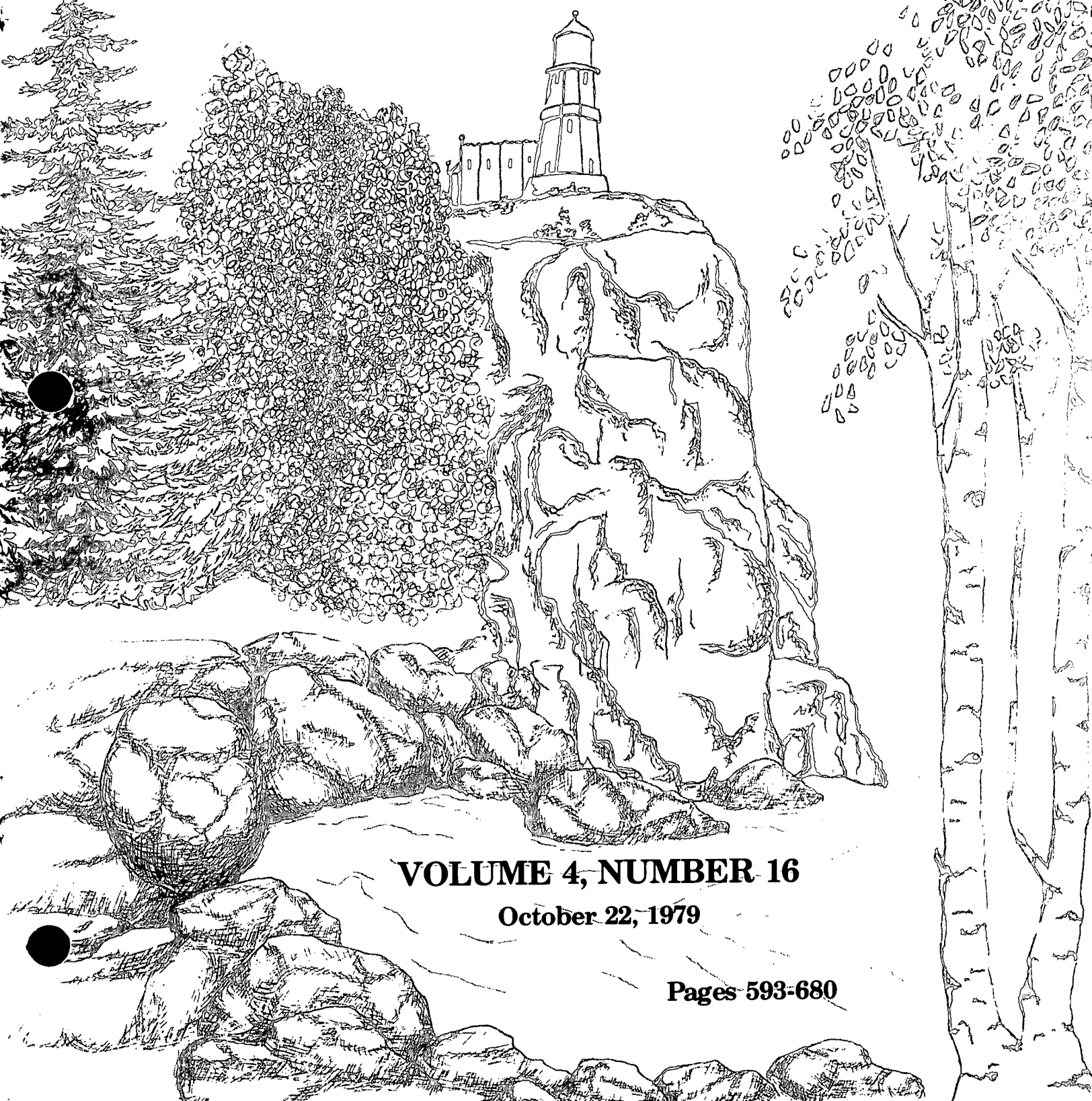
STATE REGISTER

STATE OF MINNESOTA



VOLUME 4, NUMBER 16

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Pages 593-680

STATE REGISTER

Volume 4 Printing Schedule for Agencies

Issue Number	*Submission deadline for Executive Orders, Adopted Rules and **Proposed Rules	*Submission deadline for State Contract Notices and other **Official Notices.	Issue Date
	SCHEDULE FOR VOLUME 4		
17	Monday Oct 15	Monday Oct 22	Monday Oct 29
18	Monday Oct 22	Monday Oct 29	Monday Nov 5
19	Monday Oct 29	Monday Nov 5	Monday Nov 12
20	Monday Nov 5	Tuesday Nov 13	Monday Nov 19

*Deadline extensions may be possible at the editor's discretion; however, none will be made beyond the second Wednesday (12 calendar days) preceding the issue date for rules, proposed rules and executive orders, or beyond the Wednesday (5 calendar days) preceding the issue date for official notices. Requests for deadline extensions should be made only in valid emergency situations.

**Notices of Public Hearings on proposed rules are published in the Proposed Rules section and must be submitted two weeks prior to the issue date.

Instructions for submission of documents may be obtained from the Office of the State Register, Suite 415, Hamm Building, 408 St. Peter Street, St. Paul, Minnesota 55102.

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The *State Register* is the official publication of the State of Minnesota, containing executive orders of the governor, proposed and adopted rules of state agencies, and official notices to the public. Judicial notice shall be taken of material published in the *State Register*.

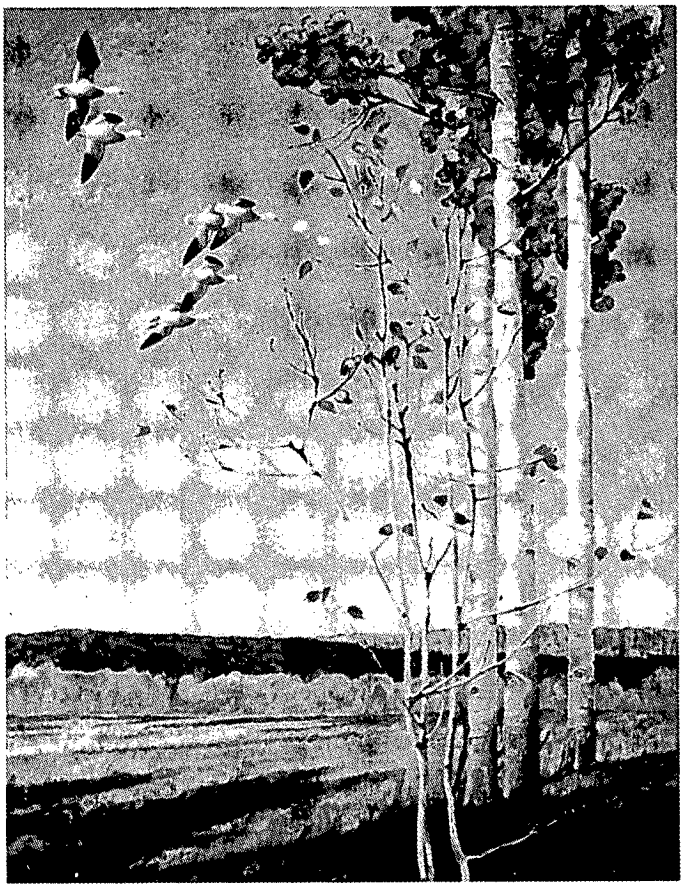
Cover graphic: *Split Rock Lighthouse*, pen and ink drawing by Barbara J. Peterson.

CONTENTS

MCAR AMENDMENTS AND ADDITIONS

All adopted rules published in the *State Register* and listed below amend rules contained in the Minnesota Code of Agency Rules (MCAR). Both proposed temporary and adopted temporary rules are listed here although they are not printed in the MCAR due to the short-term nature of their legal effectiveness.

The *State Register* publishes partial and cumulative listings of all proposed and adopted rules on the following schedule: issues 1-13, inclusive; issues 14-25, inclusive; issue 26, cumulative for 1-26; issues 27-38, inclusive; issue 39, cumulative for 1-39; issues 40-51, inclusive; and issue 52, cumulative for 1-52. The listings are arranged in the same order as the table of contents of the MCAR.



BIRDS IN FLIGHT, an oil by Minnesota artist F. Lee Jacques, depicts the southern migration of Snow Geese in the fall. (Courtesy of the J. F. Bell Museum of Natural History, University of Minnesota)

EXECUTIVE ORDERS

Executive Order No. 79-35

Providing for a Governor's Council on Minnesota Career Information Service and Assigning Responsibilities to the Department of Education

I, Albert H. Quie, Governor of the State of Minnesota, by virtue of the authority vested in me by the Constitution and applicable statutes, hereby issue this Executive Order:

WHEREAS, certain monies have been allocated by various grants, contracts, and appropriations to support a statewide career information service in Minnesota;

WHEREAS, a service has been established and it is necessary and advisable to make certain changes and to provide for continuation of services; and,

WHEREAS, a report must be made to the legislature concerning the present operations, funding requirements, effectiveness and need for the services;

NOW, THEREFORE, I Order:

1. To improve efficiency and avoid duplication in State government, the Commissioner of Administration shall, pursuant to Minn. Stat. § 16.125, transfer from the Minnesota Occupational Information System Board to the Commissioner of Education the powers, duties, assets, personnel, obligations, and appropriations existing pursuant to Executive Order No. 79-10, Minnesota Laws of 1979, ch. 335, § 3, subd. 15 and Minnesota Laws of 1977, ch. 449, § 3, subd. 2 except for the responsibility for preparation of the report discussed in paragraph 4 below.

2. Pursuant to Minn. Stat. § 15.0593, the Governor shall appoint an advisory council of fifteen (15) members, who shall be selected to represent the users and producers of occupational and career information services. The advisory council shall be named the "Governor's Council on Minnesota Career Information Service" and shall establish its own governing procedures, including election of appropriate officers. Staff assistance for the council shall be provided by the Commissioner of Education. The Commissioner of Education shall consult with the advisory board concerning the operation of the Minnesota Career Information Service and shall be the Governor's designee to the council.

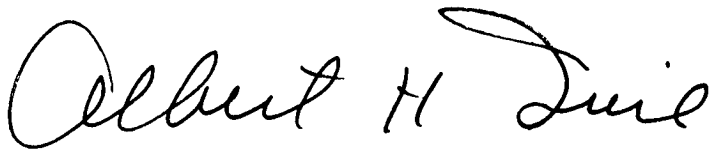
3. The Commissioner of Education shall have such authority and responsibility as has heretofore existed in the Minnesota Occupational Information System Board and shall, pursuant to Minn. Stat. § 4.07, apply for, receive, and accept funds available through Title III of the Comprehensive Employment and Training Act of 1973, appropriations, fees, and other federal monies as available to perform duties of a Career Information Service.

4. The Higher Education Coordinating Board shall, pursuant to Minnesota Laws of 1979, ch. 335, § 3, subd. 15, prior to January 15, 1980, prepare a report dealing with the present operations, funding requirements, effectiveness, and demonstrated need for the continuation of the services provided hereunder.

5. This Order repeals Executive Order No. 79-10.

Pursuant to Minn. Stat. § 4.035, this order shall be effective on November 1, 1979 or 15 days after publication in the *State Register,* whichever is later, and shall remain in effect until July 1, 1980 or until rescinded by proper authority or it expires according to Minn. Stat. § 4.035.

IN TESTIMONY WHEREOF, I hereunto set my hand on this 2nd day of October, 1979.



Executive Order No. 79-36

Providing for the Establishment of the Governor's Task Force on Educational Policy

I, Albert H. Quie, Governor of the State of Minnesota, by virtue of the authority vested in me by the Constitution and applicable statutes, hereby issue this Executive Order:

WHEREAS, Minnesotans place a high value on education, recognizing the contribution of elementary-secondary schools to individual development, civic affairs, the health of communities, and the quality of life in the state as a whole, and

WHEREAS, the pressures of enrollment fluctuations, social changes, economic constraints, and new energy realities on Minnesota elementary and secondary schools require a fresh look at the financing, structure, delivery, and content of educational programs, and

WHEREAS, Minnesota citizens have demonstrated their commitment to providing a quality education for all young people by actively participating in local and regional planning task forces since 1976 and supporting local and state initiatives to improve school programs and facilities, and

WHEREAS, future state policy initiatives in education should reflect the contributions of Minnesota citizens,

NOW, THEREFORE, I Order:

1. Creation of a Governor's Task Force on Educational Policy.

   a. The Task Force shall consist of 15 members appointed by the Governor pursuant to Minn.

Stat. § 15.0593. Eight members shall represent a broad spectrum of Minnesota citizens with a demonstrated interest in education. The Governor shall appoint one of these eight public members to serve as chairperson. These eight positions shall be filled through the open appointments process, pursuant to Minn. Stat. § 15.0597. The remaining seven positions shall be filled from members of the educational community.

b. Task force members shall serve at the pleasure of the Governor. The chairperson of the Task Force shall inform the appointing authority of a member missing three consecutive meetings. After the second consecutive missed meeting and before the next meeting, the Task Force chairperson shall notify the member in writing that s/he may be removed if s/he misses the next meeting. In the case of a vacancy, the Governor shall appoint a person to fill the vacancy for the remainder of the unexpired term.

c. The Task Force meetings shall be conducted in accordance with *Robert's Rules of Order.*

d. Ex-officio members from the Legislative and Executive branches will be requested by the Governor to participate in Task Force activities.

e. All departments and agencies shall make available to the Task Force, upon request, policy and public information pertaining to programs which relate to education.

f. Terms of Task Force members shall expire June 30, 1981.

g. Members of the Task Force shall receive no per diem but may be paid expenses in the same manner as State employees, pursuant to Minn. Stat. § 15.0593.

2. The purposes of the Task Force are to:

a. Provide the opportunity for citizens to contribute to future state policy initiatives in elementary-secondary education.

b. Provide a state-level vehicle for synthesizing and expanding on the work of local and regional educational planning task forces mandated by the Legislature.

c. Provide a visible forum which is conducive to taking a fresh look at elementary-secondary education and developing innovative strategies to address specific concerns.

d. Initiate and maintain involvement in special studies relating to elementary-secondary education undertaken by other public and private organizations.

e. Explore options and develop substantive alternative strategies for public policy action in major areas of concern.

f. Provide recommendations for policy initiatives to the Governor and the Legislature based on findings.

3. The entire appropriation to the Task Force, as authorized by Laws of 1979, ch. 333, § 9, has been transferred, under the authority of Reorganization Order #103, from the Office of the Governor to the Minnesota State Planning Agency.

a. A Task Force Director has been appointed by the Governor. The Task Force Director shall report directly to the Office of the Governor.

b. The State Planning Agency shall provide administrative support to the Task Force.

c. The State Planning Agency shall act as fiscal agent for the Task Force, and, after receiving Task Force recommendations, may apply for, accept, and expend private and public funds pursuant to Minn. Stat. § 4.07 and 7.09.

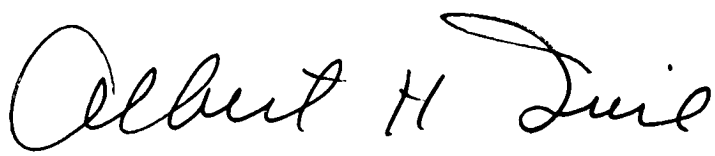
d. The work program of the Human Resources activity in the State Planning Agency, insofar as it addresses questions of elementary and secondary education policy, shall be designed to complement the work of the Task Force. Where necessary and feasible, the work programs of other State Planning Agency activities will be designed or modified to meet the needs of the Task Force.

e. The Minnesota Department of Education shall provide staff assistance to the Task Force as requested by the Task Force Director, insofar as it is necessary and feasible.

4. The Task Force shall prepare a final report to the Governor and the Legislature on or before February 1, 1981.

Pursuant to Minn. Stat. § 4.035, this order shall be effective 15 days after its publication in the *State Register* and shall remain in effect until June 30, 1981, unless it is rescinded by proper authority, or unless it expires in accordance with Minn. Stat. § 4.035.

IN TESTIMONY WHEREOF, I hereunto set my hand on this 3rd day of October, 1979.



RULES

The adoption of a rule becomes effective after the requirements of Minn. Stat. § 15.0412, subd. 4, have been met and five working days after the rule is published in the *State Register*, unless a later date is required by statutes or specified in the rule.

If an adopted rule is identical to its proposed form as previously published, a notice of adoption and a citation to its previous *State Register* publication will be printed.

If an adopted rule differs from its proposed form, language which has been deleted will be printed with strike outs and new language will be underlined, and the rule's previous *State Register* publication will be cited.

A temporary rule becomes effective upon the approval of the Attorney General as specified in Minn. Stat. § 15.0412, subd. 5. Notice of his decision will be published as soon as practicable, and the adopted temporary rule will be published in the manner provided for adopted rules under subd. 4.

Department of Health Environmental Health Division

Adopted Rules Relating to Licensing of Water Well Contractors and the Construction of Water Wells

The following amendments to rules were proposed and published at *State Register*, Volume 3, Number 18, pp. 932-970, November 6, 1978 (3 S.R. 932). The amendments beginning at 3 S.R. 934 and ending at 3 S.R. 958 are now adopted, with the changes shown below:

7 MCAR § 1.210 Definitions and policies.

A. For the purposes of these ~~regulations~~ rules promulgated pursuant to Minn. Stat. § ch. 156A, as amended, the terms defined in this section have the meanings given them, except where the context clearly indicates otherwise.

B. The following terms apply primarily to the licensing ~~regulations~~ rules 7 MCAR §§ 1.211-1.216, but are also applicable to the Water Well Construction Code, 7 MCAR §§ 1.217-1.230 when used therein.

1. "Commissioner" means the Commissioner of Health or his or her authorized representative.

2. "Council" means the Water Well Contractors Advisory Council created pursuant to the provisions of Minn. Stat. § 156A.06.

3. "Act" means Minn. Stat. §§ 156A.01-156A.08, as amended, under which these rules ~~and regulations~~ are promulgated.

4. "APA" means the Administrative Procedure Act, Chapter 15, Minnesota Statutes.

5. "Person" means any natural person, corporation, partnership, or other business association.

6. "Applicant" means any person who applies for a water well contractor's license pursuant to the Act.

7. "Application for examination" means the application submitted by an applicant from which the Commissioner determines whether the applicant is eligible to take the examination.

8. "Application for licensure" means the application submitted by an applicant upon his successful completion of the examination, or at the end of each calendar year for licensure renewal.

9. "Year of experience" means a year during which the applicant personally drilled five (5) water wells and was actively working in the trade for a period of 1,000 hours under the supervision of a licensed water well contractor. An applicant drilling 1,000 hours per year and completing fewer than 5 wells per year may qualify, if the experience is gained in constructing one or more large diameter wells (casing outer diameter is 10 inches or more) which are more than 500 feet deep. An applicant who seeks to qualify under this provision shall have his license limited to construction of such deep and large diameter wells.

a. Supervision of a drilling operation shall not be considered as an equivalent to personally drilling a well.

b. The experience must have been gained in Minnesota except that an applicant may provide the Commissioner with information demonstrating that his experience was gained in an area with the same or similar geological and other well drilling conditions as in the applicant's proposed well drilling operations territory in Minnesota. Such experience may be considered as meeting the experience requirement of these ~~regulations~~ rules. Applicants from states having no standards or licensing programs, or standards less strict than those adopted pursuant to Chapter 156A shall have obtained at least one year of experience in Minnesota under the supervision of a licensed water well contractor, in addition to that which is required under 7 MCAR § 1.211.

10. "Licensee" means a person who is licensed as a water well contractor pursuant to the provisions of the Act and these rules ~~and regulations~~.

KEY: RULES SECTION — Underlining indicates additions to proposed rule language. ~~Strike outs~~ indicate deletions from proposed rule language. **PROPOSED RULES SECTION** — Underlining indicates additions to existing rule language. ~~Strike outs~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated "all new material."

11. "Representative" means an individual who is in charge of the water well drilling and contracting operation and qualifies for licensure on behalf of a partnership, corporation, or other business association rather than on his own behalf.

12. "Upper termination of the well casing" means a point twelve (12) inches above the established ground surface.

13. "A water well drilling machine" means any machine or device such as a cable tool, hollow rod, or auger used for construction of a water well including drive point wells or a hoist or machine used in the well repair service which involves the modification to the well casing, screen depth or diameter below the upper termination of the well casing.

C. The following terms apply to the Water Well Construction Code, 7 MCAR §§ 1.217-1.230.

1. "Abandoned water well" means a well whose use has been permanently discontinued, or which is in such disrepair that its continued use for the purpose of obtaining ground water is impracticable or may be a health hazard.

2. "Administrative authority" means the Commissioner. When this code, 7 MCAR §§ 1.217-1.230, is adopted by any municipality of the State, such municipality may apply to the Commissioner for authorization to act as an inspection agent of the administrative authority to enforce the provisions of the Act and these rules ~~regulations~~. The inspection agent's authority shall be limited to inspections to determine compliance with the provisions of these ~~regulations~~ rules and to exercise any other powers specifically given the administrative authority by these ~~regulations~~ rules. The Commissioner may grant such authority if the municipality demonstrates that at least one of its employees is qualified and familiar with the well drilling operations in that municipality. Such authorization may be revoked without cause by the Commissioner or released by the municipality on ten days written notice. This section shall not preclude the Commissioner or any municipality from reaching an agreement authorized by Minn. Stat. § 471.59.

3. "Annular space" means the space between two cylindrical objects one of which surrounds the other, such as the space between a drillhole and a casing pipe, or between a casing pipe and liner pipe.

4. "Approved basement" means a private home basement with walls and floor constructed of concrete or equivalent which is not subject to flooding and not located within a flood plain.

5. "Aquifer" means a water-bearing formation (soil or rock horizon) that transmits water in sufficient quantities to supply a well.

6. "Casing" means an impervious durable pipe placed in a well to prevent the walls from caving and to seal off surface drainage or undesirable water, gas or other fluids to prevent their entering the well and includes specifically but not limited to:

a. "Temporary casing" means a temporary casing placed in soft, sandy or caving surface formation to prevent the hole from caving during drilling.

b. "Protective casing" means the permanent casing of the well.

7. "Coliform group" means all of the aerobic and facultative anaerobic, gram-negative, nonspore-forming, rod-shaped bacteria which ferment lactose with gas formation within 48 hours at 35° centigrade.

8. "Director" means the Director of the Division of Environmental Health of the Department, or his authorized representative, who shall carry out the administrative functions of these ~~regulations~~ rules on behalf of the Commissioner.

9. "Drawdown" means the extent of lowering of the water surface in a well and aquifer resulting from the discharge of water from the well.

10. "Dug well" means a well in which the side walls may be supported by material other than standard weight steel casing. Water enters a dug well through the side walls and bottom.

11. "Established ground surface" means the intended or actual finished grade (elevation) of the surface of the ground at the site of the well.

12. "Geological material" means all materials penetrated in drilling a well.

a. The following table lists materials other than consolidated rock classified according to average particle size (Wentworth 1922).

	Particle Diameters				Screen Slot No.	
Material	Millimeters		Inches		From	To
Clay	Up to 0.005		Up to 0.0002		—	—
Silt	0.005 - 0.062		0.0002 - 0.0025		—	—
Fine Sand	0.062 - 0.250		0.0025 - 0.010		2	10
Medium Sand	0.250 - 0.50		0.010 - 0.020		10	20
Coarse Sand	0.50 - 1.00		0.020 - 0.040		20	40
Very Coarse Sand	1.00 - 2.00		0.040 - 0.080		40	80
Fine Gravel	2.00 - 4.00		0.080 - 0.160		80	160
Coarse Gravel	4.00 - 62.5		0.160 - 2.50		160 and larger	
Cobbles	62.5 - 250.0		2.50 - 10.0		—	—
Boulders	250.0 and larger		10.0 and larger			

b. "Alluvium" is a general term for clay, silt, sand, gravel or similar unconsolidated material deposited during comparative recent geologic time by a stream or other body of running water as a sorted or semi-sorted sediment.

c. "Glacial drift (unconsolidated)" means a general term applied to all rock material (clay, sand, gravel and boulders) transported by a glacier and deposited directly by or from the ice or by running water emanating from the glacier.

d. "Glacial outwash" means a stratified sand and gravel removed or washed out from a glacier by meltwater streams and deposited in front of or beyond the terminal moraine or the margin of an active glacier.

e. "Hardpan" is a term to be avoided if possible, but when used means a hard impervious layer composed chiefly of clay, cemented by relatively insoluble materials, which does not become plastic when mixed with water and definitely limits the downward movement of water and roots.

f. "Shale" means rock consisting of hardened silts and clays.

g. "Sandstone" means cemented or otherwise compacted sediment composed predominately of sand.

h. "Limestone" means rock which contains at least 80% of carbonates of calcium and has strong reaction with HCl (muriatic acid).

i. "Dolomite" means rock which contains at least 80% of carbonates of magnesium and has a weak reaction with HCl (muriatic acid).

j. "Gypsum" means a soft light colored formation of calcium sulfate crystals and may be found as streaks in a shale formation.

13. "Grout" means neat cement, concrete, heavy drilling mud or heavy bentonite water slurry. Heavy drilling mud or heavy bentonite water slurry when used as grout shall be of sufficient viscosity to require a time of at least 70 seconds to discharge 1 quart of the material through an API (American Petroleum Institute) marsh funnel viscometer.

14. "Municipality" means a city, village, township, borough, county, district or other political subdivision of the State created by or pursuant to State law or any combination of such units acting cooperatively or jointly.

15. "Pitless adapter and unit."

a. "Pitless adapter" means ~~a device or assembly of parts which will permit water to pass through the wall of the well casing or extension thereof, and which provides access to the well and to the parts of the water system within the well in a manner to prevent entrance of pollution into the well and the water produced.~~ a device for above or below ground discharge designed for attachment to one or more openings through a well casing, and constructed so as to prevent the entrance of contaminants into the well.

b. "Pitless unit" means an assembly with cap which extends the upper end of the well casing to above grade, and constructed so as to prevent the entrance of contaminants into the well.

16. "Pollution" or "contamination" means the presence or addition of any substance to water which is or may become injurious to the health, safety or welfare of the general public or private individuals using the well; which is or may become injurious to domestic, commercial, industrial, agricultural or other uses which are being made of such water.

17. "Potable water" means water which is safe for human consumption in that it is free from impurities in amounts sufficient to cause disease or harmful physiological effects.

18. "Pressure tank" or "hydropneumatic tank" means a closed water storage container constructed to operate under a designed pressure rating to modulate the water system pressure within a selected pressure range.

19. "Priming" means the first filling of a pump with water and the action of starting the flow in a pump.

20. "Pump house" means a building constructed over a well exclusively to protect the well, pump, and water treatment equipment.

21. "Pump room" or "well room" means an enclosed structure, either above or in a below grade approved basement housing the pump, top of the well, a suction line or any combination thereof.

22. "Pumping water level" means the distance measured from the established ground surface to the water surface in a well being pumped at a specified rate for a specified period of time.

23. "Pumps and pumping equipment" means materials used or intended for use in withdrawing or obtaining ground water for any use, including without limitation, seals and other safeguards to protect the water from pollution and together with fittings, and controls to provide sanitary water storage facilities. "Installation of pumps and pumping equipment" means the selection of, and procedure employed in the placement and preparation for operation of, pumps and pumping equipment, including construction involved in making entrance to the well and establishing proper seals and other safeguards to protect ground water from pollution, including repairs to existing installations.

24. "Sewage" means the water carried waste products from residences, public buildings, including the excrementious or other discharges from the bodies of human beings or animals together with such ground water infiltration and surface water as may be present.

25. "Cesspool" means an underground pit into which raw household sewage or other untreated liquid waste is discharged and from which the liquid seeps into the surrounding soil or is otherwise removed.

26. "Seepage pit" or "dry well" means an underground pit into which a septic tank discharges household sewage or other liquid waste and from which the liquid seeps into the surrounding soil through the bottom and openings in the side of the pit.

27. "Septic tank" means a watertight tank of durable materials through which sewage flows very slowly and in

which solids separate from the liquid to be decomposed or broken down by bacterial action.

28. "Sewer" means a pipe or conduit carrying sewage or into which sewage may back up.

29. "Subsurface disposal field," "seepage bed," "drainfield," "percolation system," or "tile absorption field" means a system composed of open jointed tile lines buried in stones and shallow trenches or beds for final disposal into the ground of sewage affluent from a septic tank. The septic tank effluent is applied to land by distribution beneath the surface through the open jointed lines.

30. "Static water level" means the distance measured from the established ground surface to the water surface in a well neither being pumped, nor under the influence of pumping nor flowing under artesian pressure.

31. "Subterranean gas" means a gas occurring below the land surface. It may be flammable such as methane or highly toxic as hydrogen sulfide and may be associated with ground water.

32. "Suction line" means a pipe or line connected to the inlet side of a pump or pumping equipment or any connection to a well casing that may conduct non-system water into the well because of negative pressures.

33. Water varieties mean:

a. "Ground water" means the water in the zone of saturation in which all of the pore spaces of the subsurface material are filled with water. The water that supplies springs and wells is ground water.

b. "Near surface water" means water in the zone immediately below the ground surface. It may include seepage from barnyards, disposal beds or leakage from sewers, drains, and similar sources of pollution.

c. "Surface water" means water that rests or flows on the surface of the ground.

34. "Well" means water well as defined in Minn. Stat. § 156A.02, subd. 1.

35. "Well seal" means a device or method used to protect a well casing or water system from the entrance of any external pollutant at the point of entrance into the casing of a pipe, electric conduit or water level measuring device.

36. "Well vent" means an outlet at the upper terminal of a well casing to allow equalization of air pressure in the well and escape of toxic or flammable gases when present.

37. "Yield" or "production" means the quantity of water per unit of time which may flow or be pumped from a well under specified conditions.

D. Policies.

1. The rules ~~and regulations,~~ shall apply to all water wells in the State of Minnesota except those specifically exempted by the Act. Those aspects covered are the construction of new wells, the repair and maintenance of wells where specified, ~~and~~ the proper abandonment of wells, and the proper isolation of possible sources of contamination from existing wells to protect the quality of ground water aquifers for providing safe drinking water supplies.

2. Public water supply. In accordance with 7 MCAR § 1.136, no system of water supply, where such system is for public use, shall be installed by any public agency or by any person or corporation, nor shall any such existing system be materially altered or extended, until complete plans and specifications for the installation, alteration, or extension, together with such information as the Commissioner may require shall have been submitted in duplicate and approved by the Director insofar as any features thereof affect or tend to affect the public health. No construction shall take place except in accordance with the approved plans. The plans for the well shall conform as specified by this well code. No municipal well may be drilled without approval of the site by the Director.

3. Modification by the Commissioner.

a. When the strict applicability of any provision of these rules ~~regulations~~ presents practical difficulties or unusual hardships, the Commissioner, in a specific instance, may modify the application of such provisions consistent with the general purpose of these ~~regulations~~ rules and the Act and upon such conditions as are necessary, in the opinion of the Commissioner, to protect the ground water of the State and the health, safety, and general well-being of persons using or potential users of the ground water supply.

b. Any request for modification shall be submitted to the administrative authority in writing and shall be signed by both the owner and the licensee. ~~Request for modification of the isolation distance from existing wells shall be submitted and signed by the owner.~~ In addition any ~~experts or~~ persons involved in providing documentary evidence in support of the request shall sign the request submitted by the owner. Such request shall specify in detail the nature of the modification being sought, ~~and~~ the reasons therefor, and the special precautions to be taken to avoid contamination of the well. The request shall also include: the proposed well depth, casing type and depth, method of construction and grouting, geological conditions likely to be encountered, and location of the well and of possible sources of contamination. Whether or not the requests are granted, the Commissioner shall state in detail the reasons for the decision.

c. The owner of a water well is bound by all the provisions of 7 MCAR §§ 1.210-1.230 which relate to location, construction, maintenance and abandonment of wells.

7 MCAR § 1.211 Licensing.

A. Qualifications.

1. All applicants shall meet the following requirements:

a. A minimum of three (3) years' experience in water well drilling.

b. Honesty, integrity, and an ability to perform the work of a water well drilling contractor.

c. Submission to the Commissioner of properly completed applications.

2. All applicants must successfully complete the examination provided for in the Act and in these rules.

B. Applications and fees.

1. All applicants shall submit two (2) applications. The first one shall be an application for examination. If the applicant qualifies, then he shall submit an application for licensure.

2. Application for examination.

a. An application for examination shall be submitted to the Commissioner on forms provided by him. The application shall be accompanied by the filing fee of $50.00. The fee shall be paid using only a money order, bank draft, or certified check made payable to the Minnesota State Treasurer.

b. The Commissioner shall not act upon the application until he has received reference letters from individuals who are familiar with the applicant's work experience, honesty, integrity, and ability to perform the work of a water well drilling contractor.

c. The filing fee for an application for examination shall not be refunded for any reason except when an applicant is not found to be qualified to take the written examination.

3. Application for licensure.

a. Upon satisfactory completion of the examination, the applicant must apply for a license within one year of the date on which he is notified of passing the exam, upon forms provided by the Commissioner.

b. The application shall be accompanied by a license fee of $50.00. The fee shall be paid using only a money order, bank draft, or certified check made payable to the Minnesota State Treasurer. This fee shall not be refunded for any reason.

4. If an applicant passes the examination or qualifies for licensure but the Commissioner does not receive his application for licensure within one year from the date of the letter from the Commissioner notifying him of his eligibility for licensure, then no license may be issued. Such an applicant, in order to become licensed at some later, date, shall requalify by submitting a new application for examination and the prescribed fee.

5. An individual may apply for examination as many times as he desires. Each application must be accompanied by the filing fee as prescribed by the Act.

C. Council evaluation of applicants.

1. The Council shall evaluate each applicant and forward its recommendations to the Commissioner.

2. The Commissioner or Council may conduct oral interviews and require sworn affidavits and other supporting evidence to determine qualifications of the applicant.

D. Examination.

1. No applicant shall be permitted to take the examination unless he has submitted an application for examination, the accompanying filing fee, and been determined to be qualified by the Council.

2. The applicant shall take an examination which may be any combination of written, oral, or practical work as determined by the Commissioner with the advice of the Council. Satisfactory completion of the examination is a mandatory prerequisite for licensure.

3. An applicant which is a partnership, corporation, or other business association, shall designate one partner, officer, or other responsible fulltime employee who shall be its representative to take the examination on its behalf. Upon licensure of the applicant, the representative shall be responsible for the supervision of all operations required of water well contractors by the Act and the rules ~~and regulations~~ adopted thereunder.

E. Denial of application. An application for examination or license may be denied for any of the following reasons:

1. Failure of the applicant to complete the application.

2. Failure of the applicant to submit the application with the prescribed fee.

3. Failure of the applicant to meet the experience, reference, examination, and other qualifications required by the Act and these rules ~~and regulations~~.

4. Other sufficient causes as determined after notice and hearing in accordance with APA.

F. License and renewal.

1. No person shall drill, construct, or repair a water well within this State unless in possession of a valid license to do so issued by the Commissioner; provided, however, that persons installing or repairing pumps on a well shall not be licensed as water well contractors provided their work does not involve modifications to the well casing, screen, depth, or diameter below the upper termination of the well casing.

2. The initial and renewal license shall not be transferable and expires on January 31 of the year after that for which it was issued. The initial license shall contain the name of the licensee; the licensee's representative, if applicable; the date of issue; and the license number.

3. Each licensee shall submit an application for license renewal on forms provided by the Commissioner no later than January 31 of the year for which application is made. The license renewal application shall be accompanied

by a fee of $50. A penalty fee of $10 shall also be paid if the renewal is submitted after the January 31 deadline. Upon receipt of the application answered in a manner acceptable to the Commissioner, a licensee shall be sent a renewal license. The renewal license shall consist of a card in duplicate and contain the name of the licensee; the licensee's representative, if applicable; expiration date; and license number. One card shall be kept posted with the original license. The other shall be carried by the licensee or his representative.

4. Any licensee who does not renew his license within one year may have his license renewed only upon the recommendation of the Council and only after showing sufficient cause for not renewing. Until such showing is made and the renewal license issued, the licensee shall not work as a water well contractor.

5. A person who acts as a representative may not be in the employ of any water well contractor other than the one he represents.

6. In the case of those applicants who are subject to 7 MCAR § 1.211 D.3. the licensee shall be the partnership, corporation, or other business association who that individual represents and not the representative.

a. When the representative leaves the licensee or is otherwise incapable of performing his responsibilities, the licensee shall inform the Commissioner within five (5) days of such fact and give the name of a qualified individual acceptable to the Commissioner, who shall be responsible for the acts of the licensee during the interim period while a new representative is being qualified. Although the licensee shall retain the same numbered license upon the licensing of the new representative, all applications, examinations, fees, and other requirements must be satisfied in order to qualify the new representative who must qualify within ninety (90) days. If he does not do so, the water well contractor shall be without a license and must cease operations.

b. If an individual has his own license and desires to act as a representative, or if a representative desires to obtain a license in his own name, the business association or the individual, as the case may be, need only submit an application for licensure and fee. The examination need not be retaken.

G. Suspension or revocation of license; reinstatement.

1. Suspension or revocation.

a. The Commissioner may suspend or revoke the license of a water well contractor upon finding that the licensee has violated the provisions of the Act or the rules ~~and regulations~~ adopted thereunder. The Commissioner may initiate such proceedings upon his own motion or upon recommendation of the Council.

b. The Commissioner or Council may cause an investigation to be made in any case in order to determine whether there has been a violation of the Act or of these rules ~~and regulations,~~ and, in so doing, may request the licensee to appear before them to determine the merits of the situation in question. In each case the Council shall made a recommendation to the Commissioner as to whether proceedings under the Act and the APA would be appropriate.

c. Any disciplinary action taken under this section shall comply with the provisions of the APA.

d. A license may be suspended until certain conditions are fulfilled and/or for a specified period of time as determined to be most appropriate by the Commissioner. The suspended or revoked license along with the current renewal certificates shall be returned to the Commissioner by the licensee.

e. When the license of a water well contractor who is subject to the provisions of 7 MCAR § 1.211 D.3. is revoked or suspended, the disciplinary action shall apply to both the licensee and its representative.

2. Reinstatement.

a. A revoked license may not be reinstated. The licensee who has had his license revoked may be relicensed by filing the usual applications and fees, and by taking the examination. The Commissioner shall require an investigation or hearing to determine whether the person should be issued a new license; provided, however, that in no case shall a new license be issued prior to one (1) year after the revocation has taken effect.

b. A licensee suspended for a specified period of time shall be automatically reinstated at the end of that time. Nothing herein shall be interpreted to prevent the making of such reinstatement conditional upon terms established by the Commissioner in his Order of Suspension.

c. A licensee suspended for an indefinite period of time may be reinstated at the Commissioner's own motion after due investigation to determine that the conditions upon which the suspension was based have been corrected or upon the Commissioner receiving reasonable assurance to his satisfaction that such conditions will not reoccur.

d. The person whose license has been revoked or indefinitely suspended may petition the Commissioner for a hearing for reinstatement of his license. Such hearing shall be granted only upon a showing by the petitioner that reasonable grounds exist for such hearing.

H. Placement of decals and license number.

1. A licensee shall place in a conspicuous location on both sides of each well drilling machine his license number in figures not less than three (3) inches high and one and a half (1½) inches wide. The number shall be in a contrasting color to the background.

2. Decals designating the year for which the license was issued or renewed and the words, "MINNESOTA LICENSED WATER WELL CONTRACTOR," shall be affixed directly adjacent to and below the license number on each well drilling machine. Water well contractors using a rope spool or other devices for well installation shall attach their decal on a portable display to be shown at the well site.

The decals shall be issued by the Commissioner upon licensure and renewal.

I. Well drilling machine registration.

1. An initial or renewal license issued pursuant to Minn. Stat. ch. 156A and the Water Well Contractors Rules, 7 MCAR §§ 1.210-1.230, shall include the registration of one drilling machine. Each water well contractor shall pay an annual fee of $5 for the registration with the Commissioner of each additional drilling machine. Upon receipt of the required fee and information, a water well drilling machine registration card shall be issued for identification purposes for each drilling machine registered by the well drilling contractor. The card shall be carried on the water well drilling machine at all times where it may be inspected by the Director. The card expires on January 31 of the year after that for which it was issued.

2. The registration card and duplicate decals furnished for a water well drilling machine are not transferable. The card and decals shall be returned to the Director when a water well drilling machine is sold, traded, or otherwise disposed of. A registration card and two (2) new decals for a drilling machine so transferred will be provided upon receipt of the water well drilling machine registration fee, the old card, the two (2) old decals and application for the new drilling machine.

7 MCAR § 1.217. Location of wells.

A. General considerations. A well shall be located consistent with the general layout and surrounding area giving due consideration of the size of the lot, contour of the land, slope of the water table, rock formation, porosity and absorbency of the soil, local ground water conditions, and other factors necessary to implement the basic policies that follow.

B. A well shall be:

1. Located on a site which has good surface drainage, at a higher elevation than, and at a sufficient distance from, cesspools, buried sewers, septic tanks, privies, barnyards and feedlots, or other possible sources of contamination so that the supply cannot be affected thereby, either underground or from the surface of the ground.

2. Located so that the well and its surrounding area can be kept in a sanitary condition.

3. Adequate in size, design and development for the intended use.

4. Constructed so as to maintain existing natural protection against pollution of water bearing formations and to exclude all known sources of pollution from entering the well.

5. Located at least 5 feet from a property line. A well constructed to produce water for a community public water supply[1] shall be located at least 50 feet from a property line. In locating any well, consideration shall be given to the sources of contamination from adjacent property.

C. Distance from pollution or contamination sources.

1. A well shall be at least:

a. One hundred fifty feet (150 ft.) from a preparation area or storage area of spray materials, commercial fertilizers or chemicals that may result in pollution of the soil or ground water.

b. One hundred feet (100 ft.) from a below grade manure storage area if conformance with Minnesota Pollution Control Regulation SW 52(2) (e).[2]

c. Seventy-five feet (75 ft.) from cesspools, leaching pits and dry wells.

d. Fifty feet (50 ft) from a buried sewer, septic tank, subsurface disposal field, grave, animal or poultry yard or building, privy, or other contaminants that may drain into the soil.

e. Twenty feet (20 ft) from a buried sewer constructed of cast iron pipe or plastic pipe (ASTM 2665 for polyvinyl chloride pipe or ASTM 2661 for acrylonitrile-butadiene-styrene pipe, as prescribed in the Minnesota Plumbing Code, 7 MCAR § 1.123 C.3.) with tested watertight joints, ~~or~~ a pit or unfilled space below ground surface, a sump[3] or a petroleum storage tank except that a well may be drilled closer than 20 feet to an approved basement, but no closer than as provided in 7 MCAR § 1.217 D.1. A community public water supply well shall be isolated at least 50 feet from any source of contamination.

f. Wells with casings less than 50 feet in depth and not encountering at least 10 feet of impervious material shall be located at least 150 feet from cesspools, leaching pits, or dry wells and at least 100 feet from a subsurface disposal field, manure storage pile or similar source of contamination.[2,4]

2. The safe distance that a well should be located from a waste landfill or waste stabilization pond (lagoon) cannot be assigned a fixed number because of the varieties of hydrologic and geologic parameters associated with the undetermined types and amounts of materials that may be carried by ground water from leachates discharged from the waste landfill or

[1]Community public water supply as prescribed in 7 MCAR § 1.145 A.12. means a system providing piped water for human consumption, which serves 15 service connections or living units or regularly serves at least 25 persons residing in the area for more than six months of the year.

[2]A below grade manure storage area may present a special hazard to ground water quality which may require a greater isolation distance than provided for in this rule depending upon hydrologic and geologic conditions.

[3]Sump means a water tight tank which receives sewage or liquid waste and which is located below the normal grade of the gravity system and must be emptied by mechanical means.

[4]For example, a manure storage pile would be considered as a potential source of contamination to the well; however, the presence of animals in open pasture in an area would not necessarily concentrate contaminants to the degree that would cause contamination to enter the ground water.

KEY: RULES SECTION — Underlining indicates additions to proposed rule language. ~~Strike outs~~ indicate deletions from proposed rule language. **PROPOSED RULES SECTION** — Underlining indicates additions to existing rule language. ~~Strike outs~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated "all new material."

waste stabilization ponds (lagoons). It is recommended that wells not be located in an area between the landfill or waste stabilization ponds (lagoons) sites and the point of ground water discharge to a surface water source.

3. Any well that may intercept leachates from a waste landfill or waste stabilization pond (lagoon) by water withdrawal from the well shall not be used for potable water.

4. Wells installed for ground water quality monitoring purposes are exempt from provisions related to safe depths and isolation distances from sources of contamination; however, their construction shall otherwise be in accordance with Minn. Stat. ch. 156A and rules adopted thereunder. All observation wells shall be protected from damage.

a. Temporary observation wells (as defined in 7 MCAR § 1.218 D.1.) shall be protected with a 6 foot high steel post and flag marker or sign.

b. Permanent observation wells (as defined in 7 MCAR § 1.218 D.2.) shall be protected with 4 steel posts as prescribed in 7 MCAR § 1.224 F.4.b.

5. The administrative authority may modify the isolation distances in this rule for individual well installations. The request for modifications shall be made according to the provisions of 7 MCAR § 1.210 D.3. ~~in writing and signed by the licensee and the owner and shall state the reasons for the request.~~ A request for modification of the isolation distance from existing wells shall be submitted and signed by the owner. In addition any experts or persons involved in providing documentary evidence in support of the request shall sign the request submitted by the owner. The request shall also include: the ~~proposed~~ well depth, geological formations ~~likely to be~~ encountered, casing type and depth, method of construction and grouting, and location of the well on the property in relation to possible sources of contamination.

D. Wells adjacent to buildings, gas lines or overhead electric power lines.

1. A well shall be located:

a. At least 3 feet horizontally from a building or any projection thereof, except for a pumphouse, unless modified in writing by the administrative authority.

b. Accessible for cleaning, treatment, repair, test inspection, and other attention as may be necessary.

2. No well shall be located within the footing of any building or room beneath the floor under which there are buried sewers.

3. A well shall not be located within fifteen feet (15 ft.) of a gas line or overhead electric distribution line or twenty-five feet (25 ft.) from an electric transmission line which is in excess of 50 kV except for the underground electrical service line to the well. These distances should be observed when locating a gas line or overhead electric line in the vicinity of an existing well or known proposed well. Where there is a question of the voltage in an electrical line the 25 foot distance should be observed or where less distance is required the utility company should be consulted for their recommendation for safe distances.

E. Areas subject to flooding.

1. A well shall not be located in areas subject to flooding unless the casing extends at least 2 feet above the level of the highest known flood of record or otherwise protected as prescribed in writing by the administrative authority.

2. The ground surface immediately adjacent to the well casing shall be graded so that surface water is diverted away from the casing.

3. The well shall be located at least 50 feet horizontally from the normal high water mark of a stream, river or lake and at a higher established ground surface elevation than the soil absorption system, septic tank, or other source of contamination.

4. For a community public water supply:

a. The surface of the ground at the well site shall be at least two feet above the highest known water level of any lake, pond, river, stream or any other body of surface water, the waters of which at the highest level would approach to within 50 feet measured horizontally of the well.

b. The earth surfaces shall be sloped to drain away from the well and be so graded as to prevent the accumulation and retention of surface water within 50 feet of the well.

c. Filling shall be protected from erosion by rip-rap or other suitable means.

5. Radial water collector. Projection of collectors shall be in areas and at depths approved by the Director. The exact location of all caisson construction joints and porthole assemblies shall be indicated. The caisson wall shall be substantially reinforced. Procedures shall be employed which will assure minimum vertical rise of the collectors. The top of the caisson shall be covered with a watertight floor and pump openings shall be curbed. Pump discharge piping shall not be placed through the caisson walls. There shall be no construction joint within 10 feet of the original ground surface.

7 MCAR § 1.218 General protection of ground water quality and resources.

A. Re-use of water, disposal, recharge or gas storage wells.

1. A well for the storage of gas or liquid under pressure may not be drilled without first having secured a permit therefore from the Commissioner of Natural Resources in accordance with Minn. Stat. §§ 84.57-58.

2. Water used for cooling parts of engines, air compressors, or other equipment or water used for air conditioning, shall not be returned to any part of the potable water system.

3. A well shall not be used for disposal of surface water, near surface water, or ground water or any other liquid gas or chemical.

B. Maintenance and repair of wells.

1. Every well shall be maintained in a condition whereby it will conserve and protect the ground water resources, and whereby it will not be a source or channel of contamination or pollution to the water supply of that well or any aquifer.

2. All materials used in maintenance, replacement or repair of any well shall meet the requirement of these ~~regulations~~ rules for new installation.

3. Broken, punctured, or otherwise defective or unservicable casing, screens, fixtures, seals, or any part of the well head shall be repaired or replaced. The well shall be abandoned in accordance with the requirements of these ~~regulations~~ rules if such repair or replacement is not performed.

4. Repairs to wells completed with the well head terminating below ground (buried seal) where practicable, should include extending the well casing, ~~(~~pitless adapter~~)~~, or pitless unit above the land surface. Extension of the casing above grade shall be accomplished in accordance with rules ~~and standards~~ for new wells.

5. Before acid treating a well, 7 MCAR § 1.218 B.4. shall be complied with to prevent a hazardous condition caused by release of H_2S (hydrogen sulfide) or other toxic gases in a pit or confined space. All confined spaces shall be blown out with fresh air before entry and a supply of fresh air provided during occupancy. Pits or chambers should not be entered without a lifeline and adequate lifting power on the surface to quickly haul up a worker. Where there is any question whether the air supply procedure has provided a safe atmosphere, a self-contained breathing apparatus shall be worn (ordinarily canister-type gas masks do not protect against atmospheres low in oxygen).

C. Abandonment of wells. Any water well which is to be abandoned must be abandoned in accordance with these rules. The owner of a well which is no longer being used will be ordered to sample the well and to disinfect or otherwise pump or remove the contamination before the well is plugged. If a well provides a potential or actual source of contamination for the aquifer, the Commissioner may order that the well be permanently plugged and abandoned.

1. Temporary.

a. Prior to placement into service or when temporarily removed from service, the well shall be sealed with a water-tight steel cap. A well removed from service and not permanently abandoned may be temporarily abandoned if approved in writing by the Commissioner. The licensee and the owner shall submit a request for temporary abandonment on forms provided by the Department.

b. The well shall be maintained whereby it is not a source or channel of contamination when not in service.

c. Until a well is permanently abandoned by sealing procedures, all provisions for protection of the water against contamination and pollution and for maintaining satisfactory sanitary conditions around the well shall be carried out to the same extent as though the well were in routine use.

2. Permanent.

a. General. A well that is to be permanently abandoned shall be disconnected from the system and the hole filled to prevent contaminating materials from entering the water-bearing ground formations. Concrete or cement grout shall be used for sealing material; however, if the well is so large that the use of these materials is not practical, the filling materials should be selected so as to restore natural conditions as nearly as possible. Neat cement grout or concrete as defined in 7 MCAR § 1.220 C. (grouting) and 7 MCAR § 1.210 C.13. are satisfactory for filling parts of wells in rock formations. Sand and heavy drilling fluid may be used in sand and gravel sections of wells.

b. All materials, debris and obstructions that may interfere with sealing operations shall be removed from the well. Liner pipe shall be removed or perforated when necessary to assure placement of an effective seal. The administrative authority will be consulted for instruction in case of abandonment of a contaminated well or where there is a question of proper procedure.

c. All casing and screen may be salvaged except casing that has been cemented in place. The well shall be filled with appropriate sealing materials as described in 7 MCAR § 1.218 C.2. prior to removal of the casing.

d. The top of the hold shall be filled with 10 feet of cement or concrete grout to within 2 feet of the land surface. Casing remaining in the hole shall be cut off at least 2 feet below land surface. The remaining top 2 feet of hole shall be filled with native top soil.

e. An abandoned well shall be filled and sealed by one of the following methods in accordance with the materials penetrated, in such a manner as to prevent it from acting as a channel for pollution. A report of the method of sealing shall be filed with the Commissioner on water well record forms provided:

(1) A well in unconsolidated deposits shall be filled with clean sand and puddled clay, neat cement grout or concrete grout to provide a permeability no greater than the natural condition.

(2) The section of a well in a cavernous or creviced rock (such as cavernous limestone or basalt lava rock, creviced granite, etc.) shall be filled with concrete or neat cement grout or alternate layers of concrete or neat cement grout, gravel or stone aggregate. The filling shall be com-

pleted at the top by a layer of neat cement grout or concrete grout extending at least ten feet (10 ft.) into the above overlying formation and finished as provided in 7 MCAR § 1.218 C.2.

(3) When concrete, cement grout, puddled clay or heavy drilling fluid is used for sealing an abandoned well, it shall be inserted in the well through a grout pipe from the bottom of the well upward to the surface under pressure and in one continuous operation.

(4) Test wells shall be sealed to prevent the well from being a channel for the vertical movement of water and a source of contamination to the ground water supply in accordance with well abandonment provisions of 7 MCAR § 1.218 C.

(5) The flow in a flowing well shall be confined, if possible,[3§] and the well filled in accordance with well abandonment provisions of 7 MCAR § 1.218 C.

f. The owner shall be responsible for the permanent sealing of an abandoned well except:

(1) As mutually agreed upon in a written contract between the owner and licensee and in accordance with these rules ~~and regulations~~ to protect the ground water aquifer.

(2) When the licensee improperly locates, constructs, or completes the well or fails to meet the conditions of his contract; in which case the licensee shall be responsible for the sealing of the well.

g. A licensee shall permanently abandon any well that he removes from service in accordance with 7 MCAR § 1.218 C. and shall report such abandonment to the Commissioner. A licensee shall report to the Commissioner any unsealed abandoned water wells.

D. Observation wells.

1. Observation wells installed for a temporary (not to exceed a period of six (6) months) purpose of obtaining hydrologic or other data shall be constructed by such methods and of such materials that they are not a source or channel of pollution or contamination to any ground water supply or aquifer. All observation wells shall be abandoned in accordance with procedure described in rule 7 MCAR § 1.218 C.

2. Permanent observation wells (exceeding a period of six (6) months) constructed for the purpose of obtaining hydrologic or other data shall meet the standards of construction for water supply wells except when prior permission has been obtained in writing from the Commissioner exempting the well from meeting specified standards established by these ~~regulations~~ rules.

E. Test holes and borings. Test holes shall be permanently abandoned and sealed by the well contractor after the drilling, logging and testing have been completed unless:

1. The owner or his agent has submitted a request to the Director and obtained his written permission to extend the time limit, or

2. The well is being completed as a water supply or other approved type well.

F. Dewatering and depressurizing wells.

1. Dewatering and depressurizing wells shall be constructed in a manner and with such materials to prevent the contamination of the ground water system. Discharges from the dewatering system shall not be cross connected to a potable water supply.

2. Temporary water supply. There may be incidents during construction where nearby residences with private water supplies will lose their source of supply during dewatering operations. If such a situation occurs, the licensee shall cooperate with the homeowner as may be required to provide a temporary supply of water during construction operations, including, but not necessarily limited to, supplying bottled water for drinking and cooking purposes and potable bulk water for other uses.

3. The Commissioner shall be notified prior to commencement of a ground water dewatering operation by the licensee. The licensee shall report the approximate area to be dewatered, the maximum depth to be dewatered, the number of wells to be affected, and the measures that will be taken to provide potable water to persons adversely affected by the dewatering operation. This may be reported by phone. The licensee shall retain the name of the Commissioner's staff member taking the information and shall report this information in writing to the Commissioner within three days of commencement of the ground water dewatering operation.

4. The licensee shall comply with any orders issued by the Commissioner which may include but not be limited to the collection of water samples from wells in the dewatered area for analysis to determine any health hazards prior to the Commissioner relieving the licensee of responsibility for furnishing a safe water supply to well owners in the area affected by the dewatering operation. If the licensee has been released of his responsibility but thereafter difficulties develop in the water supply of well owners in the area affected by the dewatering operation as a result of such operation, the licensee may again be required to comply with 7 MCAR § 1.218 F.2.

G. Elevator shafts. Wells constructed or holes drilled for the installation of elevator shafts or hydraulic cylinders shall be cased, sealed, and maintained in a manner to prevent the vertical movement of water as a source of contamination to the ground water or any aquifer and as approved by the Commissioner.

H. All other wells. All wells except those specifically exempted by the Act shall be constructed and maintained in accordance with standards for water supply wells except

[3§] Proper judgment shall be exercised in the feasibility and practicability of sealing flowing wells. In some cases the confining formation may have been so badly disturbed that sealing may only cause the flow to discharge in a less appropriate location. In other situations, the flow may have eroded so much material that the landscape has taken on the appearance of a natural spring. The sealing in this case may be impracticable, if not impossible.

when prior exemption has been obtained from the Commissioner.

7 MCAR § 1.219 Other water sources, cross connections and storage reservoirs.

A. Storage reservoirs. If a storage reservoir, excluding a pressure tank, is used, plans shall be submitted to the administrative authority for approval. The plans shall meet the standards specified in the Manual of Water Supply Sanitation, Section VII, paragraph 715, published in 1969 by the Department.

B. Other water sources. In cases where a potable water supply cannot be obtained by well drilling, permission may be granted by the administrative authority to use springs, infiltration tile lines, or other similar sources as a water supply or to install water treatment facilities. Plans and specifications for such facilities, together with operating procedures, shall be approved by the administrative authority. The plans shall meet the standards of the Manual of Water Supply Sanitation, Section VI, published in 1962 by the Department.

C. Cross connections. Cross connections between water wells and other systems or equipment containing water or other substances of unknown or questionable safety, including pesticides and fertilizers, are prohibited, except where equipped with a suitable protective device such as a break tank or backflow preventer which is approved by the Commissioner and which the owner agrees to install, test and maintain to assure proper operation.

7 MCAR § 1.220 Standards for construction of wells.

A. Casing for permanent wells.

1. A permanent well casing used for the protective or outside casing shall be of at least standard weight (schedule 40) steel or iron pipe through 8 inches inside diameter. Larger diameter casing shall have minimum weights and thicknesses as specified in Table 1. Dimensions and weights of schedule 40 pipe are given in Standard B36.10-1959 of the American Standards Association, 29 West 39th Street, New York, New York and Standards A53-69a or A120-69 of the American Society for Testing Materials, 1916 Race Street, Philadelphia, Pennsylvania 19103. Casing for permanent wells shall be of ferrous material or, where permitted by statute, plastic material. For ferrous pipe, the specifications and installation procedures are prescribed below. For plastic pipe, the specifications and installation procedures are prescribed in 7 MCAR § 1.224.

2. A protective well casing shall be watertight throughout its length, with threaded or welded joints or other types of joints given written approval by the Director. Recessed or reamed and drifted couplings shall be used on threaded casing, or, as an alternate, other couplings can be used but the design, taper and type of thread of the coupling shall match that of the pipe. No thread shall be exposed on the pipe when the pipe is joined to the coupling. Other casing design or materials shall be approved only by official written order of the Commissioner.

3. Pipe used as the protective casing in the permanent construction of a well shall be new pipe produced to recognized standards of the American Society for Testing Materials, No. 5L (1970) of the Amercian Petroleum Institute, 1271 Avenue of the Americas, New York, New York, or NM C201-66 and C202-64 of the American Water Works Association, 2 Park Avenue, New York, New York, or other grade weldable new pipe having a quality equal to or greater than those heretofore specified.

4. New pipe, when salvaged within 30 days of the drilling of a water well test hole or dry hole only, may be used as new pipe if still in new condition.

5. Pipe shall be marked with the specification designation or marked "Meets Minnesota Well Construction Code Standards." Such markings shall include wall thickness, weight per foot and identification of supplier. The Commissioner may require that such pipe be submitted to an independent testing laboratory for evaluation and verification that the pipe will equal or exceed minimum standards. Failure of the pipe supplier to submit the pipe for evaluation and verification or failure of the pipe to meet minimum standards specified in 7 MCAR § 1.220 A.1. and 3. shall be sufficient cause for automatic rejection of such pipe for use in well construction in Minnesota.

6. Pipe intended for water well use that is sold within this State, regardless of specification designation, is subject to random examination by the administrative authority who may require any lot of pipe or part thereof containing defective lengths to be rejected. Defective lengths or lots shall include, but not be limited to:

a. Pipe with girth welded joints,

b. Pipe with welded patches, and

c. Lots having more than 5% of the pipe with lengths less than 5 feet.

7. Temporary, inner, and protective casing; liner.

a. Temporary casing may be standard weight pipe or lighter pipe, but lightweight material shall be of such minimum thickness as is required to withstand the structural load imposed by conditions both inside and outside the well.

b. In no case shall the casing have a wall thickness of less than specified in Table 1. An inner casing shall be surrounded by at least 2 nominal inches of neat cement grout when welded joints are used. Table 2 lists inner and outer pipe size combinations which would be appropriate to fulfill the

Table 1
Casing Pipe Weight and Dimensions

Size in Inches	Wgt. Lbs. Per Ft. Plain End	Thrds. & Cplgs.*	Thrds. R&D Cplgs.	Thickness in Inches	Diameter — Inches External	Internal	Thrds. per Inch	Couplings Minimum External Diameter Inches	Minimum Length Inches
1	1.68	1.68	1.70	.133	1.315	1.049	11½	1.576	2-5/8
1¼	2.27	2.28	2.30	.140	1.660	1.380	11½	1.900	2-3/4
1½	2.72	2.73	2.75	.145	1.900	1.610	11½	2.200	2-3/4
2	3.65	3.68	3.75	.154	2.375	2.067	11½	2.750	2-7/8
2½	5.79	5.82	5.90	.203	2.875	2.469	8	3.250	3-15/16
3	7.58	7.62	7.70	.216	3.500	3.068	8	4.000	4-1/16
3½	9.11	9.20	9.25	.226	4.000	3.548	8	4.625	4-3/16
4	10.79	10.89	11.00	.237	4.500	4.026	8	5.200	4-5/16
5	14.62	14.81	15.00	.258	5.563	5.047	8	6.296	4-1/2
6	18.97	19.18	19.45	.280	6.625	6.065	8	7.390	4-11/16
8	28.55	29.35		.322	8.625	7.981	8	9.625	5-1/16
10	40.48	41.85		.365	10.750	10.020	8	11.750	5-9/16
12	49.56	51.15		.375	12.750	12.000	8	14.000	5-15/16
14	54.57	57.00		.375	14.000	13.250	8	15.000	6-3/8
16	62.58	65.30		.375	16.000	15.250	8	17.000	6-3/4
18	70.59	73.00		.375	18.000	17.250	8	19.000	7-1/8
20	78.60	81.00		.375	20.000	19.250	8	21.000	7-5/8
22	86.61			.375	22.000	21.250			
24	94.62			.375	24.000	23.376			
26	102.63			.375	26.000	25.250			
30	118.65			.375	30.000	29.250			
32	126.66			.375	32.000	31.250			
34	134.67			.375	34.000	33.250			
36	142.68			.375	36.000	35.250			

*Nominal weight based on length of 20 feet including coupling.

requirements of this rule. If couplings are used the annular space shall be at least 4 inches in diameter larger than the outer diameter of the coupling. The annular space between the casing and open hole shall be grouted with neat cement, ~~or~~ concrete grout, or as provided in 7 MCAR § 1.220 C, D., E. or F.

Table 2

~~Permitted~~ Inner and Outer Casing Combinations Providing the Minimum Annular Space When Welded Joints Are Used

Inner Casing in nominal inches	Outer Casing in nominal inches
2	6
4	8
5	10
6	12
8	14
10	16
12	18
14	20
16	22
18	24
20	26
22	30
24	30
26	32
30	36

c. An inner casing shall be grouted for its entire length with the grout material being added from the bottom upward in one continuous operation or as provided in 7 MCAR § 1.220 F.

d. Casings to be grouted shall be provided with sufficient centering guides, welded to the casing, to permit unobstructed flow and deposition of the grout.

8. A well drilled for irrigation purposes in shallow continuous glacial outwash material penetrating non-artesian water may be constructed of pipe as specified in Table ~~2~~3. The annular space shall be closed by washing the fine grained caving material around the casing.

Table ~~2.~~3. Gauges for Steel or Galvanized Steel Casing Irrigation Wells in Shallow Continuous Glacial Outwash Material Penetrating Non-artesian Water.

Diameter of Plain and Perforated Casing (inches)				Diameter of Corrugated Metal Pipe (inches)		
12	14	16	18	12	15	18
. . . Gauge . . .				. . . Gauge . . .		
12	10	10	10	12	12	12

Well casing in Table ~~2.~~3. shall be new pipe, however, salvaged pipe may be used if the condition of the salvaged pipe is yet of new pipe quality.

9. Under no conditions shall the casing inside diameter be less than 2 inches except for a driven well point which shall be equipped with a casing pipe of at least 1¼ inches inside diameter. The well shall also be of sufficient diameter to receive a pump or pumping apparatus of sufficient size to discharge the design capacity including anticipated decline in water levels.

10. Minimum protective depths of wells.

a. All wells shall be watertight to such depth as may be necessary to exclude pollution. A well shall be constructed so as to seal off formations that are, or may be, contaminated or undesireable ~~or contaminated with bacteria of sewage origin.~~

Requirements will be fulfilled to the minimum extent when the protective casing has been installed in conformity with the applicable construction set forth in 7 MCAR § 1.220. Where it is not feasible to follow the standards contained in this section, the licensee shall obtain approval of the administrative authority as to the design of the well before proceeding. The acceptability of the formation for well development shall be based on the satisfactory results of analysis of the water. Any water-bearing formation yielding water which is contaminated, as evidenced by the presence of chemicals or bacteria of sewage origin, shall be regarded as unsatisfactory for use as a potable supply unless adequate treatment is provided. The Minnesota Department of Health shall be consulted for measures that may be feasible to adequately treat the water to provide a potable supply.

b. Any potable water supply well constructed entirely in glacial outwash or alluvium earth formations in which the casing does not extend to a depth of 50 feet below established ground level or through at least 10 feet of impervious soil formation shall be located in accordance with 7 MCAR § 1.217 C.1.f.

11. A well casing or extension thereof shall extend vertically at least 12 inches above ground surface or above the floor of an approved basement offset, pump room or well room. However, in an above grade installation the casing shall extend at least 6 inches above the floor or slab.

12. Well casing offsets are prohibited.

B. Upper casing. A well casing used for a potable water supply shall not be used as a suction line unless protected by a standard weight outer casing to a depth of at least 10 feet. The top of the both casings shall be finished in accordance with 7 MCAR § 1.222.

C. Grouting.

1. A well having an open annular space around the casing, or between the surface casing and protective casing, or between an inner casing surrounded by an outer casing, shall be grouted from the lower termination of the casing to the ground surface or to the base of the pitless ~~adapter~~ unit. Grouting shall be commenced without delay upon completion of drilling of the well or any portion of a well which must be grouted. Grouting shall be performed by adding the mixture through the casing or a grout pipe from the bottom of the space to be grouted upward to the surface in one continuous operation. Concrete grout may be used in the dry portion of a hole. Neat cement grout or concrete grout shall be allowed to set a minimum of 12 hours when hi-early cement is used or a minimum of 48 hours when regular cement is used, before drilling operations are resumed. Heavy drilling mud or heavy bentonite water slurry may be used as grout in wells developed in glacial drift.

2. Concrete grout is a mixture of cement, sand and water, in the same proportion of 1 bag of Portland cement (94 pounds) (ASTM C150-69a) and an equal volume of dry sand to not more than 6 gallons of clean water. Where large volumes are required to fill annular openings, gravel not larger than ½ inch size may be added. Concrete grout shall not be used as grout below the water level in the well.

3. Neat cement grout is a mixture of 1 bag (94 pounds) of Portland cement (ASTM C150-69a) to not more than 6 gallons of clean water. Bentonite up to 2% by weight of cement to reduce shrinkage or other admixtures (ASTM C494-68) to reduce permeability and/or control time of set may be used.

4. Heavy drilling fluid when used as grout in a rotary drilled well shall contain a high percentage of clay or bentonite to minimize shrinkage of the slurry within the annular space. Heavy bentonite water slurry is a mixture of 10% by weight of bentonite added to clean water or approximately 5% bentonite added to drilling mud. Bentonite shall contain 85% of the mineral montmorillinite and shall meet American Petroleum Institute specification standard 13A (March 1966). Saline, acid or alkaline substances or other additives to cause a temporary increase in viscosity of the bentonite slurry are not permitted.

D. Rotary, bored or augered wells.

1. Rotary, bored or augered ~~type~~ wells shall ~~be constructed with a water-tight casing of 2" diameter or larger installed in an open hole having a diameter of at least 4" larger than the maximum outside diameter of the casing.~~ have the annular space around the casing ~~shall be~~ tightly sealed in accordance with the materials and procedures ~~described in~~ which are appropriate to the particular geological and hydrologic conditions at the well site, as prescribed in ~~described in~~ 7 MCAR § 1.220 C.,~~or 1.220~~ F., G., H. and O. ~~A rotary, bored, or augered well completed in a drift formation may be sealed by pumping the well to collapse the formation; however the top 20 feet below the land surface shall be sealed in accor-~~

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~~dance with 7 MCAR § 1.220 C. or § 1.220 F. Any annular space remaining unfilled shall be grouted with neat cement or concrete using a tremie pipe to pump the grout under pressure from the bottom up in one continuous operation.~~

2. Drilling mud additives shall be stored in clean containers and shall be free of material that may adversely affect the well, aquifer, or quality of the water to be pumped from the well.

E. Driven casing wells.

1. Where the upper drillhole is clay or similar material of 10 feet or more in thickness, the annular space between the drillhole and casing shall be kept filled with clay slurry or equivalent material when driving the protective casing. In lieu of this, a starting casing should be used and sealed with 20 feet of concrete grout. (When a pitless adapter or pitless unit is used, see 7 MCAR § 1.221 C.1.).

2. The bottom of the protective well casing shall be equipped with a drive shoe or otherwise protected from damage during construction of the well as dictated by drilling procedures and conditions of each particular well.

F. Unconsolidated glacial drift wells. A well drilled into unconsolidated glacial drift may be completed with a tight seal made around the protective casing if the annular space is closed by washing the fine-grained caving material around the casing prior to disinfection of the well. Wells shall be pumped promptly after setting the casing until clear, and native materials shall be washed immediately into the annular space. Any annular space remaining unfilled shall be grouted with neat cement or concrete using a tremie pipe to pump the grout under pressure from the bottom up in one continuous operation.

G. Rock wells.

1. Where rock is encountered, i.e., consolidated as opposed to unconsolidated geological material, at a depth greater than 25 feet from the surface the protective casing shall be equipped with a drive shoe which shall be driven firmly into stable rock to provide a tight joint that will prevent pollution or sand from entering the well.

2. Where rock is encountered within 25 feet of the surface, an oversized hole shall be drilled. Such hole shall be 4 inches larger than the nominal casing size when welded construction is used, and 4 inches larger in diameter than the coupling if threaded joints are used. The annular space shall be pressure grouted with neat cement or concrete grout as prescribed in 7 MCAR § 1.220 ~~D.~~C. to a depth sufficient to exclude water which is or may be contaminated.

3. In an area where a well can be developed only in fractured, jointed, but noncavernous rock, the casing may terminate in the formation if there is at least 25 feet of sand or clay material above the rock, there is no record of this rock containing contaminated or polluted water, and geologic conditions offer no natural direct surface or near surface water inlets into the rock aquifer. Where there is less overburden or deeper strata will not produce potable water, the administrative authority shall be consulted and its written approval obtained by the well owner for water treatment and well construction features necessary to provide a safe water supply.

H. Cavernous rock wells.

1. Geological formations which are creviced or cavernous (limestone or dolomite) ~~should~~ shall not be used as a potable source of ground water unless overlain by at least 50 feet of drift material and/or by a firm insoluble rock material (sandstone) extending for at least one mile horizontal distance from the well in all directions to render the movement of contaminated water in the formation to the well improbable. The casing ~~shall extend at least 10 feet below the pumping level.~~ shall be equipped with a drive shoe and seated into the top of the limestone or dolomite formation. ~~The casing shall extend at least feet below the pumping level. The well shall be cased and grouted at least 10 feet below the pumping level. The drill hole shall be at least 4 inches larger in diameter than the nominal casing size if welded construction is used, and 4 inches larger than the couplings if threaded joints are used. The annular space shall be filled with neat cement or concrete grout as provided in 7 MCAR § 1.220 C.~~

a. Where the pumping level is determined to be at least 10 feet above the top of the cavernous formation the well shall be cased at least 10 feet below the pumping level. Any unfilled annular space shall be sealed according to the procedure prescribed in either 7 MCAR § 1.220 C. or F.

b. Where the pumping level is determined to be less than 10 feet above the top of the limestone or dolomite formation the drill hole shall be at least 4 inches larger in diameter than the nominal casing size if welded construction is used, and 4 inches larger than the couplings if threaded joints are used. The annular space shall be filled with neat cement or concrete grout as prescribed in 7 MCAR § 1.220 C.

2. Wells underlying cavernous rock. Where an adequate and safe water supply is available in a geological formation overlain by one or more faulty rock formations, all faulty rock formations should be completely cased off. The casing should extend at least 15 feet into the safe aquifer if such exists, or at least 15 feet into a stable, insoluble, noncavernous or noncreviced geological formation beneath the lowest faulty rock formation and above the aquifer and at least 10 feet below the pumping level. The drill hole extending through the creviced rock formation and 15 feet into the firm rock formation or aquifer should be at least 4 nominal inches larger in diameter than the casing if welded construction is used, and 4 nominal inches larger in diameter than the couplings if threaded joints are used. The annular space shall be filled with cement grout as provided in 7 MCAR § 1.220 C.

3. Protective mantle over cavernous and noncavernous aquifer. Where any faulty rock formation which overlies a safe aquifer is itself overlain by a protective mantle of drift, or by a firm insoluble consolidated formation of sufficient depth and for a sufficient radius as described herein above (7 MCAR § 1.220 H.1.), the casing need not extend through the

protected faulty rock formation. The casing shall also extend 10 feet below the pumping level. The acceptability of water taken from a well so constructed will be dependent upon treatment of the water, if the need for treatment is indicated by analytical studies of the water.

4. A well shall not provide water entry from more than one aquifer.

I. Flowing artesian wells.

1. Flowing artesian wells should be constructed to prevent erosion of the aquifer or the overlying confining mantle.[4a]

2. Flow control from a flowing artesian well shall be provided, consisting of valved pipe connections, water-tight pump connections or a receiving tank set at an altitude corresponding to that of the artesian head. A direct connection between the discharge pipe and a receiving tank or a sewer or other source of pollution or contamination shall be prohibited.

J. Well screens. A well installed in unconsolidated sand and gravel aquifers shall ordinarily be fitted with a screen properly sized so the aquifer can be properly developed to produce sand-free water at the pumping rate of the permanent pump. Wells shall provide sand-free water to the extent that the sand will not interfere with the intended use and operation of the water supply system.

K. Capping. Temporary capping of a well until the pumping equipment is installed shall be such that no pollution or foreign objects can enter the well.

L. Yield test. Every well shall be test pumped to produce a minimum initial supply of 600 gallons of sand-free water per hour if geological conditions permit. A well in which a pump of a capacity of 20 gallons per minute or more is to be installed shall be tested for yield and drawdown with periodic water level measurements being made where possible, during the drawdown and subsequent recovery periods. The well shall be test pumped at rates greater than is expected from the well during its normal usage as follows: up to 400 gpm — 1.5 times; 400 to 600 gpm — 1.4 times; 600 to 800 gpm — 1.3 times; 800 to 1,000 gpm — 1.2 times; 1,000 gpm and over — 1.1 times. Shallow nonartesian wells used for irrigation purposes may be test pumped at a rate equivalent to the yield of the aquifer and for a period of at least 12 hours. Wells shall be test pumped for a minimum of one hour or more if more is required by the well owner or as prescribed by the consulting engineer or hydrologist.

M. Alignment. A well shall not vary from the vertical or alignment so as to interfere with installation and operation of the pump.

[4a]This provision will not be interpreted so as to preclude licensees from attempting to drill a well in a flowing artesian area, when it is likely that a water well can be safely installed if proper precautionary measures are followed.

N. Drilling water. Water used for drilling, development or rehabilitation purposes, other than from the well itself, shall be chlorinated clear water containing a free chlorine residual at the time of use and be conveyed in clean sanitary containers or water lines.

O. Dug or bored wells.

1. A dug or bored well constructed with materials other than those authorized in 7 MCAR § 1.220 A. may be constructed only in glacial drift formations and shall:

a. be cased with material of sufficient strength to withstand the pressures of the formation;

b. be installed in an oversized hole at least 8 6 inches in diameter larger than the casing; ~~C. have~~ with the annular space between the casing and the formation filled 4 3 inches thick with neat cement or concrete grout placed in one operation to a depth sufficient to exclude water which is or may be contaminated, or to a depth of 10 feet, whichever is greater, or

c. be installed with a watertight concrete curbing or casing at least four inches thick poured in one operation to a depth sufficient to exclude water which is or may be contaminated, or 10 feet, whichever is greater. The annular space between the casing and the formation shall be filled as provided in 7 MCAR § 1.220 D. or F;

d. be protected with a heavy pre-cast overlapping steel reinforced concrete cover or a heavy locked overlapping metal cover not less than 3/16 inch in thickness. The cover shall be tight fitting so as to exclude vermin, dust, or other contaminants from the well.

e. have pump openings and any below grade connection sealed with concrete or cement as prescribed in c. above.

2. Prior to constructing a dug or bored well, the licensee shall obtain from the owner an agreement to the following conditions:

a. the owner will maintain the isolation distances prescribed in 7 MCAR § 1.217 C.1.;

b. once per year, or as otherwise prescribed by the Minnesota Department of Health, the owner will have the water from the dug or bored well analyzed for nitrate and for bacteria. This agreement shall be documented on forms provided by the Minnesota Department of Health and shall be returned to the Department along with the water well record.

P. Well development. The well shall be developed to remove: 1. native silts and clays deposited on the aquifer face during the drilling, 2. drilling fluid and 3. the predetermined finer fraction of the gravel pack, all of which shall be done to insure that the maximum practical specific capacity will be obtained from the completed well.

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Q. Disposal of material. Drilling mud, cuttings and discharged water shall not be disposed in a manner so as to create damage to public or private property. During the test pumping discharged water shall be piped to a point of overland drainage.

7 MCAR § 1.221. Well casing seals and connections.

A. Water level measurement design. Provisions shall be made in the well seal with a minimum ½-inch diameter threaded plug for future measurements of static and pumping water levels. A minimum 1-inch diameter threaded plug is preferred where feasible.

B. Above-grade connections. An above-grade connection into the top or side of a well casing shall be at least 12 inches above the established ground surface or 2 feet above the regional flood level whichever is higher, and constructed so as to exclude dirt or other foreign matter by one or more of the following methods, as may be applicable:

1. Threaded connection.

2. Welded connection.

3. Rubber expansion sealer.

4. Bolted flanges with rubber gaskets.

5. Overlapping well cap.

6. Extension of the casing at least 1 inch into the base of a power pump mounted and sealed on a concrete pedestal and at least 12 inches above the established ground surface or the floor of an approved basement, pump room, or well room.

C. Below-grade connection.

1. A connection to a well casing made below ground, or less than 12 inches above the established ground surface, shall be protected by ~~threaded or welded joints or~~ a pitless adapter or pitless unit. The ~~threaded or welded joints or~~ pitless adapter or pitless unit shall be approved by the commissioner on the basis of design and materials. A below-ground connection shall not be submerged in water at the time of installation. The director will furnish a list of approved pitless adapters and pitless units that meet the requirements of these rules. Native materials shall be packed tightly around the casing and pitless adapter or pitless unit after installation.

2. A connection to a well casing located at least 12 inches above the floor of an approved basement offset is considered equal to an above-grade installation for residential use only. An approved basement offset shall be a room with a floor 12 inches above the floor of an approved basement, shall extend beyond the footings of the buildings. The well shall extend 3 feet beyond any roof projection. Any basement located in a regional flood zone shall not be considered an approved basement. Water from a well located within a basement offset of a farm home may be piped for use in other farm buildings.

D. Other methods. Any other method of connection to a well casing shall be specifically approved in writing by the Director before installation.

7 MCAR § 1.222. Pump installation.

A. Pump and well rooms. A room housing pumping equipment or the top of a well casing shall be constructed above the established ground surface permitting access to the pump and well for maintenance or repair, or may be located below-grade if the containing room is located in or attached to an approved basement.

B. Slabs, platform and floors. A well, except where an approved pitless adapter or pitless unit is used, shall be protected by a durable watertight concrete or equal slab, platform or floor, at least 4 inches thick, extending horizontally at least 1 foot in every direction from the well casing, and sloped to divert water away from the casing. A watertight seal, which may be asphalt or similar material to provide resiliency, shall be provided between the casing and the platform, pump room or approved basement floor or slab.

C. Pumps and pumping equipment.

1. A pump shall be constructed so that no unprotected openings into the interior of the pump or well casing exist.

2. A hand pump, hand pump head, stand or similar device shall have a closed spout, directed downward, and a pump rod that operates through a stuffing box.

3. A power driven pump shall be attached to the casing or approved suction or discharge line by a watertight connection, including flange connections, hose clamp type connections, or other flexible couplings, or shall have a base plate meeting the requirements of 7 MCAR § 1.221 A.

4. A pump shall be designed, installed and maintained so that priming is not required for ordinary use. Pumps installed for use only on a well water irrigation system are exempted but priming water shall be clear water free of contamination and carrying a chlorine residual. An irrigation well equipped with a centrifugal pump may be primed without chlorination when the pump is filled with water taken directly from the well.

D. Water suction lines.

1. A water suction line shall be constructed of copper, galvanized iron or steel, cast iron, or plastic pipe as approved by the Director, or other material given written approval by the Director. Aluminum pipe is acceptable for well water irrigation systems in addition to the above materials.

2. A water suction line extending outside the well casing shall not be used unless protected by one or more of the following methods:

a. Fully exposed in an approved basement offset, pump room or well room and at least 12 inches above the floor of an approved below-grade structure.

b. Fully exposed above grade.

c. Lying within an outer casing with the annular space filled with water from the system and maintained at system pressure.

3. An unprotected suction line may be installed below grade only for nonpotable irrigation wells located in agricultural fields and installed in shallow glacial outwash material penetrating nonartesian aquifers for manifold collection systems under negative pressures provided the area is sufficiently isolated from potable water wells.

E. Pump discharge lines. A buried discharge line between the well casing and the pressure tank in any installation, including a deepwell turbine or a submersible pump, shall not be under negative pressure at any time. If a check valve is installed in a buried water line between the well casing and the pressure tank, the water line between the well casing and the check valve shall meet the requirements for a suction line unless equipped with an air release valve. Pump discharge lines shall be materials as approved for suction lines in 7 MCAR § 1.222 D.1. A frost proof yard hydrant shall be located at least 10 feet from the well.

F. Pressure tanks. It is recommended that a pressure tank be installed in an approved pump room or well room. However, partially buried pressure tanks shall project horizontally above the ground or into an approved basement. A totally buried pressure tank may be used if the manufacturer's unit has been approved in writing by the Commissioner as to its design, type of material and specification for its installation. A pressure relief or air release valve on a pressure tank which may contain subterranean gases and which is located within a building shall be vented to the outside.

G. Vents.

1. All wells shall be vented. A casing vent shall be of materials complying with 7 MCAR § 1.222 D. 1. with watertight joints terminating at least 2 feet above the regional flood level or one foot above the established ground surface or the floor of a pump room, well room or approved basement, whichever is higher. The casing vent shall be screened and point downward. Vents may be offset provided they meet the provision of this rule. Any submersible pump shall be installed with a vented cap on the ~~pitless adapter~~ top of the well casing or pitless unit to prevent drawing near surface water, mud, sand, etc., into the well through shielding around the electric cable. Flowing artesian wells may be exempted if protected by a specially designed pitless ~~adapter~~ unit or if the casing is protected as a provided in 7 MCAR § 1.220 B. ~~For wells of an inch and one quarter diameter casing or as otherwise protected to insure that contaminated water will not enter the well not using a drop pipe venting is not required when equipped with a suction pump provided the casing is protected in accordance with 7 MCAR 1.220 B.~~ Where the well casing on small diameter wells (one and one-half inch or less) is used as a suction pipe, the casing need not be equipped with a vented cap, provided the casing is protected in accordance with 7 MCAR § 1.220 B.

2. If toxic or flammable gases are present, they shall be vented from the well. The vent shall extend to the outside atmosphere above the roof level at a point where the gases will not produce a hazard. Openings in pump bases shall be sealed watertight. If the type of gas is not known and is to be carried through the water supply, the administrative authority shall be consulted for proper identification and treatment.

H. Sampling faucet. In a pressure water system provision shall be made for collection of water samples by installation of a faucet or sampling device in a convenient location as near to the well as possible.

I. Disinfection.

1. A new, repaired, or reconditioned well or pump installation shall be thoroughly pumped to waste until the water is as clear as is reasonably possible, dependent upon ground water conditions in the area. Thereafter the well and pumping equipment shall be disinfected with chlorine so applied that a concentration of at least 50 parts per million of chlorine shall be obtained in all parts of the well. The chlorine solution shall be introduced into the well in a manner to flush the well surfaces above the static level with chlorine solution. A minimum contact period of 2 hours shall be provided before pumping the well to waste and flushing the chlorine solution from the distribution system.

2. A licensee shall be responsible for chlorinating the work he performs on the well, pump or pumping equipment.

3. Disinfection in a well repair operation may be accomplished at the beginning of the operation with chlorine applied to obtain a concentration of 200 parts per million for the period of the well repair operation. The water shall be pumped to waste prior to taking of water samples or use being made of the water.

7 MCAR § 1.223 Records and samples.

A. Water sample.

1. Prior to placing the well into service, the licensee will be responsible for collecting one or more water samples from the installation for water quality analysis. Such samples shall be submitted to the Minnesota Department of Health in containers and in accordance with procedures issued by the Director. The results of the data will be stored in a ground water quality information system. The sample must be received within 30 hours of collection. Results of water sample analysis for a domestic supply not acceptable for drinking water will be reported to the well owner and the licensee along with recommendations for corrective actions. The results of the sample analysis is not intended to provide a basis of water quality for a transaction involving the sale or purchase of property.

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2. If the licensee chooses to submit the water sample to a laboratory other than that of the Minnesota Department of Health, that laboratory must be certified by the Minnesota Department of Health for determination of the presence of coliform bacteria. The sample must be collected in containers approved by the Director and must be received by the certified laboratory within 30 hours of the time of collection. The costs of such analysis shall be paid by the licensee. Results of the analysis shall be submitted to the Minnesota Department of Health.

B. Water well records.

1. A water well record shall be completed and submitted to the Commissioner by the licensee within 30 days after completion of any well. The licensee shall furnish the well owner one copy, the Director three copies and retain one copy in his files, of a well record containing such available information as required on the form furnished by the Director. Terms when used for describing formations on the well log form shall conform to definitions set forth in these rules.

2. A water well record shall be submitted for a dry hole. Information on several dry holes within a small area may be submitted on a single well record form if the geologic materials are similar.

3. A well record shall be submitted after an abandoned well has been sealed showing the method of sealing.

C. Water well cutting formation samples. In order to improve the State's water information system, more detailed geologic and hydrologic information is needed about the rocks and sediments which contain the State's groundwater resources. Water well cuttings provide the least expensive source of this kind of information. The information derived from such a program is essential to the better understanding and protection of the State's groundwater resources. The following rules and procedures set forth the means by which such information shall be obtained.

1. The Commissioner in consultation with the Minnesota Geological Survey (hereinafter referred to as the Survey) shall determine areas where water well cutting samples are needed to provide subsurface geological and hydrological information required by the Commissioner, the Survey, and other State agencies for development of the State water information system. The general standards to be used in making such a determination are:

a. To obtain the minimum amount of detailed geologic and hydrologic information needed for the State water information system, at least one set of water well cutting samples per township in rural areas and at least one set of water well cutting samples per section in urban areas are required. The latest State Planning Agency Land-Use Map will be used for determining rural and urban areas for collection of well cutting formation samples.

b. The Commissioner in consultation with the Survey may determine that more information is required from specific areas for accuracy and detail in the State water information system.

c. Water well cutting samples will be required only where there is reason to believe that a well will encounter bedrock materials below glacial sediments or from a well which the licensee estimates will reach a depth of at least 200 feet. The Commissioner may require water well cutting samples from areas other than as specified in this subsection where needed for accuracy and detail in the State water information system.*

2. The Commissioner through the Survey shall notify licensees of the general areas from which water well cutting samples are required and provide the licensees most frequently operating within such areas with maps or lists indicating counties, townships, section, or other designated areas where cutting samples are required. In addition, the Commissioner shall specify the approximate number and depths of wells from which cutting samples are needed in the designated areas.

3. The Survey shall furnish all licensees so notified with well-cutting sample bags, labels, and return postage cards for collecting and reporting water well cutting samples.

4. Licensees so notified and supplied with sample collecting materials shall collect cutting samples during the course of drilling wells in the designated areas according to the requirements specified in the notification. Licensees not supplied with sample collecting materials but who shall have occasion to drill a well in an area designated for sampling shall notify the Survey.

5. Licensees shall collect the cutting samples in an accurate manner so as to insure that they are representative of the materials encountered. Samples shall be taken at 5-foot intervals and at every change in rock or sediment type. The cuttings shall be placed in the sample bags provided by the Survey which shall have an attached tag on which the Commissioner's recording form well-record number of the well, the well owner's name, the well location, and the sample depth (example: 5 ft.) must be written.

6. Licensees shall notify the Survey within 30 days after the well's completion so that the cutting samples can be collected. Pending collection, the contractor shall store the samples in a proper manner, so that they are protected from weather and disturbance and segregated in such a way that all samples may be properly identified with respect to the Commissioner's recording form well-record number and depth interval.

7. The Survey, upon notification by the licensee, shall collect the samples from the contractor. The cutting samples shall be described and a geologic log prepared. The geologic log will be retained in the files of the Minnesota Geological Survey, with a copy being sent to the contractor.

*Any licensee who has reason to believe that a well may be of exceptional geologic or hydrologic interest is encouraged to call collect the Survey to inform that agency of the opportunity to obtain samples, even if the well is not within the area currently designated for collection of samples.

7 MCAR § 1.224 Plastic well casing. In addition to complying with 7 MCAR §§ 1.210-1.223, an installer who uses plastic well casing* must comply with the provisions of this rule with regard to construction and installation.

A. Definitions. The following terms shall have the meanings given them:

1. Installer means any person who constructs a well using plastic casing, whether or not such person is a driller or contractor who is licensed pursuant to Minn. Stat. ch. 156A.

2. Plastic, when used in 7 MCAR §§ 1.210-1.224, means a thermoplastic pipe or casing material composed of either polyvinyl chloride (PVC) or acrylonitrile-butadiene-styrene (ABS).

B. Standards.

1. Any plastic pipe used for water well casing shall meet the standards of the American Society for Testing and Materials, 1916 Race Street, Philadelphia, Pennsylvania, 19103, which are referenced as Standard Specification for Thermoplastic Water Well Casing Pipe and Couplings Made in Standard Dimension Ratios (SDR), ASTM F-480. Such pipe shall be capable of withstanding pressures equal to or greater than 200 pounds per square inch (p.s.i.). Table ~~4~~ 4 lists the pipe included in ASTM F-480 which meets the 200 p.s.i. rating.

Table ~~4~~ 4
Standard Thermoplastic Dimension Ratios (SDR)
and Water Pressure
Ratings (PR) at 23°C (73°F) for Non-Threaded PVC
and ABS Plastic Pipe
Equal to or Greater Than 200 p.s.i.

Pressure Rating of PVC Pipe Materials			
	PVC 1120 PVC 1220 PVC 2120	PVC 2116	PVC 2112
SDR	p.s.i.	p.s.i.	p.s.i.
13.5	315	250	200
17	250	200	
21	200		

Pressure Rating of ABS Pipe Materials		
	ABS 1316	ABS 2112
SDR	p.s.i.	p.s.i.
13.5	250	200
17	200	

2. Any plastic pipe, couplings, or components used in water well casing construction shall have the approval of a testing laboratory which has demonstrated the use of unbiased, reliable and appropriate testing methods, as determined by the Commissioner of Health. Such laboratory must approve the material as being intended for use in the transport of potable water. This approval shall be stamped on the pipe as prescribed below.

3. Pipe Markings.

a. Well casing pipe. The plastic well casing pipe shall be marked at least every 1.5 m (5 ft.), in letters not less than 5 mm (3/16 in.) high in a contrasting color with the following information:

(1) Nominal well casing pipe size (for example, 5 in.), as specified in ASTM-F-480,

(2) Well casing pipe standard dimension ratio, in accordance with designation code given in Table 1 (for example, SDR 17, 1316),

(3) Type of plastic casing pipe material (for example, ABS or PVC),

(4) The wording "well casing" followed by the impact classification (for example, IC-3),

(5) Designation "ASTM F-480" including the year of issue of the standard with which the well casing pipe complies,

(6) Manufacturer's name or trademark,

(7) Manufacturer's code for resin manufacture, lot number, and date of manufacture,

(8) The seal or mark of the laboratory making the evaluation of the plastic for potable water use spaced at intervals specified by the laboratory, and

(9) Pressure rating (must be 200 p.s.i. or more).

b. Well casing pipe coupling. Plastic well casing pipe couplings shall be marked in letters not less than 5 mm (3/16 in.) high, with the following information:

(1) Nominal well casing pipe coupling size (for example, 5 in.), as specified in ASTM-F-480,

(2) Type of plastic well casing pipe coupling material (for example, ABS or PVC),

(3) Designation "ASTM F-480," including year of issue of the standard with which the well casing pipe coupling complies,

(4) Manufacturer's name or trademark, and

(5) The seal or mark of the laboratory making the evaluation of the plastic for potable water use spaced at intervals specified by the laboratory.

C. Plastic well casing pipe size. Where a submersible pump is to be installed inside a plastic casing, the casing diameter

*Laws of 1977, ch. 398, and Laws of 1979, ch. 312 permit the use of plastic well casing in certain Minnesota counties. A list of these counties is appended at the end of this rule.

KEY: RULES SECTION — Underlining indicates additions to proposed rule language. ~~Strike outs~~ indicate deletions from proposed rule language. **PROPOSED RULES SECTION** — Underlining indicates additions to existing rule language. ~~Strike outs~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated "all new material."

shall be no less than five-inch nominal pipe size, as specified in ASTM-F-480.

D. Storage, handling and components. The installer shall:

1. Not use pipe and couplings that have been stored in direct sunlight. Pipe must be stored in such a manner so as to prevent sagging or bending.

2. Inspect pipe and couplings carefully for cuts, gouges, deep scratches, damaged ends and other major imperfections and shall not use any plastic pipe or coupling which has such defects or imperfections.

3. Use solvent cement meeting the requirements of the specifications for the particular plastic used. The cement used shall provide sufficient open time for making good joints but the installer shall complete joints immediately upon applying the solvent cement.

4. Use only pipe and coupling combinations that give close and satisfactory interference fits which will readily mate when the solvent cement is applied and the pieces are joined. The pipe shall enter the socket to between 1/2 or 2/3 of the socket depth when inserted and turned.

5. An installer may use plastic pipe couplings with molded or formed threads but he must use only the thread lubricant which is suitable for the particular type of plastic being used.

6. When the installer connects plastic pipe to a non-plastic well screen, he shall use a coupling appropriate for the specific transition intended.

E. Technique for joining plastic well casing.

1. Cutting. The installer shall use fine tooth blades with little or no set for cutting the pipe. Pipe ends shall be cut square using a miter box. A plastic pipe cutter equipped with extra-wide rollers and thin cutting wheels may be used. Standard steel pipe or tubing cutters shall not be used for cutting plastic pipe.

2. Cleaning. The installer shall clean all dirt, dust, moisture and burrs from pipe ends and couplings. The installer may use only chemical or mechnical cleaners which are suitable for the particular plastic material being used. All burrs shall be removed.

3. Primer. The installer shall use a primer:

a. when, because of the type of plastic material being used, the pipe and coupling surfaces must be softened and dissolved in order to form a continuous bond between the mating surfaces, and/or

b. when the particular type of solvent cement being used requires one.

4. Cement application. The installer shall apply a moderate and even coat of cement[2] to the inside of the coupling to cover the distance of the joining surface only. The installer shall then quickly apply an even coat of cement to the outside of the pipe being joined to a distance which is equal to the depth of the pipe coupling socket.

5. Assembly. The installer shall:

a. make the joint as quickly as possible after application of the cement, and before it dries;

b. reapply cement before assembling if the cement dries partially;

c. insert the pipe into the coupling socket, turning the pipe to insure even distribution of cement;

d. make sure that the pipe is inserted to the full depth of the coupling socket, and assemble pipe by using pipe joiners;

e. remove excess solvent cement from the exterior of the joint with a clean, dry cloth;

f. tighten a threaded joint by no more than one full turn using a strap wrench;

g. not disturb the coupling joint until after the cement has set, in order to avoid damage to the joint and loss of fit;

h. allow sufficient time for the joint to develop good handling strength based on the setting times given in Table 25.

Table 25 Initial Set Time

Temperature Range During Initial Set Time °C (°F)	Set Time for Pipe Sizes 2 to 3 in.	Set Time for Pipe Sizes 3½ to 12 in.
15 to 40 (60 to 100)	30 min.	1 hr.
5 to 15 (40 to 60)	2 hrs.	4 hrs.
−20 to +5 (0 to 40)	6 hrs.	12 hrs.

i. allow sufficient time for the joint to cure before the joined pipe can be dropped into the drilled hole. This additional cure time is specified in Table 36.

Table 36 Joint Cure Schedule

Ambient Temperature °C	Nominal Pipe Sizes 2 to 3 in. SDR 26 and above	2 to 3 in. SDR 21, 17, 13.5	3½ to 12 in. SDR 26 and above	3½ to 12 in. SDR 21, 17, 13.5
15 to 40	2 h*	12 h	6 h	24 h
5 to 15	4 h	24 h	12 h	48 h
−20 to +5	16 h	96 h	48 h	8 days

*When the relative humidity is above 60%, increase all of the above times by 50%.

F. Installation of plastic well casing.

1. The installer shall drill an open hole which is 4 inches larger than the nominal casing size.

2. An installer may not insert the drill stem inside the plastic casing when drilling any kind of well.

3. Grouting.

[2]Caution should be used when handling solvent cement to avoid skin contact or inhalation of vapors.

a. The installer shall fill the annular space between the drill hole wall and the casing pipe with grout (defined in 7 MCAR § 1.210 C.3.) to assure equal loading around the casing in order to prevent collapse or deformation of the casing and to prevent any contamination from entering the well. Native sand may be used in non-artesian wells drilled in outwash material having no clay lense or lenses (a geological stratum composed of clay). The upper 30 feet in any type of well shall be grouted with neat cement grout (defined in 7 MCAR § 1.220 C.3.) using a tremie pipe. A tremie pipe is one which is small enough to fit in the annular space and which carries the grout to the bottom of a hole. The grout shall be fed under pressure from the bottom to the top in one continuous operation.

b. When drilling a rock well, the installer shall seal the casing pipe into the bedrock using neat cement grout (defined in 7 MCAR § 1.220 C.3.).

c. Because of its high heat of hydration, grout made of rapid-setting cement is not permitted for use in wells which are cased with PVC pipe.[38]

4. All plastic-cased wells must terminate above grade as prescribed in 7 MCAR § 1.217 and 7 MCAR § 1.220 A.11. The installer may equip a plastic-cased well with a steel casing or steel pitless unit ~~(adapter)~~ which is satisfactory for use in plastic-cased wells, to a depth equal to or greater than the frost line. Where a steel casing or steel pitless unit is not used, the plastic casing shall be extended above grade to a distance prescribed in 7 MCAR § 1.217 and 7 MCAR § 1.220 A.11., and must be protected with any one of the following:

a. an oversize steel casing which extends from the top of the plastic casing down to a depth below the frost line, or

[38]This table shows the strength of PVC at various temperatures based on 73.4°F being 100% of its tested strength.

50°F	60°F	70°F	80°F	90°F	100°F	110°F	120°F	130°F	140°F	150°F
114%	107%	101%	95%	88%	83%	77%	72%	65%	40%	10%

b. at least 3 posts (schedule 40 steel pipe) of at least 4 inch diameter at equal distances from each other and which are placed 2 feet from the center of the plastic casing. Such posts shall be installed to a depth of 4 feet into solid ground, or to a depth of 2 feet if each post is surrounded with 1 foot of concrete to a depth of 2 feet, or

c. a well house which is constructed so as to provide a degree of protection which is equivalent to that provided in b. above.

5. The installer shall plug and abandon a bore hole as prescribed in 7 MCAR § 1.218 C.2.:

a. whenever the plastic casing cannot be installed without exerting pressure, or

b. whenever a screen or pump cannot be installed without force, or

c. whenever the casing fails during the construction or pumping stages.

APPENDIX

List of Counties Where Plastic Casing May be Used

Aitkin	Kandiyohi	Pipestone
Becker	Kittson	Polk
Beltrami	Lac Qui Parle	Pope
Benton	Lake of the Woods	Red Lake
Big Stone	Lincoln	Renville
Cass	Lyon	Rock
Chippewa	Mahnomen	Roseau
Clay	Marshall	Sherburne
Clearwater	Martin	Stearns
Cottonwood	Meeker	Swift
Crow Wing	Mille Lacs	Stevens
Douglas	Morrison	Todd
Grant	Murray	Traverse
Hubbard	Nobles	Wadena
Isanti	Norman	Wilkin
Itasca	Otter Tail	Yellow Medicine
Jackson	Pennington	

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PROPOSED RULES

Pursuant to Minn. Stat. § 15.0412, subd. 4, agencies must hold public hearings on proposed new rules and/or proposed amendment of existing rules. Notice of intent to hold a hearing must be published in the *State Register* at least 30 days prior to the date set for the hearing, along with the full text of the proposed new rule or amendment. The agency shall make at least one free copy of a proposed rule available to any person requesting it.

Pursuant to Minn. Stat. § 15.0412, subd. 5, when a statute, federal law or court order to adopt, suspend or repeal a rule does not allow time for the usual rulemaking process, temporary rules may be proposed. Proposed temporary rules are published in the *State Register*, and for at least 20 days thereafter, interested persons may submit data and views in writing to the proposing agency.

Public Hearings on Agency Rules October 29-November 2, 1979

Date	Agency & Rule Matter	Time & Place
Oct. 30	Office of the Secretary of State Election Judge Training, Absentee Voting Materials and Delivery Procedures, Voter Registration, Preparation of White Ballot, Certification and Use of Voting Machines Hearing Examiner: George A. Beck	10:00 a.m., Room 57, State Office Bldg., 435 Park Street, St. Paul, MN

Pollution Control Agency

Proposed Rules Governing Standards of Performance for Coal Handling Facilities within Designated Areas and Fugitive Emissions within Designated Areas

Notice of Reconvened Hearing

Notice is hereby given that rule hearings in the above-captioned matter will be reconvened in the Board Room of the Minnesota Pollution Control Agency, 1935 West County Road B2, Roseville, Minnesota, on Wednesday, November 28, 1979, commencing at 9:00 a.m. and continuing until all persons have had an opportunity to be heard.

This hearing is a continuation of hearings held on September 10, 11, 12, 13, 17 and 18, and October 4, 1979 concerning the above-captioned rules, notice of which was given at 4 S.R. 9 (July 9, 1979). After considering comments received at these hearings the Agency is proposing that certain changes be made to the rules proposed for adoption as published at 4 S.R. 10-22 (July 9, 1979). Additions are indicated by underlining and deletions are indicated by strikeouts. The rules as published hereinafter are now officially proposed by the Agency, and the rules as published at 4 S.R. 10-22 are superseded.

The Agency invites all interested persons to submit written and oral comments on the proposed rules at any time prior to the November 28 hearing. All written comments received will be made a part of the record. Comments should be addressed to Mr. Brad Beckham, Division of Air Quality, Minnesota Pollution Control Agency, 1935 West County Road B2, Roseville, Minnesota 55113 (612/296-7265).

To date the hearing record includes transcripts of the hearings and 139 exhibits, which are available for inspection by members of the public during regular business hours at the Agency's offices.

All interested persons will have an opportunity to participate at the rule hearings through presentation of oral or written statements. Written materials may be submitted by mail to Mr. Howard Kaibel, Office of Hearing Examiners, 1745 University Avenue, St. Paul, Minnesota 55104 (612/296-8107), either before or after the hearings until the record is closed. The record will remain open for five working days after the rule hearings end, or for a longer period not to exceed twenty days if ordered by the Hearing Examiner. The Agency requests that one copy of all written materials sent to Mr. Kaibel be mailed to Mr. Brad Beckham at his address given in the preceding paragraph.

Notice: The proposed rule is subject to change as a result of the rule hearing process. The Agency therefore strongly urges those who are potentially affected in any manner by the substance of the proposed rule to participate in the rule hearing process.

The proposed rule 6 MCAR § 4.0033, if adopted, will establish standards of performance for coal handling facilities within the Twin Cities Air Quality Control Region and Duluth with respect to emissions of particulate matter. The proposed rule 6 MCAR § 4.0040, if adopted, will establish standards of performance for certain sources of fugitive particulate emissions resulting from or related to industrial or commercial activity within the Twin Cities Air Quality Control Region, the City of Duluth, and the City of International Falls. Sources of fugitive emissions subject to this proposed rule include: materials transport, building openings, storage pile loading, materials transfer (loading, unloading), sandblasting, construction, demolition, and other similar operations.

The proposed rule 6 MCAR § 4.0040, if adopted, will also require the pavement or treatment (with water, oils or dust suppressants) of roads and parking facilities located on mining, manufacturing, industrial or other commercial properties. The latter category of properties include but are not

limited to shopping facilities and other commercial business facilities.

The Agency's authority to promulgate the proposed rule is contained in Minn. Stat. § 116.07, subd. 4 (1978).

Copies of the proposed rule are now available and one free copy may be obtained by writing to Mr. Brad Beckham, Division of Air Quality, Minnesota Pollution Control Agency, 1935 West County Road B2, Roseville, Minnesota 55113. Additional copies will be available at the hearing at each location.

Notice: Any person may request notification of the date on which the Hearing Examiner's Report will be available, after which date the Agency may not take any final action on the rule for a period of five working days. Any person may request notification of the date on which the hearing record has been submitted (or resubmitted) to the Attorney General by the Agency. If you desire to be so notified, you may so indicate at the hearings. After the hearings, you may request notification by sending a written request to the Hearing Examiner (in the case of the Hearing Examiner's Report), or to the Agency (in the case of the Agency's submission or resubmission to the Attorney General).

Notice is hereby given that 25 days prior to the hearings, a Statement of Need and Reasonableness will be available for review at the Agency and at the Office of Hearing Examiners. This Statement of Need and Reasonableness will incorporate by reference all relevant portions of the Statement of Need and Reasonableness which is currently a part of the record in this proceeding (MPCA Exhibit 84) and will include new material showing the reasonableness of the amendments to the rule proposed herein. Copies of the Statement of Need and Reasonableness may be obtained from the Office of Hearing Examiners at a minimal charge.

Please be advised that Minn. Stat. ch. 10A (1978) requires each lobbyist to register with the Ethical Practices Board within five days after he commences lobbying. Lobbying includes attempting to influence rulemaking by communicating or urging others to communicate with public officials. A lobbyist is generally any individual who spends more than $250.00 per year for lobbying or any individual who is engaged for pay or authorized to spend money by another individual or association and who spends more than $250.00 per year or five hours per month lobbying. The statute in question provides certain exceptions. Questions should be directed to the Minnesota Ethical Practices Board, 41 State Office Building, St. Paul, Minnesota 55155, telephone (612) 296-5615.

October 4, 1979

Terry Hoffman, Executive Director
Pollution Control Agency

Rules as Proposed

6 MCAR § 4.0033 Standards of performance for coal handling facilities within designated areas.

A. Definitions. As used in this rule the following words shall have the meanings defined herein:

~~1. "Class A Coals" means a coal which contains less than 4% silt.~~

~~2. "Class B Coals" means a coal which contains 4% or more silt.~~

1. ~~3.~~ "Coal" means any solid fossil fuel described as anthracite, bituminous, subbituminous, lignite, or coke (as derived from coal). ~~by ASTM designation: D 388-66 (Appendix A).~~

2. ~~4.~~ "Coal handling facility" means a facility where coal is handled such as coal transshipment terminals, electric generating plants, boiler plants, or steam plants.

3. ~~5.~~ "Coal handling" means operations including, but not limited to, operations such as dumping, loading, unloading, storing, reclaiming, transferring, and conveying.

4. ~~6.~~ "Coal throughput" means the number of tons of coal received plus the number of tons of coal shipped by an owner or operator of a coal transshipment ~~handling~~ facility in any one calendar year. In the case of facilities where coal is consumed at the same facility where received, such as electric generating plants, boiler plants, or steam plants, coal throughput means the number of tons of coal received at the facility.

5. ~~7.~~ "Dust suppression methods" mean dust control equipment or measures including ~~described~~, but not limited to, hoppers, hoods, screens, enclosures, wetting or chemical agents, foam agents, surfactants, pre-cleaning treatment, utilizing induced draft and air pollution control equipment, ~~and~~ watering~~.~~, and other equivalent methods approved by the Director.

6. ~~8.~~ "Hauler" means any vehicle engaged in ~~capable of~~ reclaiming, moving, or dumping coal within a coal handling facility.

7. ~~9.~~ "Pneumatic coal-cleaning equipment" means any equipment which classifies coal by size or separates coal from refuse by application of air stream(s).

~~10. "Silt" means the material in coal which passes through a 200 mesh sieve in accordance with ASTM designation: D431-44 (Appendix B) and D410-38 (Appendix C).~~

8. ~~11.~~ "Thermal dryer" means any device in which the moisture content of coal is reduced by contact with a heated gas stream which is exhausted to the atmosphere.

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9. "Reasonably available control technology (RACT)" is the lowest emission limit that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility.

10. "Minimize" means, with respect to the control of fugitive emissions, to reduce such emissions to a level consistent with RACT.

B. Standards of performance for certain ~~large~~ coal handling facilities. The owner or operator of a new or existing coal handling facility which ~~has a coal throughput of 50,000 tons or greater and~~ is located within the Minneapolis-St. Paul Air Quality Control Region or within the boundaries of the City of Duluth~~, and the owner or operator of a new coal handling facility located outside the Minneapolis-St. Paul Air Quality Control Region and outside the boundaries of the City of Duluth having a coal throughput of 50,000 tons or greater and the owner or operator of an existing coal handling facility located outside the Minneapolis-St. Paul Air Quality Control Region and outside the boundaries of the City of Duluth having a coal throughput of 100,000 tons or greater~~ shall perform the following abatement measures unless otherwise exempt by portions of this rule:

1. Access areas, roads, parking facilities.

a. Install asphalt or concrete surfaces or chemical agents on all active truck haul roads of the coal handling facility when the coal throughput by truck is 200,000 tons or greater. All paved roads and areas shall be cleaned to minimize the discharge to the atmosphere of fugitive particulate emissions. Such cleaning shall be accomplished in a manner which minimizes resuspension of particulate matter. Access areas surrounding coal stockpiles and parking facilities which are located within a coal handling facility shall be treated with water, oils, or chemical suppressants.

b. No person shall cause or permit the use of access areas surrounding coal stockpiles and use of all active truck haul roads and parking facilities which are located within a coal handling facility whose coal throughput by truck is less than 200,000 tons unless such areas and roads are treated with water, oils, or chemical agents ~~suppressants.~~

2. Coal loading stations. Control fugitive particulate emissions from the loading of trucks, haulers, and railcars by dust suppression methods ~~systems~~ so that emissions from such sources are minimized ~~do not exceed 10% capacity.~~

3. Truck and hauler unloading stations. Control fugitive particulate emissions from the unloading of trucks or haulers by dust suppression methods ~~systems~~ so that emissions from such sources are minimized. ~~do not exceed 10% capacity.~~

4. Barge or vessel loading stations.

a. When the amount of coal loaded into barges or vessels at a given facility is 200,000 tons per year or greater, ~~C~~conveyor systems shall utilize loadout spouts with remote control capability for movement sideways, up and down, and telescoping so as to decrease as much as practical the ~~maintain a maximum~~ vertical free fall of coal ~~of 12 inches~~ at all times during the loadout operation. Choke feeding devices, flood loading or other equivalent equipment or methods may be installed as alternates on conveyor systems to control fugitive emissions. Crane and shovels shall be operated so as to minimize the vertical free fall of coal. Control fugitive particulate emissions during loading by the above reference methods so as not to exceed 20% ~~10%~~ opacity.

b. When the amount of coal loaded into barges or vessels at a given facility is less than 200,000 tons per year, control fugitive particulate emissions by dust suppression methods so that emissions from such sources are minimized.

5. Barge or vessel unloading station. Cranes, shovels, and conveyors shall be operated in a manner which decreases as much as practical ~~minimizes~~ the vertical free fall of coal. Control fugitive particulate emissions during unloading so that fugitive particulate emissions are minimized. ~~as not to exceed 10% opacity.~~

6. Stockpiles, stockpile construction and reclaiming.

a. Control fugitive particulate emissions by dust suppression methods on such operations so that fugitive particulate emissions are minimized. ~~do not exceed 10% opacity.~~

b. In the alternative use an underground bottom feed (plow) of coal to an underground conveyor system provided the exhaust gases from the enclosed spaces do not contain particulate matter in excess of 0.020 grains per dry standard cubic foot (gr/dscf).

7. Enclosed coal handling facilities or emission sources not specifically covered by any other provision in this rule. Control exhaust gases from any enclosed coal handling operation so that particulate emissions in such gases do not exceed 0.020 gr/dscf or ~~and~~ 20 percent ~~10 percent~~ opacity.

8. Railcar unloading.

a. When the amount of coal unloaded by rail is 200,000 tons per year or greater, ~~U~~unload railcars only within a permanent building or structure and install an exhaust air system or apply dust suppression methods such that fugitive particulate emissions from any openings do not exceed 20 percent ~~10 percent~~ opacity.

b. When the amount of coal unloaded by rail is less than 200,000 tons per year control fugitive particulate emissions during unloading so that fugitive particulate emissions are minimized.

~~b. Install air pollution control equipment on the exhaust air system such that exhaust gases do not contain particulate matter in excess of 0.020 gr/dscf.~~

9. Operating practices.

a. Clean up all coal spillsed on roads or access areas as soon as practicable using methods that minimize~~ing suspending~~ the amount of dust suspended. ~~accumulated on the roadways or haul roads.~~

b. Maintain air pollution control equipment in proper operating condition and utilize air pollution control systems as designed.

~~10. Class B coals~~

~~a. Store Class B coals in an enclosed building, silo, or structure; or place Class B coals in open stockpiles provided surface hardening agents are applied over the entire stockpile to the extent that fugitive particulate emissions do not exceed 10% opacity.~~

~~b. As required, ensure that a cover is placed over all open bed trucks containing class B coals before leaving the coal handling facility to minimize fugitive particulate emissions.~~

~~c. Apply dust suppression methods to Class B coals during handling to the extent that fugitive particulate emissions do not exceed 10% opacity.~~

~~d. Apply dust suppression methods to Class B coals prior to shipment by truck, rail, or vessel.~~

~~C. Standards of performance for certain small coal handling facilities. The owner or operator of a new or existing coal handling facility which has a coal throughput of less than 50,000 tons and is located within the Minneapolis-St. Paul Air Quality Control Region or within the boundaries of the City of Duluth and the owner or operator of a new coal handling facility having a coal throughput of less than 50,000 tons located outside the Minneapolis-St. Paul Air Quality Control Region and outside the boundaries of the City of Duluth and the owner or operator of an existing coal handling facility located outside the Minneapolis-St. Paul Air Quality Control Region and outside the boundaries of the City of Duluth having a coal throughput of greater than 50,000 tons but less than 100,000 tons shall perform the following abatement measures:~~

~~1. Clean up all coal spills as soon as practicable minimizing suspending the dust accumulated on the roadways or haul roads.~~

~~2. Maintain air pollution control equipment in proper operating condition and utilize air pollution control system as designed.~~

~~3. Apply dust suppression methods on hauler, and railcar coal loading and unloading stations, barge or vessel loading and unloading stations, conveyor transfer operations and stockpile construction and reclaiming operations so that fugitive particulate emissions from such sources do not exceed 10% opacity.~~

~~4. Class B coals.~~

~~a. Store Class B Coals in an enclosed building, silo, or structure; or place Class B coals in open stockpiles provided surface hardening agents are applied over the entire stockpile to the extent that fugitive particulate emissions do not exceed 10% opacity.~~

~~b. As required, ensure that a cover is placed over all open bed trucks containing class B coals before leaving the coal handling facility to minimize fugitive particulate emissions.~~

~~c. Apply dust suppression methods to Class B coals during handling to the extent that fugitive particulate emissions do not exceed 10% opacity.~~

~~d. Apply dust suppression methods to Class B coals prior to shipment by truck, rail, or vessel.~~

~~5. Access areas, roads, parking facilities.~~

~~No person shall cause or permit the use of access areas surrounding coal stockpiles and the use of roads and parking facilities which are located within a coal handling facility unless such areas and roads are treated with water, oils, or chemical dust suppressants.~~

~~6. Enclosed coal handling facilities or emission sources. Control exhaust gases from any enclosed coal handling operation so that fugitive particulate emissions do not exceed 0.020 gr/dscf and 10% opacity.~~

C. ~~D.~~ Standards of performance for ~~small~~ existing outstate coal handling facilities. The owner or operator of an existing coal handling facility which ~~has a coal throughput of less than 50,000 tons and~~ is located outside the Minneapolis-St. Paul Air Quality Control Region and outside the boundaries of the City of Duluth shall comply with the requirements of existing rule APC 6 (6 MCAR § 4.0006) for the control of fugitive particulate emissions.

D. ~~E.~~ Standards of performance for pneumatic coal-cleaning equipment and thermal dryers at any coal handling facility.

1. Pneumatic coal-cleaning equipment. The owner or operator of a coal handling facility shall not cause to be discharged into the atmosphere from any pneumatic coal-cleaning equipment any gases which:

a. Contain particulate matter in excess of 0.040 g/dscm (0.018 gr/dscf); or ~~and~~

b. Exhibit 20 ~~10~~ percent opacity or greater.

2. Thermal dryers. The owner or operator of a coal handling facility shall not cause to be discharged into the atmosphere from any thermal dryer any gases which:

a. Contain particulate matter in excess of 0.070 g/dscm (0.031 gr/dscf); or ~~and~~

b. Exhibit 20 percent opacity or greater.

KEY: RULES SECTION — Underlining indicates additions to proposed rule language. ~~Strike outs~~ indicate deletions from proposed rule language. **PROPOSED RULES SECTION** — Underlining indicates additions to existing rule language. ~~Strike outs~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated "all new material."

3. The owner or operator shall install pneumatic coal-cleaning equipment and thermal dryers in a manner that performance tests for particulate matter can be run in accordance with applicable procedures and methods set forth in Sections G. ~~I.~~ and H. ~~J.~~ of this rule.

4. Monitoring.

a. The owner or operator of any coal handling facility that contains a thermal dryer shall install, calibrate, maintain, and continuously operate monitoring devices as follows:

(1) A monitoring device for the measurement of the temperature of the gas stream at the exit of the thermal dryer on a continuous basis. The monitoring device shall be certified by the manufacturer to be accurate within ± 3° Fahrenheit.

(2) In the event a venturi scrubber emission control equipment is utilized:

(a) A monitoring device for the continuous measurement of the pressure loss through the venturi constriction of the control equipment. The monitoring device shall be certified by the manufacturer to be accurate within ± 1 inch water gauge.

(b) A monitoring device for the continuous measurement of the water supply pressure to the control equipment. The monitoring device shall be certified by the manufacturer to be accurate within ± 5 percent of design water supply pressure. The pressure sensor or tap shall be located close to the water discharge point.

(3) The owner or operator of a coal handling facility who is required to maintain monitoring devices shall recalibrate each device annually in accordance with the manufacturer's written requirements for checking the operation and calibration of the device.

E. ~~F.~~ Exemptions.

1. Visible emission (opacity) requirements of B.4.a. ~~this rule~~ shall not apply when the wind speed is greater than 25 miles per hour, as determined ~~by a one hour average or hourly recorded value~~ at the nearest official station of the U.S. Weather Bureau or by wind speed instruments on or adjacent to the site.

2. During freezing temperatures, owners or operators shall ~~are~~ not be required to apply water ~~wetting~~ or dust suppressants. ~~chemical agents, foam agents, or water providing precipitation and/or snow cover ensures that fugitive emissions do not exceed 10% opacity.~~

F. ~~G.~~ Cessation of operations. The owner or operator of a coal handling facility shall not conduct any non-essential coal handling operations that are not shielded from the wind or enclosed in a building when steady wind speeds exceed 30 miles per hour as determined ~~by a one-hour average or hourly recorded value~~ at the nearest official station of the U.S. Weather Bureau or by wind speed instruments on or adjacent to the site.

G. ~~H.~~ Performance test method. Unless another method is approved by the Director, any person required to conduct ~~submit~~ performance tests for coal handling facilities shall utilize the following test methods, as referenced in 40 C.F.R. Part 60, Appendix A as in force on the effective date of this rule:

1. Method 1 for sample and velocity traverses.

2. Method 5 for the concentration of particulate material and moisture content.

3. Method 9 for the visual determination of the opacity of emission from stationary sources.

H. ~~I.~~ Performance test procedures. For Method 5, the sampling time for each run shall be at least 60 minutes and the minimum sampling volume shall be 0.85 dscm (30 dscf) except that smaller sampling times or volumes, when necessitated by process variables or other factors, shall be approved by the Director. The probe and filter holder heating systems in the sampling train shall be set to provide a gas temperature between 100°C and 120°C (212°F and 250°F). Sampling shall not be started until at least 30 minutes after start up and shall be terminated before shut down procedures commence. The owner or operator shall eliminate cyclonic flow during performance tests.

~~1. For Method 1, as referenced in 40 CFR 60, Appendix A.~~

~~2. For Method 5, the sampling time for each run shall be at least 60 minutes and the minimum sampling volume shall be 0.85 dscm (30 dscf) except that smaller sampling times or volumes, when neceessitated by process variables or other factors, shall be approved by the Agency. The probe and filter holder heating systems in the sampling train shall be set to provide a gas temperature between 100°C and 120°C (212°F and 250°F). Sampling shall not be started until at least 30 minutes after start up and shall be terminated before shut-down procedures commence. The owner or operator shall eliminate cyclonic flow during performance tests.~~

~~3. For Method 9 opacity shall be determined in accordance with APC 21 (b)(7)(bb) (as revised).~~

I. ~~J.~~ Dust suppressant agents. Nothing in this rule shall authorize the use of surface hardening agents, wetting or chemical agents, foam agents, and oils that may cause ground water or surface water contamination in violation of any applicable water pollution law.

The agency proposes to delete, in their entirety, Appendices A, B and C published at *State Register*, Volume 4, Number 1, pp. 14-21.

6 MCAR § 4.0040 Fugitive emissions within designated areas.

A. Definitions. As used in this rule the following words shall have the meanings defined herein:

1. "Fugitive emissions" means emissions of particulate matter resulting from or generated by ~~related to~~ industrial

or commercial activity, other than agricultural farming operations, which are not captured and exhausted to the atmosphere through a stack but which escape directly to the atmosphere either through openings such as doors, windows, and building ventilators or from outdoor operations including materials handling or from sources such as storage piles and haul roads.

2. "Material" means a bulk commodity consisting of pieces and particles not of uniform size, including particles in the size range known as silt, which are capable of passing a 200-mesh screen. Materials include, but are not limited to, sand, gravel, crushed rock, soil, clay, ~~grain,~~ fertilizer, salt, limestone, petroleum coke, ore, and taconite pellets.

3. "Reasonably available control technology (RACT)" is the lowest emission limit that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility.

4. "Minimize" means, with respect to the control of fugitive emissions, to reduce such emissions to a level consistent with RACT.

B. Applicability. This rule applies to sources of fugitive emissions in the Minneapolis-St. Paul Air Quality Control Region, the City of Duluth, and the City of International Falls for which standards of performance have not been promulgated in a specific rule. Fugitive emission sources not specifically covered in this rule or in a separate rule are subject to the requirements of rule APC 6 (6 MCAR § 4.0006).

C. Standards of performance.

1. Materials transport. No person shall cause or permit the transporting of materials in a motor vehicle in a manner which allows the release of particulate matter from the vehicle into the atmosphere or onto a roadway, except that sand, salt, or other de-icing agents may be dropped for the purpose of securing traction. As appropriate under the circumstances ~~required~~, such escape of material shall be minimized by means such as watering, applying dust suppressants, ~~or~~ covering the load or providing sufficiently high sides and tail gates on the truck box.

2. Building openings. No person shall cause or permit the discharge into the atmosphere of any visible fugitive emissions having a density of greater than ten (10) ~~five (5)~~ percent opacity from building openings such as doors, windows, and vents.

3. Storage piles and storage pile loading. The requirements of this subsection apply to operations producing, processing, or storing more than 100,000 tons of a material per year.

a. No person shall cause or permit the storage of materials unless such storage piles are enclosed or covered, or sprayed with water or dust suppressants, or treated by a practicable equivalent method, as appropriate under the circumstances, ~~required~~ to minimize the discharge into the atmosphere of fugitive emissions.

b. No person shall cause or permit the loading of materials onto storage piles unless such loading operations utilize telescopic chutes, adjustable conveyors, or other equivalent methods to decrease as much as practical ~~minimize~~ the fall of material or utilize spray systems or equivalent methods to minimize the discharge into the atmosphere of fugitive emissions.

4. Access areas, roads, parking facilities. No person shall cause or permit the use of access areas surrounding storage piles and the use of roads and parking facilities which are located on mining, manufacturing, industrial, or other commercial properties unless such areas and roads are paved or treated with water, oils, or dust suppressants. All paved roads and areas shall be cleaned to minimize the discharge to the atmosphere of fugitive emissions. Such cleaning shall be accomplished in a manner which minimizes resuspension of particulate matter.

5. Materials handling. No person shall cause or permit the moving, transferring, or handling of any materials in the outdoors using bulk material moving equipment unless reasonable measures such as applying water or dust suppressants to the material or utilizing practices which reduce as much as practical ~~minimize~~ disturbance of the storage pile are taken to minimize the discharge into the atmosphere of fugitive emissions.

6. Materials transfer — unloading, loading.

a. Unloading. No person shall cause or permit railcar or truck dumping or bottom unloading operations unless measures such as the following are taken to minimize the discharge into the atmosphere of fugitive emissions: enclosing, utilizing induced draft and air pollution control equipment, applying water or dust suppressants to the material, or utilizing equivalent methods. No person shall cause or permit barge or ship unloading operations unless cranes, shovels, or conveyors are operated in a manner which decreases as much as practical the fall of material.

b. Loading. No person shall cause or permit the transfer of materials from a storage hopper or similar container to a truck, trailer, railcar, barge, or ship unless measures such as the following are taken to minimize the discharge into the atmosphere of fugitive emissions: enclosing or hooding and utilizing induced draft and air pollution control equipment; applying water or dust suppressants to the material; operating cranes, shovels, chutes, or conveyors in a

manner which decreases as much as practical the fall of material; or utilizing equivalent methods.

~~6. Materials transfer — unloading, loading. No person shall cause or permit the discharge into the atmosphere of any visible fugitive emission having a density of greater than ten (10) percent opacity from railcar or truck dumping or bottom unloading operations or from the transfer of materials from a storage hopper or similar container to a truck, trailer, railcar, ship or barge.~~

7. Miscellaneous operations. No person shall cause or permit the discharge into the atmosphere of any visible fugitive emission having a density of greater than twenty (20) ~~ten (10)~~ percent opacity from crushers, screening operations, bucket elevators, or conveyor transfer points.

8. Sand blasting. No person shall cause or permit any sand or other abrasive blasting, preparation before such blasting, or clean up following such blasting, unless reasonable measures such as water injection, enclosing, or vacuuming are taken to minimize the discharge into the atmosphere of fugitive emissions.

9. Construction and demolition. No person shall cause or permit the operation of a construction site or demolition project, including earthmoving, grading, and site preparation, unless reasonable measures such as watering or treatment with dust suppressants are taken to minimize the discharge into the atmosphere of fugitive emissions.

~~10. Exemptions.~~

D. Exemptions.

1. Visible emission (opacity) requirements of subsections ~~C.6. and~~ C.7. shall not apply when the wind speed is greater than 25 miles per hour, as determined ~~by a one hour average or hourly recorded value~~ at the nearest official station of the U.S. Weather Bureau or by wind speed instruments on or adjacent to the site.

2. During freezing temperatures, owners or operators shall not be required to apply water or dust suppressants.

E. Performance test method. Unless another method is approved by the Director, any person required to conduct performance tests for the visual determination of opacity of emissions from facilities subject to this rule shall utilize Method 9, as referenced in 40 C.F.R. Part 60, Appendix A as in force on the effective date of this rule.

Department of Transportation Aeronautics Division

Proposed Rules, Amendments and Deletions Governing Aeronautics

Notice of Hearing

Notice is hereby given that a public hearing in the above-entitled matter will be held pursuant to Minn. Stat. § 15.0412, in the State Office Building, Room 83, Wabasha Street, Saint Paul, Minnesota 55155, on November 27, 1979, commencing at 9:30 a.m., and continuing until all persons have had an opportunity to be heard.

The Commissioner of Transportation has been provided the statutory authority to promulgate rules governing airports and aeronautics pursuant to Minn. Stat. § 360.015, subd. 3 (1978). The proposed rules affect most chapters of 14 MCAR, excluding the chapter on airport zoning. The proposal is best characterized as a modification of existing rules rather than the addition of entirely new rules.

The proposed rule changes are partly matters of substance and partly matters of form. One major purpose of the revision is to eliminate state regulations which merely duplicate parallel federal regulations. Certain other areas of state regulation have been eliminated where and to the extent that experience has shown that regulation is not necessary. Other substantive changes have been made as outlined below. Many of the changes are being made for purposes of clarification.

The major changes in the proposed rules which represent a change in substance from the rules as they presently exist are as follows:

1. The general requirements for airport licensing would no longer require the submission of approvals from other governmental agencies as part of the license application.

2. The provision on minimum size of a runway for a public airport would be changed. The existing width requirement for a turf runway is 150 feet. The new requirement would be 75 feet with an additional 75 feet which is clear of obstructions. The new width requirement for a hard-surfaced runway is 60 feet plus the 75-foot clear zone.

3. A new requirement for runway grade has been added. The proposed provision requires that any two points five feet above the runway centerline be mutually visible for the entire runway length.

4. Wind indicators at lighted airports would have to be lighted in all cases, whether or not the airport is advertised as lighted.

5. Airport lights would no longer need to be kept on from dusk to dawn if a radio control system is available.

6. The Aeronautics Division no longer would require, as a condition of airport licensing, that Department of Natural Resources and other governmental approvals be submitted to it for construction or alteration of shoreline.

7. The proposed rules regarding licensing of a public seaplane base require that all hazards, including underwater hazards, be marked if they are in the approach, departure or taxiing areas.

8. The requirement for facilities at public seaplane bases would be decreased with regard to items other than those required for safety.

9. Windsocks at public heliports would have to be of a specified size and color and be lighted if the heliport is lighted.

10. Warning signs would be required at public heliports.

11. The proposed rule as to private airports now explicitly states that such an airport shall not be held out for public use but may be shown on aeronautical charts as a restricted facility.

12. For private airports, the minimum runway length requirement would be reduced from 2500 feet to 2000 feet. The width requirement would be reduced from 150 feet to 75 feet for turf runways and 60 feet for hard-surfaced runways. In addition, an area 75 feet on either side of the centerline would have to be free of obstructions.

13. In the case of a private airport, the primary surface, under the proposed rules, would end at the end of the runway in all cases. Additionally, the width of the primary surface would be reduced to 200 feet. These changes are true regardless of the type of runway involved.

14. The approach surface for private airports has been limited, under the proposed rule, in all cases, to a length of 10,000 feet and a slope of 20.1. The approach surface would expand uniformly to a width of 2,250 feet for all runways on private airports.

15. In the case of private airports, a requirement would be added that such an airport shall not impose undue hazards upon adjoining property or its occupants or endanger the user or use of existing surface communication or transportation.

16. A private airport may now be used, under the proposed rule, for limited commercial operations whether or not all of the public airport requirements are met. The scope of these commercial operations is detailed below.

17. It is explicitly provided under the proposal that a private seaplane base shall not be held out for public use nor shall it be displayed on aeronautical charts except as a restricted facility.

18. For private seaplane bases, the requirement that approval of the Department of Natural Resources and other governmental agencies be obtained as a prerequisite to licensing would be deleted.

19. The approach, departure and taxiing areas for private seaplane bases no longer need to be marked under the proposed rules. A new requirement that hazards be marked has been added.

20. The requirements for wind indicators, life preservers and lines on private seaplane bases have been decreased under the proposal.

21. A new requirement would be added specifying that a private seaplane base not impose undue hazards upon adjoining property or its occupants or endanger the users of existing surface communication or transportation.

22. A private seaplane base may be used for limited commercial operations under the proposed rule.

23. A private heliport would have to have at least two obstruction-free approach-departure paths which must be separated by an arc of at least 90 degrees. These paths must have emergency landing areas available. This requirement now applies only to public heliports.

24. A private heliport may be displayed on aeronautical charts under the proposed rule. A private heliport must not impose undue hazards upon persons or property.

25. Personal-use landing areas would be redesignated as personal-use airports, personal-use seaplane bases and personal-use heliports. The landing surface of each must be smooth and free of hazards or obstructions. A personal-use airport could be used as a base of commercial operation for aerial photography and balloon operations in addition to aerial spraying and dusting.

26. As to unlicensed landing areas, the proposed rules would require that the landing area not impose undue hazards upon adjoining property or its occupants or damage the users or use of surface communication or transportation.

27. The proposed rules add a requirement that seaplane operations be conducted in accordance with marine traffic rules to the extent possible, consistent with aircraft safety. Where possible, boats or persons on the water's surface should be cleared by at least 300 feet, both laterally and vertically. Approaches and takeoffs must be made so as to clear structures on the ground by at least 100 feet. Operation of ski-equipped aircraft would be allowed on any frozen lake so long as the operation is conducted in a safe and reasonable manner.

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28. Commercial operations would no longer be required to report accidents. Commercial operations involving only aircraft service and maintenance would be allowed to operate on licensed private airports. Personal-use airports could be used as a base of operations by commercial operators who do not engage in aircraft charter, rental or leasing, flight instruction or service and maintenance. In all cases, the commercial operator would have to comply with the airport owner's rules and requirements as a condition of being licensed.

29. The proposed rule would eliminate the present requirements that a commercial operator:

a. use only FAA-certified aircraft;

b. employ only FAA-certified airmen; and

c. have a telephone on the business premises.

30. Flight school operations, under the proposed rules, would be required to include a section regarding applicable Minnesota aeronautics statutes and regulations in the course outline. The operator would also be required to disclose to each student whether or not the student was covered under the operator's insurance policies and the extent of coverage, if any.

31. Ground school operators would also be required to include a section on Minnesota aeronautical statutes and rules in the course outline.

32. A commercial operator which rents or leases aircraft would be required to inform the renter or lessee whether he or she was covered under the operator's insurance policies and the type and extent of coverage, if any.

33. The proposed rule would no longer require that pilots meet any special qualifications to engage in aerial spraying or dusting. Employment of pilots with these previously specified qualifications would no longer be a condition of granting a commercial operations license for spraying or dusting.

34. The proposed rule would require that commercial operators in the area of aircraft service and maintenance inform their customers as to whether hangarkeeper's insurance is in effect and the extent of coverage, if any.

35. All general operation rules, pilot operating rules, student pilot limitations, requirements for private and commercial pilots, general air traffic rules, general flight rules and visual and instrument flight rules have been eliminated. These areas are now adequately regulated by the federal government.

36. The proposed rules on parachuting have been substantially revised. All of the existing rules have been deleted and two new sections have been written. The proposed rule contains these basic points:

a. A person or organization engaging in parachuting for hire or compensation must be licensed as a commercial operator.

b. Parachute jumps in Minnesota must comply with Federal Aviation Regulations.

c. Parachute jumps onto public airports require either a waiver from the FAA in connection with an airshow, or permission of the Commissioner of Transportation. A request of the Commissioner must be made at least ten (10) days in advance. Public airports are to be closed during parachute jumps onto airport property and may not be closed for more than two hours at a time.

d. Permanent drop zones are to be licensed by the state annually and depicted on aeronautical charts.

37. The proposed rule on flying clubs has been revised to delete certain unnecessary definitions. Also, the annual registration report would have to include certain insurance information and a statement of each member's share of club assets. The circumstances under which a flying club may be considered a commercial operation have been broadened to include those situations in which (a) a member of the club leases an aircraft to the club; and (b) a member of the club who leases an aircraft to the club also gives flight instruction to members, whether or not for compensation.

A copy of the proposed rules is attached. Copies of the proposed rules are available and one free copy may be obtained by writing to the Minnesota Department of Transportation, Attention Robert Bissonnette, St. Paul Downtown Airport, St. Paul, Minnesota 55111. The proposed rules will also be available at the door on the date of the hearing.

All interested or affected persons will have an opportunity to participate in the hearing. Statements may be made orally and written materials may be submitted. In addition, whether or not an appearance is made, written statements or materials may be submitted by mail to Mr. Harry Seymour Crump, Hearing Examiner, Office of Hearing Examiners, 1745 University Avenue, Saint Paul, Minnesota 55104 (Phone: 612-296-8111) either before the hearing, or within five (5) working days after the close of the hearing, or for a longer period not to exceed twenty (20) calendar days, if so ordered by the Hearing Examiner.

Notice is hereby given that twenty-five (25) days prior to the hearing, a Statement of Need and Reasonableness will be available for review at the address of the Department of Transportation given above, and at the Office of Hearing Examiners. The Statement of Need and Reasonableness contains substance of the evidence and will be presented at the hearing justifying both the need for and reasonableness of the proposed rules. It is recommended that the public obtain and read the Statement of Need and Reasonableness prior to the hearing. Copies of the Statement of Need and Reasonableness may be obtained from the Office of Hearing Examiners at a minimal charge.

Please be advised that a lobbyist must register with the State Ethical Practices Board within five (5) days after he or

she commences lobbying. A lobbyist is defined by Minn. Stat. § 10A.01, subd. 11, as any individual who is:

A. Engaged for pay or other consideration, or authorized by another individual or association to spend money, who spends more than five hours in any month, or more than $250, not including travel expenses and membership dues, in any year, for the purpose of attempting to influence legislative or administrative action by communicating or urging others to communicate with public officials; or

B. Spends more than $250, not including travel expenses and membership dues, in any year, for the purpose of attempting to influence legislative or administrative action by communicating or urging others to communicate with public officials.

A lobbyist does not include any:

A. Public official or employee of the state or any of its political subdivisions or public bodies acting in his official capacity;

B. Party or his representative appearing in a proceeding before a state board, commission or agency of the executive branch unless the board, commission or agency is taking administrative action;

C. Individual while engaged in selling goods or services to be paid for by public funds;

D. News media or their employees or agents while engaged in the publishing or broadcasting of news items, editorial comments or paid advertisements which directly or indirectly urge official action;

E. Paid expert witness whose testimony is requested by the body before which he is appearing but only to the extent of preparing or delivering testimony; or

F. Stockholder of a family farm corporation as defined in § 500.24, subd. 1, who does not spend over $250, excluding his own travel expenses in any year in communicating with public officials.

Questions should be addressed to the State Ethical Practices Board, Room 41, State Office Building, Wabasha Street, Saint Paul, Minnesota 55155 (Telephone: 612-296-5615).

Notice: Any person may request a notification of the date on which the Hearing Examiner's Report will be available, after which date the Department of Transportation may not take any final action on the rules for a period of five working days. Any person may request notification of the date on which the hearing record has been submitted (or resubmitted) to the Attorney General by the Department of Transportation. If you desire to be so notified, you may so indicate at the hearing. After the hearing, you may request notification by sending a written request to the Hearing Examiner (in case of the Hearing Examiner's Report), or to the Department representative listed above (in case of the Department's submission or resubmission to the Attorney General).

October 9, 1979

Richard P. Braun
Commissioner of Transportation

Rules as Proposed

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14 MCAR § 1.3001 Definitions.

~~A. Aerobatic flight. Maneuvers intentionally performed that exceed a bank of 60 degrees relative to the horizon or a nose up or down altitude of 30 degrees relative to the horizon.~~

A. Aeronautics instructor. Any individual engaged in giving instruction or offering to give instruction in aeronautics either in flying or ground subjects, or both, for hire or compensation, without advertising such occupation, without calling facilities an "air school" or anything equivalent thereto, and without employing or using other instructors and without operating an aircraft for compensation or hire for the purpose of flight instruction.

B. Airport. An area of land or water that is used or intended to be used for the landing and takeoff of aircraft, and includes its buildings and facilities, if any.

C. Airport elevation. The established elevation of the highest point on the usable landing area measured in feet above mean sea level.

D. Airport hazard. Any structure or tree or use of land which obstructs the airspace required for, or is otherwise hazardous to, the flight of aircraft in landing or taking off at the airport, and any use of land which is hazardous to persons or property because of its proximity to the airport.

~~E. Air Traffic. Aircraft operating in the air or on an airport surface, exclusive of loading ramps and parking areas.~~

~~F. Air traffic control. A service operated by appropriate authority to promote the safe, orderly, and expeditious flow of air traffic.~~

~~G. Air traffic clearance. Authorization by air traffic control for the purpose of preventing collision between known aircraft, for an aircraft to proceed under specified traffic conditions within controlled airspace.~~

~~H. Anchor light. A white light installed so as to be visible in all directions for at least three miles at night under clear atmospheric conditions.~~

~~I. Autorotation. An rotorcraft flight condition in which the lifting rotor is driven entirely by the action of the air when the rotorcraft is in motion.~~

E. ATCO (Air Taxi/Commercial Operator) certificate. A certificate issued by the Federal Aviation Administration that entitles the holder to conduct charter operations according to the operating specifications in the certificate.

F. ~~J.~~ Balloon. A lighter-than-air aircraft that is not engine driven.

~~K. Ceiling. The height above the ground or water of the lowest layer of clouds or obscuring phenomena reported as "broken," "overcast," or "obscuration," and not classified as "thin" or "partial."~~

~~L. Controlled airspace. Airspace designated as a continental control area, control area, control zone, terminal control area, or transition area, within which some or all aircraft may be subject to air traffic control.~~

~~M. Crew member. A person assigned to perform duty in an aircraft during flight time.~~

G. Edge marker. An object or device clearly visible from traffic pattern altitude under normal conditions during daylight hours, which is used to outline the perimeter of a landing area.

H. CAB (Civil Aeronautics Board). The agency of the federal government that has regulatory authority over scheduled supplemental and charter air carriers providing air transportation.

I. Commissioner. Any reference to the term "Commissioner" in these rules shall mean the Commissioner of the Minnesota Department of Transportation.

J. Drop zone. That area of land or water on which a parachutist should reasonably expect to land.

K. ~~N.~~ Dwelling. Any building or portion thereof designed or used as a residence or sleeping place of one or more persons.

L. ~~O.~~ FAA. The capital letters "FAA" shall mean the Federal Aviation Administration of the United States.

M. ~~P.~~ Flight instructor. A pilot who possesses a valid flight instructor's rating as issued by the FAA.

~~Q. Flight visibility. The average forward horizontal distance from the cockpit of an aircraft in flight at which prominent unlighted objects may be seen and identified by day and prominent lighted objects may be seen and identified by night.~~

N. ~~R.~~ Glider. A heavier-than-air aircraft that is supported in flight by the dynamic reaction of the air against its lifting surfaces and whose free flight does not depend principally on an engine.

O. Gradient. The angular degree, from horizontal, of an ascending or descending uniformily smooth slope. With regard to runways:

1. Transverse gradient refers to the degree of slope across the width of the runway, and

2. Longitudinal gradient refers to the degree of slope along the length of the runway.

P. ~~S.~~ Height. For the purpose of determining the height limits set forth in these ~~regulations~~ rules, the datum shall be mean sea level elevation as determined by U.S. Geological Survey.

Q. ~~T.~~ Helicopter. A rotorcraft, that for its horizontal motion, depends principally on its engine-driven rotors.

R. ~~U.~~ IFR. The symbol used to designate instrument flight rules.

~~V. Key system airport. Airports having a paved and lighted runway over 5,000 feet in length, capable of accommodating heavy, multi-engine aircraft as well as most of the corporate jet fleet.~~

~~W. Intermediate system airport. Airports having a paved and lighted runway less than 5,000 feet in length, capable of accommodating all single engine and most twin engine aircraft as well as some light jet aircraft.~~

~~X. Landing strip system airport. Airports with turf runways capable of accommodating single engine and light twin engine aircraft.~~

S. ~~Y.~~ Letter of authority. "Letter of authority" shall be included in the term "license" as used herein.

T. ~~Z.~~ Night. The time between the end of evening civil twilight and the beginning of morning civil twilight, as published in the American Air Almanac, converted to local time.

U. ~~AA.~~ Nonprecision instrument runway. A runway having an existing or planned straight-in instrument approach procedure utilizing air navigation facilities planned or indicated on an approved planning document.

V. Parachute. A device used or intended to be used to retard the fall of a body or object through the air.

W. ~~BB.~~ Passenger. An occupant of ~~the~~ an aircraft ~~in flight other than a crew member.~~ who is not assigned to perform duty necessary for operating the aircraft.

X. ~~CC.~~ Person. The term "person" when used herein shall include ~~A~~ an individual, firm, partnership, corporation, company, association, joint stock association or body politic and includes a trustee, receiver, assignee, administrator, executor, guardian or other representative.

~~DD. Pilot in command. The pilot responsible for the operation and safety of an aircraft, during flight time.~~

Y. ~~EE.~~ Planned. As used in these ~~regulations~~ rules, refers only to those proposed future airport developments that are so indicated on a planning document having the approval of the Commissioner.

Z. ~~FF.~~ Precision instrument runway. A runway having an existing instrument approach procedure utilizing an Instrument Landing System (ILS), a Microwave Landing System (MLS), or a Precision Approach Radar (PAR). Also, a runway for which a precision instrument approach system is planned and is so indicated on an approved planning document.

AA. ~~GG.~~ Rotorcraft. A heavier-than-air aircraft that depends principally for its support in flight on the lift generated by one or more rotors.

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BB. ~~HH.~~ Runway. Any existing or planned paved surface or turf covered area of the airport which is specifically designated and used or planned to be used for the landing and taking off of aircraft.

~~II. Second in command. A pilot who is designated to be second in command of an aircraft during flight time.~~

CC. ~~JJ.~~ Slope. An incline from the horizontal expressed in an arithmetic ratio of horizontal magnitude to vertical magnitude.

DD. ~~KK.~~ Structure. An object constructed or installed by man, including, but without limitations, buildings, towers, smokestacks, earth formations and overhead transmission lines.

EE. ~~LL.~~ Sunset and sunrise. The mean solar times of sunset and sunrise as published in the American Air Almanac, converted to local time.

~~MM. To pilot. To be in command of an aircraft during takeoff, in flight, landing, or on the ground.~~

FF. ~~NN.~~ Traffic pattern. The traffic flow that is prescribed for aircraft landing at, taxiing on, or taking off from an airport.

GG. Traverse ways. Roads, railroads, trails, waterways, or any other avenue of surface transportation.

HH. ~~OO.~~ Tree. Any object of natural growth.

II. ~~PP.~~ Utility runway. A runway that is constructed for and intended to be used by ~~propeller driven~~ aircraft of 12,500 pounds maximum gross weight and less.

JJ. ~~QQ.~~ VFR. The symbol used to designate visual flight rules.

KK. ~~RR.~~ Visual runway. A runway intended solely for the operation of aircraft using visual approach procedures, with no straight-in instrument approach procedure and no instrument designation indicated on an approved planning document.

LL. ~~SS.~~ Water surfaces. For the purpose of these ~~regulations~~ rules, water surfaces shall have the same meaning as land.

14 MCAR § 1.3002 Procedural ~~regulations~~ rules as to structure heights.

A. When a permit is required under Minn. Stat. §§ 360.81-360.91, and amendments made subsequent hereto, application shall be made to the Commissioner on a form furnished by him.

B. The Commissioner shall make such investigation as may be necessary.

C. Any person interested in the granting or denial of a permit may intervene in the matter of the application. A person desiring intervention shall notify the Commissioner of his interest. Such notification shall be in writing.

D. Before issuing or denying a permit, the Commissioner may request an informal appearance of the applicant or any person who has intervened in the matter of the application.

E. All hearings, notices, orders, and other procedural ~~regulations~~ rules regarding this subject shall be in accordance with Chapters 360 and 15 of the Minn. Stat., these ~~regulations~~ rules, and any other applicable law.

14 MCAR § 1.3003 Hearings in contested cases.

A. This ~~regulation~~ rule does not include hearings in rule making and is supplementary to statutory provisions concerning the subject of contested cases.

B. Hearings in contested cases shall be in conformance with Chapters 360 and 15 of the Minn. Stat. and in conformance with the "Rules for Contested Cases" then in effect as promulgated by the Office of the Attorney General of the State of Minnesota.

14 MCAR § 1.3004 Taxation of converted military aircraft.

When a military aircraft is purchased for civilian use and enters the State of Minnesota, it will be given a base value for taxation purposes according to its age, condition, weight, and performance characteristics. ~~These valuations are established in the table of valuations kept in the Department of Transportation.~~

14 MCAR § 1.3005 Applications for state and federal aid.

A. The Commissioner will make a substantive decision as to merit or necessity of each project and project application. A substantial aeronautical requirement must be shown by the municipality whereby the contemplated or existing airport is a necessary part of a system of public airports adequate to meet the present and anticipated needs of civil aviation in Minnesota.

B. The airport must be able to handle air traffic safely and adequately. The public interest and aeronautical progress of the state must be reflected in each project and project application.

C. The municipality must show that sufficient funds are available for that portion of the project costs to be borne by the municipality and that the project will be completed without undue delay, and that the municipality submitting the project application has legal authority to engage in the development as proposed.

Chapter Two: §§ 1.3006-1.3016 Airport Licensing, Airport Zoning, Obstructions to Air Navigation

14 MCAR § 1.3006 General provisions for airport licensing.

A. Airport. The term "airport" as used herein shall also include seaplane bases, heliports, and all other designated ~~landing~~ areas.

B. ~~Licensing procedure.~~ License. Every airport, before operating as such, shall be approved and licensed by the Commissioner. (Airports owned or operated by public corporations formed pursuant to the Metropolitan Airports Commission Act need not be licensed.)

1. Application. Application for license shall be made on forms supplied by the Commissioner and accompanied by the appropriate fee and renewed annually.

Type of License	Fee	~~Renewal~~
Public Airport (privately or publicly owned)	$5.00	~~Annually~~
Private~~ly owned Commercial~~ Airport (restricted use)	$5.00	~~Annually~~
Personal-use Airport	None	~~Annually~~

2. Inspection. The applicant for any license shall offer full cooperation in respect to any inspection which may be made of the airport premises upon proper demand at reasonable hours by any authorized representative of the Commissioner, prior to or subsequent to the issuance of a license.

3. Ownership. The applicant shall show that he has right of access to and control of the land, or right of access to the water area to be licensed, as owner, co-owner, tenant, or by any other right of entry.

4. Agency approvals. No airport shall be licensed ~~until~~ unless the applicant ~~has submitted evidence of the following agency approvals.~~ meets the requirements of other federal or state government agencies or their political subdivisions.

~~a. Federal Aviation Administration airspace determination.~~

~~b. Approval of the Metropolitan Airports Commission for any airport located within the metropolitan area, or within 35 miles of the city hall of either Minneapolis or St. Paul.~~

~~c. Permits and approvals that may be required of local governmental agencies.~~

C. Restricted operation. A letter of authority granting temporary or restricted operation may be issued pending full compliance with the provisions of these rules ~~and regulations~~ and shall have an expiration date.

D. License display. The license issued under this section shall be posted in a prominent place at the airport.

E. Nontransferability. Licenses shall not be transferable.

F. Alteration or change of operational status. The licensee shall immediately notify the Commissioner of any proposed construction, alteration, or change in the operational status of the airport. The licensee is also responsible for properly notifying the Federal Aviation Administration of such alterations or changes.

G. Danger area or closed airport. Any part of the landing strip or runway which has become temporarily unsafe, or for any reason is not available for use, shall be marked by suitable warning flags and/or flares which shall clearly show the boundaries of the danger area. Upon the closing, abandonment or cessation of any airport, the licensee shall immediately notify the Commissioner, return the current license, and mark the landing area in a manner that clearly indicates that the airport is closed to air traffic. All markings indicating a usable runway must be obliterated. An "X" must be placed at a central location, the minimum size to be 3' x 30', and of contrasting colors to the surrounding surface where the "X" is placed. In the event that the licensee fails to do the above, then and in such case, and without excusing the licensee, the Commissioner may go upon the premises and remove the markings that indicate a usable runway and may also mark the airport as indicated above.

H. Exceptions. In any case where it is determined that the public interest and safety will not be adversely affected, the Commissioner may waive any of the requirements stated in 14 MCAR §§ 1.3006-1.3016 subject to such conditions or limitations as may be necessary. Conversely, where it is determined that the public interest and safety will be adversely affected, the Commissioner may deny the issuance of a license, despite compliance with ~~regulations~~ rules herein.

~~14 MCAR § 1.3007 Reserved for future use.~~

14 MCAR § 1.3007 ~~§ 1.3008~~ Licensing of a public airport.

A. Public airport. A public airport is any airport, whether privately or publicly owned, the public use of which for aeronautical purposes is invited, permitted, or tolerated by the owner or person having right of access and control. The requirements of this section do not apply to the licensing of public seaplane bases or public heliports. Specific requirements for the licensing of a public seaplane base are found in 14 MCAR ~~§ 1.3012.~~ § 1.3008. Specific requirements for the licensing of a public heliport are found in 14 MCAR ~~§ 1.3014.~~ § 1.3009.

B. Requirements. A public airport shall be granted a license when it has shown that it has met the general provisions of 14 MCAR § 1.3006 and the following minimum requirements:

~~1. Size. Minimum usable lengths and widths of turf landing strips constructed before July 1, 1958, have been permitted, if they were 2,000 feet long and 150 feet wide. All such minimum turf landing strips prior to July 1, 1976, must be improved so that they have at least one landing strip with a minimum usable length of 2,500 feet and width of 150 feet. No turf landing strip licenses will be renewed after July 1, 1976, unless they have reached the minimum usable length of 2,500 feet and a width of 150 feet by that date. New turf landing~~

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~~strips constructed after July 1, 1958, shall have minimum usable lengths and widths of 2,500 feet long and 150 feet wide.~~

1. Size. At least one runway with a minimum length of 2,500 feet. The minimum width of a turf runway shall be 75 feet. The minimum width of a hard-surfaced runway shall be 60 feet. All runway widths shall include an area 75 feet either side of the runway centerline which is clear of all obstructions as defined in 14 MCAR § 1.3015 that are or may create an airport hazard.

2. Surface. The ~~effective~~ landing surface shall be smooth and free from hazards or obstructions. ~~The longitudinal gradient on any part of the landing area shall not exceed 2%. The transverse gradient shall not exceed 3%.~~

a. The longitudinal gradient on any part of the landing area shall not exceed 2%.

b. The transverse gradient shall not exceed 3%.

c. In addition, runway grade changes should be such that any two points 5 feet above the runway centerline will be mutually visible for the entire runway length.

3. Obstructions. The minimum obstruction clearance ~~for licensing~~ requires that no structure, tree or mobile object which creates a hazard, other than those necessary and incidental to airport operation, ~~and no tree~~ shall penetrate the imaginary airspace surfaces described in 14 MCAR § ~~1.3009~~ § 1.3015, paragraphs E.1., E.4., and E.5. The standards of this section shall also apply to traverse ways only after their heights have been increased as described in 14 MCAR § ~~1.3009 B.~~ § 1.3015 B.

4. Edge markers. ~~The landing strips or areas~~ Turf runways shall be outlined with effective edge markers which shall be constructed and installed in a manner approved by the Commissioner.

5. Buildings. Buildings and structures on a public airport shall not be closer than 250' to the centerline of the runway. For height limitations see 14 MCAR § ~~1.3009 E.~~ § 1.3015 E.

6. Wind indicator. All public airports shall be equipped with a wind ~~cone~~ sock, 3' x 12', blaze orange in color, or other indicator as approved by the Commissioner, which must be operable and clearly visible from the pattern altitude when within one mile of the airport during daylight hours. If the airport is lighted for night operations, the wind indicator must also be lighted.

7. Fencing. Such adequate fencing or barriers shall be constructed as will prevent all persons not engaged in flight activities from having access to a position of danger with relation to aircraft in the vicinity of building areas and on the flight line.

8. Lighting. If the airport is lighted for night operations and is advertised as lighted for night operations, the lights shall be kept on from dusk to dawn. ~~The wind indicator, in this case, must also be lighted as approved by the Commissioner.~~ Any object in the approach zone of a lighted visual utility runway that extends above a slope of 30:1 shall be marked and lighted in accordance with the standards for obstruction marking and lighting where requested by the Commissioner in the interest of safety.

9. Tiedowns. Facilities must be furnished for at least three more aircraft than regularly use the facilities. The tiedowns are to be marked and maintained so as to be readily located ~~and shall not protrude above the surface.~~

10. Toilets. A sanitary public toilet facility shall be provided at all public airports~~.~~, except where it can be demonstrated that it is impracticable to install such a facility. An enclosed portable chemical toilet, properly maintained and serviced, shall be acceptable.

11. Aviation fuel. All aviation fuel dispensed on any airport shall be filtered to be free of solid matter in excess of 5 microns particle size and to have a free water content less than 30 parts per million parts of fuel.

12. Fire extinguishers. At least one properly maintained fire extinguisher shall be available in the vicinity of the fuel pump or on the flight line if fuel is dispensed. It must be a minimum of 10 pounds of carbon dioxide or equivalent.

13. Telephone. When feasible, a telephone shall be made available for public use. Telephone numbers for the appropriate Flight Service Station, for emergency assistance, and for aircraft servicing shall be prominently posted.

14. Bulletin board. A weather-protected bulletin board shall be prominently located on the airport. Posted thereon shall be the airport license, safety and traffic rules, and an area map showing danger or restricted areas.

14 MCAR § 1.3008 ~~§ 1.3012~~ Licensing of a public seaplane base.

A. Public seaplane base. A public seaplane base shall mean any seaplane base, whether privately- or publicly-owned, the public use of which for aeronautical purposes is invited, permitted, or tolerated by the operator or the person having right of access and control. ~~A public seaplane base will be granted a license when it is shown that it has met the general provisions of 14 MCAR § 1.3006 and the minimum requirements stated herein.~~

B. Operation. In case the body of water to be used for landing and taking off is under the jurisdiction of any federal, state, municipal port or other authority, the operations on such body of water shall be in conformity with the marine traffic rules and regulations of such authority, ~~if such rules and regulations~~ to the extent that such rules and regulations do not interfere with the safe operations of aircraft.

C. Separate licenses. The license issued to a seaplane base shall apply to the land area from which operations are conducted ~~and to the water area designated for its operations~~. Where two or more bases located on the same body of water are under different ownership or control, each base shall obtain a separate seaplane base license.

D. Use. The use of such body of water for aeronautical purposes shall in no way impair or deny the right of the public to the use of these public waters.

~~E. Construction or alteration of shoreline. The applicant shall show that any construction or alteration of shoreline on the land area of the base is in conformity with the regulations of the Minnesota Department of Natural Resources, Division of Waters, Soils and Minerals, and with municipal building and other pertinent regulations, if applicable.~~

E. Requirements. A public seaplane base shall be granted a license when it has shown it has met the general provisions of 14 MCAR § 1.3006 and the following minimum requirements:

1. ~~F.~~ Size. The body of water shall have a minimum ~~effective~~ usable length of at least one mile and shall be of sufficient width and depth to permit the safe operation of aircraft on the surface. All approaches to the landing area shall be sufficiently clear of obstructions to permit a 20:1 glide angle to the nearest point of the usable landing area, provided that if any structure on the land is located within 300 feet of the centerline of the approach path, such glide angle shall be computed so as to provide a clearance of least 100 feet above such structure.

2. ~~G.~~ Boundary markers. The outline of that part of the area available for landing, ~~and~~ takeoff and ~~for~~ taxiing when required in the interest of safety, shall be marked ~~in a manner approved by the Commissioner or as may be required by the marine traffic rules and regulations of the authority having jurisdiction~~. All hazards, including underwater obstructions in the landing, approach, departure and taxi areas, shall be marked. All markers shall be constructed and displayed in a manner approved by the Commissioner.

~~H. Hazards. All hazards in the approach or landing area, including underwater obstructions, shall be marked in a manner approved by the Commissioner. If the base is engaged in night operations, such hazards shall be clearly marked with lights during the period of sunset to sunrise.~~

3. ~~I.~~ Wind indicator. Each public seaplane base shall be equipped with a wind ~~cone~~ sock 3' x 12', blaze orange in color, or other wind indicator approved by the Commissioner, which must be operable and clearly visible from the pattern altitude when within one mile of the seaplane base during daylight hours. If night operations are conducted at the base, the wind ~~cone~~ sock must be lighted.

~~J. Minimum public seaplane base facilities. Every public seaplane base shall have as a minimum the following facilities.~~

4. ~~1.~~ Dock. A dock or float, suitable for the loading and unloading of seaplanes, shall be so located as to afford the maximum degree of operational safety ~~in taxiing approach~~.

5. ~~2.~~ Ramp. A ramp, or equivalent substitute, for beaching of aircraft, shall be provided. Tie-down or storage area shall be so arranged that the ramp is normally clear for the beaching of incoming aircraft.

6. ~~3.~~ Toilets. A sanitary public facility shall be provided at all public seaplane bases, except where it can be demonstrated that it is impracticable to install such facility. An enclosed portable chemical toilet, properly maintained and serviced, shall be acceptable.

7. ~~4.~~ Telephone. When feasible, a telephone ~~shall~~ should be made available for public use. Telephone numbers for the appropriate Flight Service Station, for emergency assistance, and for aircraft servicing ~~shall~~ will be prominently posted.

8. ~~5.~~ Bulletin board. A weather-protected bulletin board shall be prominently located on the seaplane base. Posted thereon shall be the seaplane base license, safety and traffic rules, and an area map showing danger or restricted areas.

9. ~~6.~~ Beaching or mooring. Beaching or mooring facilities must be provided for at least three more seaplanes than regularly use the facilities.

~~K. Minimum public seaplane base safety equipment. Every public seaplane base shall have as a minimum the following safety equipment.~~

10. ~~1.~~ Life preserver. At least one life preserver ~~of the ring or throw type with sufficient line attached~~ shall be immediately available ~~on the ramp or dock or in the emergency boat~~ for use at all times.

11. ~~2.~~ Boat. A boat and operable motor shall be immediately available for use at all times that flights are in progress.

12. ~~3.~~ Lines. An adequate supply of lines for heaving, towing, securing and rescue operations shall be kept available.

13. ~~4.~~ Fuel filters. All aviation fuel dispensed at a public seaplane base shall be filtered to be free of solid matter in excess of 5 microns particle size and to have a free water content less than 30 parts per million parts of fuel.

14. ~~5.~~ Fire extinguishers. At least one properly maintained fire extinguisher shall be available in the vicinity of the fuel pump or at the ramp or dock. It must be a minimum of ten pounds of carbon dioxide, or equivalent.

14 MCAR § 1.3009 ~~§ 1.3014~~ Licensing of a public heliport.

A. Public heliport. A public heliport ~~shall mean~~ is any heliport, whether privately or publicly owned, the public use of which for aeronautical purposes is invited, permitted, or

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tolerated by the owner or person having right of access and control. ~~A public heliport will be granted a license when it is shown that it has met the general provisions of 14 MCAR § 1.3006 and the minimum requirements stated herein.~~

B. Requirements. A public heliport shall be granted a license when it has met the general provisions of 14 MCAR § 1.3006 and the following minimum requirements:

1. ~~B.~~ Landing and takeoff area. That specific area in which the helicopter actually lands and takes off, including the touchdown area. The minimum landing and takeoff area length shall be 2.0 times the overall length of the largest helicopter expected to use the heliport, and the width of the area shall be 1.5 times the overall length of the largest helicopter expected to use the heliport.

2. ~~C.~~ Touchdown area. ~~The dimensions of the touchdown area~~ The minimum length and width of the touchdown area shall be equal to the rotor diameter of the largest helicopter expected to use the heliport.

3. ~~D.~~ Peripheral area. A peripheral area surrounding the landing and takeoff area, with a minimum width of one-quarter the overall length of the largest helicopter expected to use the heliport, but not less than 10 feet, is recommended as an obstruction-free safety zone.

4. ~~E.~~ Obstructions. ~~Criteria for determining obstructions to public heliports are set forth in 14 MCAR § 1.3009 F.~~ An object will be considered an obstruction to a public heliport if it is of greater height than any of the following heliport imaginary surfaces.

a. Heliport primary surface. The primary surface of a heliport coincides in size and shape with the designated takeoff and landing area. This surface is a horizontal plane at the elevation of the established heliport elevation.

b. Heliport approach surface. The heliport approach surface begins at each end of the primary surface, with the same width as the primary surface and extends outward and upward at a slope of 8:1 for a horizontal distance of 4,000 feet where its width is 500 feet.

c. Heliport transitional surface. The heliport transitional surfaces extend outward and upward from the lateral boundaries of the primary surface and from the approach surfaces at a slope of 2:1 for a distance of 250 feet measured horizontally from the centerline of the primary and approach surfaces.

5. ~~F.~~ Approach-departure paths. Approach-departure paths are selected to provide the most advantageous lines of flight to and from the landing and takeoff area. These paths begin at the edge of the landing and takeoff area and should be aligned as directly as possible into the prevailing winds.

a. ~~1.~~ Approach-departure paths coincide in size with the imaginary surfaces described in ~~14 MCAR § 1.3009 F.~~ B. 4. above, except that an approach-departure path may be curved.

(1) ~~a.~~ If the approach-departure path is curved, its centerline must have a turning radius of not less than 700 feet.

(2) ~~b.~~ If the approach-departure path is curved, the curved portion of the path must begin at a distance not less than 300 feet from the landing and takeoff area.

b. ~~2.~~ A public heliport must have at least two approach-departure paths which must be separated by an arc of at least 90 degrees. These two paths must be obstruction-free.

c. ~~3.~~ Emergency landing areas must be available along the approach-departure paths.

6. ~~G.~~ Fuel filters. All aviation fuel dispensed on any public heliport shall be filtered to be free of solid matter in excess of 5 microns particle size and to have a free water content of less than 30 parts per million parts of fuel.

7. ~~H.~~ Fire extinguishers. At least one properly maintained fire extinguisher shall be available. It must be a minimum of ten pounds of carbon dioxide or its equivalent.

8. ~~I.~~ Wind indicator. All public heliports shall be equipped with ~~a~~ an operable wind ~~cone~~ sock, 3' x 12' blaze orange in color, or other indicator as approved by the Commissioner. ~~which must be clearly visible from pattern altitude.~~ If the heliport is lighted for night operations, the wind indicator must also be lighted.

9. ~~J.~~ Safety barriers. Access to the landing and takeoff area and the peripheral area, if any, shall be fenced or protected to keep unauthorized persons out of these areas. Suitable placards warning of the dangers of turning rotors shall be prominently displayed in pedestrian access areas. If a fence is used, it shall not penetrate the heliport imaginary surfaces described in ~~14 MCAR § 1.3009 F.~~ B.4. above.

10. ~~K.~~ Rooftop egress. Rooftop heliports should have two exits, one at each side of the landing and takeoff area, which should be provided in accordance with local building codes.

C. ~~L.~~ Applicability. The regulations contained in ~~14 MCAR § 1.3014 D., E., and F.~~ B.3., 4., and 5. above, are predicated upon VFR operations by helicopters certificated in the normal category. The Commissioner may set additional requirements for heliports which will conduct IFR operations and/or operations by transport category heliports.

14 MCAR § 1.3010 ~~§ 1.30085~~ Licensing of a ~~privately-owned commercial~~ airport.

A. ~~Privately-owned commercial~~ airport. A ~~privately-owned commercial~~ airport is a restricted airport ~~used for commercial purposes~~. The persons who may use the airport are determined by the owner of the airport. The private airport shall not be held out for public use nor shall it be displayed on aeronautical charts except as a restricted facility.

~~B. A privately owned commercial airport will be granted a license when it has shown that it has met the general provisions of 14 MCAR § 1.3006 and the minimum requirements of 14 MCAR § 1.3008 B.1. 6., 11., and 12.~~

B. Requirements. A private airport shall be granted a license when it has met the general provisions of 14 MCAR § 1.3006 and the following minimum requirements.

1. Size. At least one runway with a minimum length of 2,000 feet. The minimum width of a turf runway shall be 75 feet. The minimum width of a hard-surfaced runway shall be 60 feet. All runway widths shall include an area 75 feet either side of the runway centerline which is clear of all obstructions as defined in 14 MCAR § 1.3015 that are or may create an airport hazard.

2. Surface. The landing surface shall be smooth and free from hazards or obstructions.

3. Obstructions. The minimum obstruction clearance requires that no structure, tree or mobile object which creates a hazard, other than those necessary and incidental to airport operation, shall penetrate the imaginary airspace surfaces described below:

a. Primary surface. An imaginary surface longitudinally centered on a runway and:

(1) At same elevation as the elevation of the nearest point on the runway centerline.

(2) Extending to the ends of each runway.

(3) The width of the primary surface is 200 feet.

b. Approach surface. An imaginary surface longitudinally centered on the extended centerline at each end of a runway. The inner edge of the approach surface is at the same width and elevation as, and coincides with, the end of the primary surface. The approach surface inclines upward and outward at a slope of:

(1) 20:1 for a horizontal distance of 10,000 feet.

(2) Expanding uniformly to a width of 2,250 feet.

4. Edge markers. Turf runways shall be outlined with effective edge markers which shall be constructed and installed in a manner approved by the Commissioner.

5. Wind indicator. All private airports shall be equipped with a wind sock or other approved wind indicator.

6. Aviation fuel. All aviation fuel dispensed for sale shall be filtered to be free of solid matter in excess of 5 microns particle size and to have a free water content less than 30 parts per million parts of fuel.

7. Fire extinguishers. At least one properly maintained fire extinguisher shall be available in the vicinity of the fuel pump or on the flight line if fuel is dispensed for sale. It must be a minimum of 10 pounds of carbon dioxide or equivalent.

~~C. A privately owned commercial airport may be used to satisfy the public airport requirements of 14 MCAR § 1.3017.~~

C. Hazards. A "private airport" shall not impose undue hazards upon adjoining property or its occupants or endanger the user or use of existing surface transportation or power and communication transmission lines.

~~D. A privately owned commercial airport shall not be displayed on any chart for public distribution.~~

D. Use. A private airport may be used for limited commercial operations as provided for in 14 MCAR § 1.3019.

~~14 MCAR § 1.3011 Reserved for future use.~~

14 MCAR § 1.3011 ~~§ 1.30125~~ Licensing of a ~~privately owned commercial~~ seaplane base.

A. Private~~ly owned commercial~~ seaplane base. A private~~ly owned commercial~~ seaplane base is a restricted seaplane base ~~used for commercial purposes.~~ The persons who may use ~~the~~ this seaplane base ~~land area~~ are ~~to be~~ determined by ~~the~~ its owner ~~of the base~~. The private seaplane base shall not be held out for public use nor shall it be displayed on aeronautical charts except as a restricted facility.

B. Requirements. A private~~ly owned commercial~~ seaplane base will be granted a license when it ~~is~~ has shown that it has met the following minimum requirements ~~of MCAR § 1.3012 B., 1., and K.1., 3., 4., 5.~~

1. Operation. In case the body of water to be used for landing and taking off is under the jurisdiction of any federal, state, municipal port or other authority, the operations on such body of water shall be in conformity with the marine traffic rules and regulations of such authority, to the extent such rules and regulations do not interfere with the safe operation of aircraft.

2. Separate licenses. The license issued to a seaplane base shall apply to the land area from which operations are conducted. Where two or more bases located on the same body of water are under different ownership or control, each base shall obtain a separate seaplane base license.

3. Use. The use of such body of water for aeronautical purposes shall in no way impair or deny the right of the public to the use of public waters.

4. Size. The body of water shall be of sufficient length, width and depth to permit safe operation by the aircraft intended to use it. The approaches to the landing area shall be sufficiently clear of obstructions to permit a 20:1 glide angle to the nearest point of the usable landing area, provided that if any structure on the land is located within 300 feet of the centerline of the approach path, such glide angle shall be computed so as to provide a clearance of at least 100 feet above such structure.

5. Markers. All hazards in the approach or landing area, including underwater obstructions, shall be marked.

6. Wind indicator. All private seaplane bases shall be equipped with a wind sock or other wind indicator.

7. Fuel filters. All aviation fuel dispensed for sale shall be filtered to be free of solid matter in excess of 5 microns particle size and to have a free water content less than 30 parts per million parts of fuel.

8. Fire extinguishers. At least one properly maintained fire extinguisher shall be available in the vicinity of the fuel pump or at the ramp or dock. It must be a minimum of ten pounds of carbon dioxide, or equivalent.

~~C. Use. A privately owned commercial seaplane base may be used to satisfy the public seaplane requirements of 14 MCAR § 1.3017.~~

C. Hazards. A "private seaplane base" shall not impose undue hazards upon adjoining property or its occupants or endanger the user or use of existing surface transportation or power and communication transmission lines.

~~D. Restrictions. A privately owned commercial seaplane base shall not be displayed on any chart for public distribution.~~

D. Use. A private seaplane base may be used for limited commercial operations as provided for in 14 MCAR § 1.3019.

14 MCAR § 1.3012 ~~§ 1.30145~~ Licensing of a ~~privately owned commercial~~ heliport.

A. ~~Privately owned commercial~~ heliport. A ~~privately owned commercial~~ heliport is a restricted heliport ~~used for commercial purposes.~~ The persons who may use ~~the~~ this heliport are ~~to be~~ determined by ~~the~~ its owner ~~of the heliport~~. The private heliport shall not be held out for public use nor shall it be displayed on aeronautical charts except as a restricted facility.

B. ~~Requirements.~~ A ~~privately owned commercial~~ heliport ~~will~~ shall be granted a license when ~~it is shown that~~ it has met the ~~requirements of 14 MCAR § 1.3014~~ general provisions of 14 MCAR § 1.3006 and the following minimum requirements.

1. Landing and takeoff area. That specific area in which the helicopter actually lands and takes off, including the touchdown area. The minimum landing and takeoff area length shall be 2.0 times the overall length of the largest helicopter expected to use the heliport, and the width of the area shall be 1.5 times the overall length of the largest helicopter expected to use the heliport.

2. Touchdown area. The minimum length and width of the touchdown area shall be equal to the rotor diameter of the largest helicopter expected to use the heliport.

3. Peripheral area. A peripheral area surrounding the landing and takeoff area, with a minimum width of one-quarter the overall length of the largest helicopter expected to use the heliport, but not less than 10 feet, is recommended as an obstruction-free safety zone.

4. Obstructions. An object will be considered an obstruction to a private heliport if it is of greater height than any of the following heliport imaginary surfaces.

a. Heliport primary surface. The primary surface of a heliport coincides in size and shape with the designated takeoff and landing area. This surface is a horizontal plane at the elevation of the established heliport elevation.

b. Heliport approach surface. The heliport approach surface begins at each end of the primary surface, with the same width as the primary surface and extends outward and upward at a slope of 8:1 for a horizontal distance of 4,000 feet where its width is 500 feet.

c. Heliport transitional surface. The heliport transitional surfaces extend outward and upward from the lateral boundaries of the primary surface and from the approach surfaces at a slope of 2:1 for a distance of 250 feet measured horizontally from the centerline of the primary and approach surfaces.

5. Approach-departure paths. Approach-departure paths are selected to provide the most advantageous lines of flight to and from the landing and takeoff area. These paths begin at the edge of the landing and takeoff area and should be aligned as directly as possible into the prevailing winds.

a. Approach-departure paths coincide in size with imaginary surfaces described in B.4. above, except that an approach-departure path may be curved.

(1) If the approach-departure path is curved, its centerline must have a turning radius of not less than 700 feet.

(2) If the approach-departure path is curved, the curved portion of the path must begin at a distance not less than 300 feet from the landing and takeoff area.

b. A private heliport must have at least two approach-departure paths which must be separated by an arc of at least 90 degrees. These two paths must be obstruction-free.

c. Adequate emergency landing areas must be available along the approach-departure paths.

6. Fuel filters. All aviation fuel dispensed on any private heliport shall be filtered to be free of solid matter in excess of 5 microns particle size and to have a free water content of less than 30 parts per million parts of fuel.

7. Fire extinguishers. At least one properly maintained fire extinguisher shall be available. It must be a minimum of ten pounds of carbon dioxide or its equivalent.

8. Wind indicator. All private heliports shall be equipped with an operable wind sock, 3′ × 12′ blaze orange in color, or other indicator as approved by the Commissioner. If the heliport is lighted for night operations, the wind indicator must also be lighted.

9. Safety barriers. Access to the landing and takeoff area and the peripheral area, if any, shall be fenced or protected to keep unauthorized persons out of these areas. Suitable placards warning of the dangers of turning rotors shall be

prominently displayed in pedestrian access areas. If a fence is used, it shall not penetrate the heliport imaginary surfaces described in B.4. above.

~~C. Use. A privately owned commercial heliport may be used to satisfy the public airport requirements of 14 MCAR § 1.3017.~~

C. Hazards. A "private heliport" shall not impose undue hazards upon adjoining property or its occupants or endanger the user or use of existing surface transportation or power and communication transmission lines.

~~D. Restrictions. A privately owned commercial heliport shall not be displayed on any chart for public distribution.~~

D. Use. A private heliport may be used for limited commercial operations as provided for in 14 MCAR § 1.3019.

[Portions of the following rule (§ 1.3013) are now found in §§ 1.3017-1.3018.]

~~14 MCAR § 1.3013 Seaplane operations within the seven county metropolitan area.~~

~~A. Scope. 14 MCAR § 1.3013 covers seaplane operations on all public waters within the following counties: Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington.~~

~~B. Lakes upon which seaplane operations are permitted. Seaplane operations are prohibited on all public waters in the seven county area described above except for the following bodies of water upon which seaplane operations are permitted.~~

~~Anoka County~~
~~Centerville Lake~~
~~Clear Lake~~
~~Coon Lake~~
~~George Watch Lake~~
~~Ham Lake~~
~~Howard Lake~~
~~Lake George~~
~~Linwood Lake~~
~~Martin Lake~~
~~Mississippi River~~
~~Mud Lake~~
~~Otter Lake~~
~~Peltier Lake~~
~~Pickerel Lake~~
~~Reshenav Lake~~
~~Rice Lake~~
~~Round Lake~~
~~Carver County~~
~~Goose Lake~~
~~Hazeltine Lake~~
~~Lake Minnewashta~~
~~Lake Pattersen~~
~~Lake Riley~~
~~Lake Waconia~~
~~Lundsten Lake~~
~~Mud Lake~~
~~Oak Lake~~
~~Parley Lake~~
~~Pierson Lake~~
~~Tiger Lake~~
~~Dakota County~~
~~Alimagnet~~
~~Byllesby Reservoir~~
~~Crystal Lake~~
~~Lake Marion~~
~~Mississippi River~~
~~Orchard Lake~~
~~St. Croix River~~
~~Hennepin County~~
~~Bryant Lake~~
~~Diamond Lake~~
~~Eagle Lake~~
~~Fish Lake~~
~~French Lake~~
~~Lake Independence~~
~~Lake Minnetonka, except the following areas:~~
~~Black Lake, Emerald Lake, French Lake, Forest Lake, Gray's Bay, Libb's Lake, Peavy Lake, Seton Lake, Tanager Lake~~
~~Lake Sarah~~
~~Medicine Lake~~
~~Mississippi River~~
~~Schmidt Lake~~
~~Whaletail Lake~~
~~Ramsey County~~
~~Bald Eagle Lake~~
~~Lake Owasso~~
~~Long Lake~~
~~Mississippi River~~
~~Turtle Lake~~
~~White Bear Lake~~
~~Scott County~~
~~Cedar Lake~~
~~Geis Lake~~
~~Pleasant Lake~~
~~Prior Lake East~~
~~Prior Lake West~~
~~Spring Lake~~
~~Washington County~~
~~Big Carnelian Lake~~
~~Big Marine Lake~~
~~Forest Lake~~
~~Lake Elmo~~
~~Mississippi River~~
~~Oneka Lake~~
~~St. Croix River~~

~~C. Further restrictions. All seaplane operations are prohibited from 11 a.m. (CDST) to 6 p.m. (CDST) on Saturdays, Sundays, and national legal holidays between June 1 and September 15 on the following public waters:~~

~~1. Lake Minnetonka and all bays and lakes therein.~~

~~2. White Bear Lake and all bays and lakes therein.~~

~~3. Lake Owasso and all bays and lakes therein.~~

~~However, this restriction contained in C. shall not apply to the holder of a Personal use Seaplane Base License issued under 14 MCAR § 1.3016 while operating to and from his licensed base subject to the following conditions:~~

~~1. Such operations are limited to a maximum of one takeoff and one landing during these restricted hours, and~~

~~2. Such operations are authorized only when lake traffic and use permit such operations to be conducted in a safe and reasonable manner.~~

~~D. Emergency use. Nothing in 14 MCAR § 1.3013 shall be construed to prohibit the landing or taking off of a seaplane in case of a bona fide emergency.~~

~~E. Compliance with marine traffic rules and regulations. All seaplanes must comply with marine traffic rules and regulations if such rules and regulations do not interfere with the safe operation of aircraft.~~

~~F. Ski-equipped aircraft. Notwithstanding anything to the contrary stated within this 14 MCAR § 1.3013, aircraft equipped with either wheels or skis may operate on the lakes set forth in B. above whenever such lakes are frozen if lake traffic and use permit such operations to be conducted in a safe and reasonable manner.~~

KEY: RULES SECTION — Underlining indicates additions to proposed rule language. ~~Strike outs~~ indicate deletions from proposed rule language. **PROPOSED RULES SECTION** — Underlining indicates additions to existing rule language. ~~Strike outs~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated "all new material."

14 MCAR § 1.3013 ~~§ 1.3016~~ Licensing of personal-use ~~landing areas,~~ airports, seaplane bases and heliports.

A. Personal-use ~~landing area~~ airport. A personal-use ~~landing area~~ airport shall mean any landing area on land or water ~~on~~ from which aircraft are, or will be, regularly based or ~~regularly~~ operated ~~from. A license, of one of the three types listed below will be granted when it is shown that it has met the general provisions of 14 MCAR § 1.3006 and the minimum requirements stated herein.~~ There are three types of licenses:

1. Personal-use airport license.

2. Personal-use seaplane base license.

3. Personal-use heliport license.

~~B. Hazards. A personal use landing area shall not impose undue hazards upon adjoining property or its occupants or endanger the users or use of existing communication or transportation.~~

B. Requirements. Personal-use airports shall be granted a license when they have met the general provisions of 14 MCAR § 1.3006 and the following general requirements.

1. Size. A personal-use airport shall be of sufficient length and width and the approaches shall be sufficiently clear of obstructions to permit safe operations by the aircraft intended to use it.

2. Surface. The landing surface shall be smooth and free from hazards or obstructions.

C. Operation. A personal-use ~~landing area~~ airport shall not interfere with the safe operation of any public airport or with the safety of any federal airways.

D. Restrictions. A personal-use ~~landing area~~ airport shall not be operated except in accordance with the restrictions set forth below:

1. A personal-use ~~landing area~~ airport shall not be held out as available for public use, nor shall the public use of a personal-use ~~landing area~~ airport be invited, permitted, or tolerated.

2. A personal-use ~~landing area~~ airport shall not be used ~~as a base of operations for any commercial purposes except for aerial spraying and dusting~~ for commercial activities which include the operation of aircraft for the purpose of carrying passengers, providing air charter, flight instruction, aircraft rental and/or leasing or other operations deemed similar in character by the Commissioner. However, a personal-use airport may be used for commercial activities which include the operation of aircraft for the purpose of aerial spraying and dusting, banner towing, balloon operations, aerial photography, pipeline/powerline patrol or other operations deemed similar by the Commissioner.

3. A personal-use ~~landing area~~ airport shall not be displayed on any chart for public distribution.

~~E. Size. A personal use landing area shall be of sufficient length and width and the approaches shall be sufficiently clear of obstructions to permit safe operations by the aircraft intended to use it.~~

E. Hazards. A personal-use airport shall not impose undue hazards upon adjoining property or its occupants or endanger the user or use of existing surface transportation or power and communication transmission lines.

F. In addition to the general requirements listed heretofore for the licensing of personal-use airports, the following specific requirements must be met before a personal-use airport license can be granted for a personal-use seaplane base or a personal-use heliport:

1. ~~F.~~ Personal-use seaplane base license.

a. A personal-use seaplane base license shall apply to the land area from which operations are conducted ~~and to the water area designated for its operation~~.

b. ~~1.~~ When two or more bases located on the same body of water are under different ownership or control, each base shall obtain a separate personal-use seaplane base license.

c. ~~2.~~ A personal-use seaplane base license will not be granted for those lakes upon which seaplane operations are prohibited by 14 MCAR ~~§ 1.3013~~ § 1.3018.

2. ~~G.~~ Personal-use heliport license. ~~In addition to the above requirements, a personal-use heliport must meet the requirements listed below.~~

a. ~~1.~~ 14 MCAR ~~§ 1.3014 B.,~~ § 1.3009b., except that the landing and takeoff area minimum length and width shall be 1.5 times the overall length of the helicopter expected to use the heliport.

b. ~~2.~~ 14 MCAR ~~§ 1.3014 C., D.~~ § 1.3009 C., D.

c. ~~3.~~ 14 MCAR ~~§ 1.3014 F.,~~ § 1.3009 F., except that a personal-use heliport must have as a minimum one approach-departure path meeting those requirements.

d. ~~4.~~ Safety barrier. Access to the landing and takeoff area and the peripheral area, if any, shall be fenced or protected to keep unauthorized persons out of these areas.

14 MCAR § 1.3014 ~~§ 1.30135~~ Unlicensed landing areas.

A. Unlicensed landing area. An unlicensed landing area shall mean any area of land or water, other than a licensed airport ~~or seaplane base,~~ which is used or is made available for the landing and takeoff of aircraft for the purpose and in the manner described herein. No person shall use or make available such unlicensed landing area except in compliance with the provisions of this section.

B. Temporary operations. Any area of land or water may be used as an unlicensed landing area for temporary operations by the following for the purpose designated:

1. A person holding a private pilot's certificate, or higher rating, for private use for temporary operations.

2. A person, firm or corporation holding a license as a

commercial operator for temporary operations in connection with commercial operations.

C. Requirements for use of unlicensed landing areas. No person shall use or make available the use of an unlicensed landing area except in conformity with the following conditions:

1. Aircraft shall not be stored or regularly based at an unlicensed landing area.

2. The landing area proposed to be used shall be of sufficient length and width and free from obstructions, and the surface shall be in suitable condition to permit the safe operation of the type of aircraft to be used thereon.

3. The aircraft owner or operator shall have the permission of the landowner to use the landing area or any facilities that will be used in his operation for the purpose and time intended.

4. The use of the landing and operating area shall in no way endanger persons or property, and suitable safeguards necessary to protect the safety of passengers and public shall be provided.

5. Where it uses an unlicensed water landing area, the aircraft shall carry an approved type of life preserver for the pilot and each passenger.

D. Hazards. An unlicensed landing area shall not impose undue hazards upon adjoining property or its occupants or endanger the user or use of existing surface transportation or power and communication transmission lines.

~~14 MCAR § 1.3015 Reserved for short takeoff and landing (STOL) area and for vertical takeoff and landing (VTOL) area.~~

14 MCAR § 1.3015 ~~§ 1.3009~~ Criteria for determining obstructions to air navigation. (NOTE: See Minn. Stat. §§ 360.061 *et seq.*, for airport zoning statutes and Minn. Stat. §§ 360.81 *et seq.*, for regulations of structure heights.)

A. Obstruction. An existing object, including a mobile object, is, and a future object would be, an obstruction to air navigation if it is of greater height than any of the heights or surfaces established herein.

B. Traverse ways. Except for traverse ways whose activities are coordinated with adjacent controlled airports, the standards of this section apply only after the heights of traverse ways are increased by:

1. 17 feet for interstate highways.

2. 15 feet for all other public roadways.

3. 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for private roads.

4. 23 feet for railroads.

5. For waterways and all other traverse ways not previously mentioned, an amount equal to the height of the highest mobile object that would normally traverse it.

C. Notification. Any sponsor who proposes any construction or alteration that would exceed a height of 200 feet above ground level at the site, or any construction or alteration of greater height than an imaginary surface extending outward and upward at a slope of 100:1 from the nearest point of the nearest runway of a public airport shall notify the Commissioner at least 30 days in advance.

D. General obstructions. The following objects will be considered general obstructions to air navigation:

1. Objects extending more than 500 feet above ground level at the site of the object.

2. Objects more than 200 feet above the ground or more than 200 feet above the established airport elevation, whichever gives the higher elevation, within three nautical miles of the nearest runway of an airport, and increasing in height in the proportion of 100 feet for each additional nautical mile of distance from the airport but not exceeding a maximum of 500 feet above ground.

3. Objects which would increase the minimum obstruction clearance altitude of a federal airway or approved off-airway route.

4. Objects whose elevation will increase a precision or non-precision instrument approach flight altitude minimum or flight visibility minimum.

E. Obstructions to public airports. An object will be considered an obstruction to a public airport (excluding heliports) if it is of greater height than any of the following airport imaginary surfaces:

1. Primary surface. An imaginary surface longitudinally centered on a runway and:

a. Extending 200 feet beyond each end of a runway with a specially prepared hard surface or planned hard surface; or

b. Coinciding with each end of other runways. The width of the primary surface is:

c. 250 feet for visual utility runways; or

d. 500 feet for nonprecision instrument runways and for visual runways other than utility; or

e. 1,000 feet for precision instrument runways and for nonprecision instrument runways having visibility minimums as low as three-fourths of a statute mile.

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The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline.

2. Horizontal surface. An imaginary horizontal surface with its height 150 feet above the established airport elevation, the perimeter of which is constructed by swinging arcs of specified radii from the center of each end of the primary surface of each runway and connecting the adjacent arcs by lines tangent to those arcs. The radius of each arc is:

a. 10,000 feet for precision instrument runways and for nonprecision instrument runways having visibility minimums as low as three-fourths of a statute mile, or

b. 6,000 feet for all other runways.

When a 6,000-foot arc is encompassed by tangents connecting two adjacent 10,000-foot arcs, the 6,000-foot arc shall be disregarded in the construction of the perimeter of the horizontal surface.

3. Conical surface. An imaginary conical surface extending upward and outward from the periphery of the horizontal surface at a slope of 20:1 for a horizontal distance of 4,000 feet as measured radially outward form the periphery of the horizontal surface.

4. Approach surface. An imaginary surface longitudinally centered on the extended centerline at each end of a runway. The inner edge of the approach surface is at the same width and elevation as, and coincides with, the end of the primary surface. The approach surface inclines upward and outward at a slope of:

a. 20:1 for a horizontal distance of 10,000 feet for visual utility runways; or

b. 40:1 for a horizontal distance of 10,000 feet for nonprecision instrument runways and for all visual runways other than utility.

The approach surface expands uniformly to a width of:

c. 2,250 feet for other visual utility runways (10:1 flare ratio); or

d. 2,500 feet for visual runways other than utility (10:1 flare ratio); or

e. 3,500 feet for nonprecision instrument runways having visibility minimums greater than three-fourths statute mile (20:3 flare ratio); or

f. 4,000 feet for nonprecision instrument runways having visibility minimums as low as three-fourths of a statute mile (20:3 flare ratio).

5. Precision instrument approach surface. An imaginary surface longitudinally centered on the extended centerline at ~~each~~ the end of a precision instrument runway. The inner edge of the precision instrument approach surface is at the same width and elevation as, and coincides with, the end of the primary surface. The precision instrument approach surface inclines upward and outward for a horizontal distance of 10,000 feet at a slope of 50:1, expanding uniformly to a width of 4,000 feet, then continues upward and outward for an additional horizontal distance of 40,000 feet at a slope of 40:1, expanding uniformly to an ultimate width of 16,000 feet.

6. Transitional surface. An imaginary surface extending upward and outward at right angles to the runway centerline and the runway centerline extended at a slope of 7:1 from the sides of the primary surfaces and from the sides of the approach surfaces until they intersect the horizontal surface or the conical surface. Transitional surface for those portions of the instrument approach surface which project through and beyond the limits of the conical surface extend a distance of 5,000 feet measured horizontally from the sides of the approach surface and at right angles to the extended instrument runway centerline.

F. Obstructions to public heliports. An object will be considered an obstruction to a public heliport if it is of greater height than any of the following heliport imaginary surfaces:

1. Heliport primary surface. The primary surface of a heliport coincides in size and shape with the designated takeoff and landing area. This surface is a horizontal plane at the elevation of the established heliport elevation.

2. Heliport approach surface. The heliport approach surface begins at each end of the primary surface, with the same width as the primary surface and extends outward and upward at a slope of 8:1 for a horizontal distance of 4,000 feet where its width is 500 feet.

3. Heliport transitional surface. The heliport transitional surfaces extend outward and upward from the lateral boundaries of the primary surface and from the approach surfaces at a slope of 2:1 for a distance of 250 feet measured horizontally from the centerline of the primary and approach surfaces.

G. The standards for marking and lighting structures are contained in FAA Advisory Circular 70/7460-1D, Obstruction Marking and Lighting, and any subsequent changes, except that spherical markers shall be a diameter of not less than 30 inches, and except that the colors of the markers shall be aviation orange, white, and chrome yellow, and be installed in that sequence.

14 MCAR § 1.3016 ~~§ 1.3010~~ Airport zoning standards. [Number change only, adopted at 3 S.R. 2265.]

~~Chapter Three: §§ 1.3017-1.3027.~~
[Portions of the following rule (§ 1.3017) are now found in § 1.3019.]

~~14 MCAR § 1.3017 General commercial operations regulations.~~

~~A. Commercial operations. "Commercial Operations" means any operations of an aircraft for compensation or hire, or any services performed incidental to the operation of any aircraft for which a fee is charged or compensation received, including but not limited to, the servicing, maintaining and repairing of aircraft, the rental or charter of aircraft, the operation of flight or ground schools, the operation of aircraft~~

for the application or distribution of chemicals or other substances, aerial photography and surveys, air shows or expositions, parachute jumping, and the operation of aircraft for fishing. "Commercial Operations" also means brokering or selling of any of the aforesaid services but does not include any operations of aircraft as common carriers certified by the federal government or the services incidental thereto.

B. License. Every person who does in fact provide or who advertises, represents or holds himself out as giving or offering to provide such service, must be licensed by the Commissioner. The license shall contain endorsements showing the type or types of commercial operations the licensee is authorized to perform. Such person must be licensed by the Commissioner before he advertises, represents or holds himself out as giving or offering to provide such service or services.

C. Application. Application for license shall be made on forms supplied by the Commissioner.

D. Fee. The fee shall be $10.00 annually and must accompany the application.

E. Duration and renewal. The license issued under this section shall be effective for one year from the date of issuance thereof and shall be renewed annually. Application for renewal shall be made 30 days before the expiration of the current license.

F. Nontransferability. The license shall not be transferable to other persons.

G. Display. The license issued under this section shall be posted in a prominent place in the office of the licensee.

H. Notice of change. The licensee shall immediately notify the Department of Transportation in writing of any change in the status of such commercial operation relating to ownership, activities, aircraft or key personnel.

I. Report of accidents. Each licensee shall be responsible for reporting all accidents which occur while aircraft are being operated in connection with his operation and involve any of the following conditions.

1. An accident which results in serious injury or death to an occupant of an aircraft, or to any person by direct contact with the aircraft.

2. An accident which occurs as the result of a violation of the Rules and Regulations of the Commissioner or of the Federal Aviation Administration.

3. An accident which results in substantial damage to an aircraft. "Substantial damage" as used herein is defined as follows:

a. Except as provided in subparagraph B. of this paragraph, substantial damage means damage or structural failure which adversely affects the structural strength, performance or flight characteristics of the aircraft, and which would normally require major repair or replacement of the affected component.

b. Engine failure, damage limited to an engine, bent fairings or cowling, dented skin, small punctured holes in the skin or fabric, ground damage to rotor or propeller blades. Damage to landing gear wheels, tires, flaps, engine accessories, brakes, or wing tips are not considered "substantial damage" for the purpose of this part.

Reports of all accidents shall be made on NTSB Form 6120, and in addition to such report, the operator shall give immediate notice to the Commissioner by telephone or telegraph of any accident involving death to any person.

J. Place of business.

1. Each applicant for a commercial operations license must have a place of business.

2. In addition, if the commercial activity includes the operation of aircraft, then such applicant's base of operation must be on a public airport or public seaplane base licensed by the Commissioner as provided by law, or an airport owned by the Metropolitan Airports Commission, except when such commercial operation is limited to:

a. Spraying and dusting.

b. The exclusive lease of the aircraft involved for a period of more than 30 days by a person who is not a commercial operator to a person who is not a commercial operator.

If the applicant does not own the airport or seaplane base he must submit evidence from the owner or municipality that he meets the airport owner's minimum standards for such commercial operation and is authorized to operate from such airport.

K. Aircraft. Each aircraft used by a licensee for commercial operation shall possess a currently valid certificate of airworthiness as issued by the Federal Aviation Administration, shall be continually maintained in an airworthy condition, and shall be currently registered with the Department of Transportation, or be taxed as flight property by the Department of Revenue, as required by the laws of this state. Such flight property tax payments must be current.

L. Airmen. Each airman engaged in commercial operations or employed by the commercial operator shall hold a currently valid airman's certificate, as issued by the Federal Aviation Administration, together with the appropriate ratings for the type of equipment to be operated or the kind of activity taking place.

M. Records. Each licensed commercial operator shall maintain, at the base of operations, basic records which must be kept up to date as follows:

1. Each flight made in equipment owned by a licensee shall be recorded. The register shall show the pilot's name, identification of the aircraft, and the date, time and duration of the flight.

2. An accurate list of airman personnel employed by the commercial operator, together with the airman certificate type, number of ratings, address, and where necessary, date of last physical examination.

3. A list of aircraft used in the commercial operation and the current Minnesota Department of Transportation, registration decal number and annual maintenance inspection date of each aircraft.

N. Compliance with the law. A person engaged in commercial operations shall comply with all laws of the State of Minnesota and the Rules and Regulations promulgated by any state department or agency.

O. Cooperation. The applicant for a commercial operations license shall offer full cooperation in respect to any inspection which may be made of his operation upon proper demand at reasonable hours by the Commissioner or any authorized representative of the Commissioner prior to or subsequent to the issuance of a license.

P. Shared expense flights. Part 61.118 of the Federal Aviation Regulations shall apply as rules of this department in determining whether or not a shared expense flight is a commercial operation.

Q. Leasing.

1. Any person who owns an aircraft and leases or rents that aircraft to a person not holding a commercial operations license under Chapter 3 is required to obtain a commercial operations license under these rules.

2. However, no commercial operations license shall be required of a person who owns his own aircraft and leases or rents his aircraft to a party who holds a commercial operations license.

R. Aircraft maintenance. An applicant whose commercial activity includes the operation of an aircraft and who is also not licensed to perform aircraft servicing, maintaining, and repairing must have a contract or agreement with a commercial operator licensed to perform these services for all aircraft used in the commercial activity.

S. Endorsements. To receive an endorsement to a commercial operations license, the applicant must meet and comply with the requirements of 14 MCAR § 1.3017, unless specifically excepted therefrom, and the appropriate regulation for the type or types of commercial operations applied for.

T. Telephone. Each applicant for a commercial operations license must have a telephone located at his place of business.

U. Insurance. The applicant for a commercial operations license must hold insurance contracts valid and in force for the duration of the license which provide coverage for each accident in the types and amounts as specified in the appropriate regulation for the type or types of commercial operations applied for.

The applicant shall ensure that the insurance company or companies which hold the insurance contracts is authorized by the Insurance Commissioner to do business in the State of Minnesota.

Any contract of insurance to be approved by the Commissioner shall carry an endorsement stating that such contract cannot be canceled by the insurer until after five days' notice in writing of such cancellation has been given the Commissioner by the insurer. In any case where an insurance contract is canceled by the insured, notice of such cancellation shall immediately thereafter be given to the Commissioner by the insurer.

[Portions of the following rule (§ 1.3018) are now found in § 1.3020.]

14 MCAR § 1.3018 Flight school.

A. Flight school. Any person engaged in giving or offering to give dual flight time, instruction or flight time leading to pilot's certificate or rating, or engaged in selling or giving solo flight time to persons holding less than a private pilot's certificate, for hire or reward, or advertising, representing, or holding himself out as giving or offering to give such instruction, shall be considered to be operating a flight school, except:

1. Company instruction. A company engaged in flight operation giving instruction to its own employees in furtherance of their duties in conjunction with such operation activity.

2. Public schools. Any public school, the University of Minnesota, or any institution of higher learning accredited by the North Central Association of Colleges and Secondary Schools and approved by it for carrying on collegiate work.

3. Aeronautics instructor. Any individual engaged in giving instruction, or offering to give instruction, in aeronautics either in flying or ground subjects, or both, for hire or reward, without advertising such occupation, without calling facilities an "air school" or anything equivalent thereto, without employing or using other instructors, and without using his own aircraft.

B. Minimum requirements. To be eligible for a flight school endorsement, an applicant shall show compliance with the following minimum requirements:

1. Records and office. The school operator shall keep and maintain complete and adequate records in addition to the students' log books of the flight instruction given to all regularly enrolled students, showing the date, the amount of dual or solo instruction, the maneuvers given, the aircraft used and the name of the instructor of each dual flight. These records shall be available for inspection at the flight school office and shall be retained for at least one year from the date of the last entry. The flight school operator shall show that he has an office of adequate size and containing the necessary facilities and equipment for the operation of the school.

2. Curriculum. The applicant must show to the satisfaction of the Commissioner a course outline or FAA Flight Training Handbook so organized for each course offered as to ensure that the student completing the course of ground and flight instruction will meet all the requirements of FAR Part 61. In the case of an FAA approved school, the FAA course outline will be acceptable. The flight instruction given to each regularly enrolled student shall be in accordance with such course outline a copy of which shall be made available to each student.

3. Rules and regulations. The flight school operator shall establish and enforce the rules and regulations which shall govern his flight school operation, including rules relating to the traffic pattern, practice areas, taxi rules, flight rules, and other safety procedures. These rules and regulations and a diagram thereof shall be prominently posted on a bulletin board at the flight school along with the required notices and other data necessary for the operation of the school. A copy of the rules and regulations shall be submitted with the application.

4. Insurance. The minimum insurance coverage for each accident shall be the following types and amounts:

a. $75,000 per passenger seat for passenger liability.

b. $100,000 per person and $300,000 per occurrence for bodily injury, excluding passengers.

c. $100,000 per plane for property damage.

5. Faithful performance bond covering students. The applicant must file with the Commissioner a continuous corporate surety bond to the State of Minnesota in the sum of $5,000 conditioned for the faithful performance of all contracts and agreements with students made by such person, firm, association or corporation, or their salesmen. The aggregate liability for the surety for all breaches of conditions of the bond in no event shall exceed the principal sum of $5,000. The surety of any such bond may cancel such bond upon giving sixty days' notice in writing to the Commissioner and thereafter the surety shall be relieved of liability for any breach of conditions occurring after the effective date of cancellation, provided, however, that whenever a bond under this section ceases to be in effect for any reason, the flight school license shall be revoked. The bond form shall be provided by the Commissioner. A copy of the executed bond certificate will be attached to the application.

C. The applicant must meet the requirements of 14 MCAR § 1.3017.

[Portions of the following rule (§ 1.3019) are now found in § 1.3021.]

14 MCAR § 1.3019 Ground school and aeronautical correspondence school.

A. Ground school and aeronautical correspondence school. A ground school or aeronautical correspondence school shall be any person giving or offering to give instruction in aeronautical ground subjects leading to a pilot's certificate or rating, for hire or reward, except any public school, the University of Minnesota, or any institution of higher learning accredited by the North Central Association of Colleges and Secondary Schools and approved by it for carrying on collegiate work.

B. Requirements. To be eligible for a ground school or an aeronautical correspondence school endorsement, the applicant shall meet the following minimum requirements:

1. Classroom. Applicant shall maintain a suitable classroom with adequate seating facilities for the maximum number of students enrolled in each class, such classroom to be properly heated, lighted, ventilated, and have access to proper sanitary facilities. This requirement shall not apply to aeronautical correspondence schools.

2. Records. The applicant shall maintain adequate records of the instruction given, which shall show the date, the hours of attendance, the subjects covered, the examination given, and the grade achieved by each student. Such records shall be maintained for at least one year from the date of last entry and shall be available for inspection.

3. Curriculum. Each school shall show to the satisfaction of the Commissioner a curriculum so organized as to properly qualify each student completing the particular course for the grade of pilot certificate he is seeking. In the case of an FAA approved school, FAA curriculum will be acceptable.

4. Faithful performance bond covering ground school and aeronautical correspondence school students. The applicant must file with the Commissioner a continuous corporate surety bond to the State of Minnesota in the sum of $5,000 conditioned for the faithful performance of all contracts and agreements with students made by such person, firm association or corporation, or their salesmen. The aggregate liability for the surety for all breaches of the conditions of the bond in no event shall exceed the principal sum of $5,000. The surety on any such bond may cancel such bond upon giving sixty days' notice in writing to the Commissioner and thereafter the surety shall be relieved of liability for any breach of conditions occurring after the effective date of cancellation, provided, however, that whenever a bond under this section ceases to be in effect for any reason, the ground school or aeronautical correspondence school license shall be revoked. The bond form shall be provided by the Commissioner of

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Aeronautics. A copy of the executed bond certificate will be attached to the application.

5. The applicant must have at least one FAA certificated flight or ground instructor to certify training reports.

6. The applicant must be able to certify to the student that he has satisfactorily completed the course of instruction or home study in the appropriate knowledge areas for the rating sought.

C. The applicant must meet the requirements of 14 MCAR § 1.3017.

14 MCAR § 1.3020 Reserved for future use.

[Portions of the following rule (§ 1.3021) are now found in § 1.3022.]

14 MCAR § 1.3021 Aircraft charter.

A. Endorsement for charter operations. Any person engaged in flying persons or property from place to place, or offering to provide such service for hire or reward, who does not hold a certificate of public convenience and necessity from the Civil Aeronautics Board or its successor, or who does not hold a license as a commuter air carrier under 14 MCAR § 1.3026, shall be deemed to be engaged in a charter operation and shall have an endorsement on his commercial operations license to certify to his authority to engage in charter operations.

B. ATCO certificate. The applicant shall be the holder of an air taxi/commercial operator certificate with operating specifications as issued by the Federal Aviation Administration, and a valid letter of registration from the Civil Aeronauties Board. A copy of this certificate with operating specifications shall be attached to the application.

C. Insurance. The minimum insurance coverage for each accident shall be the types and amounts as specified by the Civil Aeronautics Board.

D. The applicant must meet the requirements of 14 MCAR § 1.3017.

[Portions of the following rule (§ 1.3022) are now found in § 1.3023.]

14 MCAR § 1.3022 Aircraft rental or leasing.

A. Endorsement for aircraft rental or leasing. Any person renting or leasing aircraft or offering to rent or lease aircraft for hire or reward shall be deemed to be in the business of renting or leasing aircraft and must have an endorsement on his commercial operations license certifying his authority to engage in such activity.

B. Records. The holder of a commercial operations license with an aircraft rental or lease endorsement shall keep and maintain a complete and adequate set of records to show the following:

1. The name of the pilot renting or leasing an aircraft.

2. The identification of the aircraft rented or leased.

3. The date, time, and duration of the flight for which the aircraft was rented or leased.

C. Qualifications of lessee. The commercial operator shall determine before initially renting or leasing any aircraft that the lessee thereof is properly licensed and rated to fly the type of aircraft to be rented or leased. When in the interest of safety, the operator determines that a flight check is necessary or desirable, such flight shall be given the lessee by a person holding an effective commercial pilot, flight instructor, or airline transport pilot certificate. The commercial operator shall assure that a designated person capable of determining that an aircraft is properly serviced is present when an aircraft is checked out.

D. Insurance. The minimum insurance coverage for each accident shall be of the following types and amounts:

1. $75,000 per passenger seat for passenger liability.

2. $100,000 per person and $300,000 per occurrence for bodily injury, excluding passengers.

3. $100,000 per plane for property damage.

E. The applicant must meet the requirements in 14 MCAR § 1.3017.

[Portions of the following rule (§ 1.3023) are now found in § 1.3024.]

14 MCAR § 1.3023 Air ambulance service.

A. Endorsement for air ambulance service. Any person engaged in flying ambulance stretcher cases from place to place, or offering to provide such service for hire or reward, shall be deemed to be engaged in air ambulance service and shall have an endorsement on his commercial operations license certifying his authority to engage in air ambulance service.

B. Aircraft. Each aircraft to be used as an ambulance for the purpose of transporting stretcher cases shall have ample area to accommodate a regulation ambulance cot or aircraft ambulance stretcher in a horizontal position, and shall be so designed as to permit loading without excessive tilting. The aircraft shall be equipped with at least one safety belt for securing the person and cot or stretcher to the aircraft.

C. Department of Health certificate. The air ambulance service shall be the holder of a current authorized air ambulance service certificate with specifications for nonemergency or emergency service, or both, issued by the Minnesota Department of Health. A copy of the certificate shall be attached to the application.

D. Insurance. The minimum insurance coverage for each accident shall be the types and amounts as specified by the Civil Aeronautics Board.

E. Transportation of dead human bodies. The provisions contained in this section shall also apply to the transportation of dead human bodies by airplane, and such bodies shall be transported on the type of cot or stretcher described in 14 MCAR § 1.3023 B.

F. Air taxi/commercial operator certificate. The air ambulance service shall be the holder of an air taxi/commercial operator certificate with operating specifications as issued by the Federal Aviation Administration, and a letter of registration from the Civil Aeronautics Board. A copy of this certificate with operating specifications shall be attached to the application.

G. The applicant must meet the requirements of 14 MCAR § 1.3017.

[Portions of the following rule (§ 1.3024) are now found in § 1.3025.]

14 MCAR § 1.3024 Aerial spraying or dusting.

A. Aircraft spraying or dusting. Any person applying or offering to apply chemicals or other substances from an aircraft shall be deemed to be engaged in aerial spraying or dusting.

B. Emergency provision. If the Governor declares an emergency to exist with respect to crop conditions, the Commissioner may authorize variances from the regulations.

C. Spraying or dusting pilots. Each commercial operations licensee authorized to engage in aerial spraying or dusting shall complete pilot qualification forms furnished by the Department for each person engaged in piloting aircraft in the licensee's spraying or dusting operation. These forms shall be forwarded to the Department of Transportation. If the pilots' qualifications meet the minimum qualifications prescribed by these regulations, certificates will be prepared and forwarded, certifying that the pilots are authorized to engage in aerial spraying or dusting in the licensee's operation. These certificates shall be in actual possession of the pilots at all times when engaged in aerial spraying or dusting in this state.

D. Department of Agriculture recommendation. No endorsement authorizing a commercial operator to engage in aerial spraying or dusting will be issued and no pilot will be certified as being qualified to do aerial spraying or dusting unless the Department of Agriculture recommends approval of such endorsement or certificate.

E. Aircraft and pilot safety equipment. Every aircraft used for aerial spraying or dusting in this state shall be provided with a positive method of shutting off distribution of chemicals or other substances which shall prevent material from leaking or dropping except over the areas of intended application. Every aircraft shall also be equipped with quick detachable safety belt and shoulder harness. Each pilot shall wear protective headgear during such flight operation.

F. Pilot's special qualifications. Each pilot engaging in aerial spraying or dusting shall, in addition to possessing a commercial or airline transport pilot's certificate, meet the requirements of subsection 1. below, as well as one of the other subsections set forth below:

1. 10 hours of flying time in the preceding six months in the make and model of aircraft to be used, and

2. 30 hours of actual aerial application or distribution of chemicals or other substances, or

3. 10 hours of simulated crop spraying or dusting under the supervision of a pilot with a commercial or airline transport pilot certificate and a minimum of one year's crop spraying or dusting experience and the recommendation of such pilot who supervised the simulated training, or

4. 5 hours of dual instruction in crop spraying or dusting, such dual to be given by a pilot with an instructor rating, who has a minimum of one year's spraying or dusting experience, and the recommendation of such pilot who gave such dual instruction.

G. Nonresident applicant. Every nonresident commercial operation applicant shall give his permanent address and the name of the airport from which his operations are conducted in his resident state.

H. Aircraft. In the application, the aerial applicator must inform the Commissioner of all aircraft (by factory make, model, year and "N" number) that the aerial applicator intends to use within the state.

I. Certificate. The applicant shall be the holder of a commercial agricultural aircraft operator certificate. A copy of this certificate with amendments shall be attached to the application.

J. Insurance. The minimum insurance coverage for each accident shall be the following types and amounts:

1. $100,000 per person and $300,000 per occurrence for bodily injury, excluding passengers.

2. $100,000 per plane for property damage, excluding chemical drift.

K. The applicant must meet the requirements of 14 MCAR § 1.3017 unless specifically excepted therefrom.

[Portions of the following rule (§ 1.3025) are now found in § 1.3026.]

14 MCAR § 1.3025 Aircraft servicing, maintaining and repairing.

A. Aircraft servicing, maintaining, and repairing. Any person providing or offering to provide aircraft maintenance (as defined in FAR Part 1), major or minor repair or alteration to airframes or aircraft power plants or both, shall be deemed to be engaged in the business of aircraft servicing, maintaining and repairing, and shall have a commercial operations license

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with an endorsement to certify his authority to engage in aircraft servicing, maintaining and repairing.

B. Requirements. To be eligible for an aircraft servicing, maintaining and repairing endorsement, the applicant shall show an available shop maintenance facility, whether owned or leased, which meets the following standards:

1. A building or portion of a building located on a public or private commercial airport, of adequate size to completely enclose at least one fully assembled aircraft with sufficient space to work on the aircraft.

2. Adequate fire protection equipment to meet the standards of the local fire marshal's office, but not less than one outward swinging personnel exit door and one fully charged fire extinguisher with a minimum of ten pounds of carbon dioxide or its equivalent.

3. At least one "A & P" mechanic or one "A" mechanic and one "P" mechanic shall be employed.

C. Insurance. The minimum insurance coverage for each accident shall be of the following types and amounts:

1. $100,000 per person and $300,000 per accident for premise hazard for bodily injury.

2. $100,000 per accident for premise hazard for property damage.

3. Products hazard insurance shall be carried.

D. The applicant must meet the requirement of 14 MCAR § 1.3017.

[Portions of the following rule (§ 1.3026) are now found in § 1.3027.]

14 MCAR § 1.0026 Commuter air carriers.

A. Any person offering to provide scheduled air transportation in this state must obtain a commercial operations license and a scheduled air carrier certificate of registration from the Commissioner before engaging in such activity, and annually thereafter.

B. As used in these rules, "air carrier" means that person owning, controlling, operating or managing aircraft as a common carrier of either persons or property, or both, for compensation on regularly scheduled flights.

C. These regulations do not apply to that portion of an air carrier's operations in this state which is conducted between points named in a then current certificate of public convenience and necessity issued by the Civil Aeronautics Board, or its successor.

D. No air carrier shall operate aircraft on regularly scheduled flights except in accordance with the provisions of these regulations.

E. Requirements. Any person requesting an endorsement to certify his authority to engage in commuter air carrier service on his commercial operations license must meet the following minimum requirements:

1. ATCO certificate. The commuter air carrier shall be the holder of an air taxi/commercial operator certificate with operation specifications as issued by the Federal Aviation Administration, and a letter of registration from the Civil Aeronautics Board. A copy of this certificate with operating specifications shall be attached to the application.

2. Use agreements. A copy of current use agreements with owners of each airport to be served in the state shall be attached to the application. Each agreement shall set forth what facilities will be used on the airport.

3. Faithful performance bond. Covering advance ticket sales.

a. The commuter air carrier must file with the Commissioner, on a form provided by him, a fully executed copy of a continuous corporate surety bond to the State of Minnesota in the sum of $10,000 conditioned upon the refund of all unperformed advance ticket sales to passengers made by such commuter air carrier or his agents. The aggregate liability for the surety of all breaches of the conditions of the bond in no event shall exceed the principal sum of $10,000. The surety on such bond may cancel such bond upon giving sixty days' notice in writing to the Commissioner, and thereafter the surety shall be relieved of the liability for any breach of conditions occurring after the effective date of cancellation. Whenever a bond under this section ceases to be in effect for any reason, the commercial operations license shall be revoked.

b. The bond shall not enlarge upon or alter in any way the ticket contract between the commuter air carrier and its customers.

4. Aircraft. In the application, the commuter air carrier must inform the Commissioner of all aircraft (by factory make, model, and "N" number) that the commuter air carrier intends to use within the state.

5. Schedules and rates. The commuter air carrier must submit a copy of its proposed schedules and its proposed passenger and freight rates with each application. No schedule or rate change shall be made without notifying the Commissioner as to such change at least ten days before such change is to go into effect.

6. The commuter air carrier shall file with the Commissioner a copy of all reports which it files with the Civil Aeronautics Board or its successor agencies, such filing to be done within ten days after such reports are filed with said agencies.

F. Insurance. The minimum insurance coverage for each accident shall be the types and amounts as specified by the Civil Aeronautics Board.

[Portions of the following rule (§ 1.3027) are now found in § 1.3029.]

14 MCAR § 1.3027 Flying clubs.

A. Flying Club. Minn. Stat. §§ 360.013, subd. 18 (1967),

reads as follows: "'Flying Club' means any person other than an individual which neither for profit nor reward, owns, leases, or uses one or more aircraft for the purpose of instruction or pleasure, or both."

B. Registration. Each flying club, which at any time during a preceding calendar year, has five or more members shall register annually with the Commissioner. Such registration shall report conditions as of December 31, of each year, and shall be filed with the Commissioner by January 31 of each year.

1. The name and address of the flying club, the airport or airports at which its aircraft are based, and the make, model and "N" number of the aircraft that the club either owned or used during the past calendar year.

2. The form of organization of the flying club that is, whether it is a corporation or a partnership.

3. The name, home address and phone number and business address and phone number of the Club Safety and Operations Officer.

4. A statement describing what renumeration was paid to members of the club, monthly and annually, during the preceding calendar year or preceding fiscal year, as the case may be, a description of the services rendered by such members to the club, and a description of the goods sold by such member of the club.

C. Club Safety and Operations Officer. Every flying club must appoint a Club Safety and Operations Officer and set forth his duties in their operating rules or bylaws.

D. Responsibilities of the Club Safety and Operations Officer. The Club Safety and Operations Officer will be responsible for the records of the club's operation. These records must be up to date and in an orderly form.

These records must contain the following information:

1. Names and addresses of all current members.

2. If the flying club is a corporation, then the articles of incorporation and all amendments thereto, the current bylaws, minutes of the corporation, and all shareholder agreements. If the flying club is a partnership, then the current articles of partnership and all current partnership agreements.

3. All club operating rules.

4. The share in club assets held by each member, stated by percentage or dollars.

5. The voting rights of each member, stated by percentage or dollars.

6. The rights of each member to the assets of the club, stated by percentage or dollars, in case of dissolution of the club if a corporation, and in case of termination of the club, if a partnership.

7. A statement of financial condition of the flying club at the end of its preceding fiscal year, or at the end of its preceding calendar year, as the case may be, showing the assets and liabilities of the club.

8. An operating statement of the club for the preceding fiscal year, or the preceding calendar year, as the case may be, showing the profits or losses, or a statement of receipts and disbursements, of the club, as the case may be, for that period of time.

E. Inspection of records. The Commissioner, or any employees of the department designated by him, shall have the right to inspect the books and record of any flying club, including but not limited to, the records referred to above.

F. Statutory definitions. Statutory definitions, where applicable, shall apply to these rules. As a matter of convenience, the following statutory definitions are set forth below.

1. Commercial Operations, Minn. Stat. § 360.013, subd. 11. " 'Commercial Operations' means any operations of an aircraft for compensation or hire, or any services performed incidental to the operation of any aircraft for which a fee is charged or compensation received, including, but not limited to, the servicing, maintaining and repairing of aircraft, the rental or charter of aircraft, the operation of flight or ground schools, the operation of aircraft for the application or distribution of chemicals or other substances, aerial photography and surveys, air shows or expositions, parachute jumping, and forfeitures so long as the purpose and the actual effect thereof is to enforce valid club rules, or

2. If the property interest of any member of the club in the club's assets is not transferable; however, the transfer of such property interest may be subject to such reasonable conditions as the club deems reasonably necessary to ensure discipline and payment of dues among its members, or

3. If any member of the club receives a pecuniary gain or receives any special benefits, which are in excess of the reasonable value of the services rendered to the club by said member, or are in excess of the reasonable value of the goods sold to the club by said member; however, this rule does not prohibit a flying club from paying one or more of its members a reasonable amount for services such as bookkeeping, secretarial, managerial, maintenance and administrative duties of the flying club; or

4. If the club charters, leases or rents their aircraft or any interest in their aircraft to any persons or organizations other than fully qualified members of said club; provided, however, that this paragraph shall not prohibit flying clubs

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~~from leasing club aircraft to properly licensed commercial operators; or~~

~~5. If the club provides for, or allows, memberships with a duration of less than 90 days; or~~

~~6. If the club advertises, represents, or holds itself out as giving or offering to give, or does in fact provide or arrange for, "air instruction" as an "air school" (see Minn. Stat. § 360.13, subd. 16 and 17 (1967)), provided, however, that this rule does not prohibit a club from providing or arranging for "air instruction," so long as it is not for compensation or hire; provided further that this rule does not prohibit a bona fide club member from paying compensation to an "aeronautics instructor" for "air instruction."~~

~~I. A flying club shall not be deemed to be engaged in commercial operations:~~

~~1. Solely for the reason that an "aeronautics instructor" gives "air instruction" for hire to bona fide members of a flying club (see Minn. Stat. § 360.013, subd. 19 (1967) and Regulation (h)(6).~~

~~2. Solely for the reason that a member of the flying club services, maintains or repairs the club's aircraft.~~

Chapter Three §§ 1.3017-1.3018: Seaplane Operations

14 MCAR § 1.3017 Seaplane operations.

A. Compliance with marine traffic rules and regulations. All seaplanes must comply with marine traffic rules and regulations if such rules and regulations do not interfere with the safe operations of aircraft.

B. Approaches and take-offs. All approaches to and take-offs from the water area shall be made in such a manner as to clear all structures on the land by at least 100 feet, and wherever the area of the body of water will permit, such landing and take-offs shall be made at a distance of not less than 300 feet, both laterally and vertically, from any boat or person on the surface of the water, or as near to 300 feet as the area of the water will permit.

14 MCAR § 1.3018 Seaplane operations within the seven-county metropolitan area.

A. Scope. 14 MCAR § 1.3018 covers seaplane operations on all public waters within the following counties: Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington.

B. Seaplane operations are permitted only on the following public waters within the seven-county metropolitan area.

1. Anoka County
   a. Centerville Lake
   b. Clear Lake
   c. Coon Lake
   d. George Watch Lake
   e. Ham Lake
   f. Howard Lake
   g. Lake George
   h. Linwood Lake
   i. Martin Lake
   j. Mississippi River
   k. Mud Lake
   l. Otter Lake
   m. Peltier Lake
   n. Pickerel Lake
   o. Reshenav Lake
   p. Rice Lake
   q. Round Lake
2. Carver County
   a. Goose Lake
   b. Hazeltine Lake
   c. Lake Minnewashta
   d. Lake Pettersen
   e. Lake Riley
   f. Lake Waconia
   g. Lundsten Lake
   h. Mud Lake
   i. Oak Lake
   j. Parley Lake
   k. Pierson Lake
   l. Tiger Lake
3. Dakota County
   a. Alimagnet
   b. Byllesby Reservoir
   c. Crystal Lake
   d. Lake Marion
   e. Mississippi River
   f. Orchard Lake
   g. St. Croix River
4. Hennepin County
   a. Bryant Lake
   b. Diamond Lake
   c. Eagle Lake
   d. Fish Lake
   e. French Lake
   f. Lake Independence
   g. Lake Minnetonka, except the following areas: Black Lake, Emerald Lake, French Lake, Forest Lake,

Gray's Bay, Libb's Lake, Peavy Lake, Seton Lake, Tanager Lake

h. Lake Sarah

i. Medicine Lake

j. Mississippi River

k. Schmidt Lake

l. Whaletail Lake

5. Ramsey County

a. Bald Eagle Lake

b. Lake Owasso

c. Lone Lake

d. Mississippi River

e. Turtle Lake

f. White Bear Lake

6. Scott County

a. Cedar Lake

b. Geis Lake

c. Pleasant Lake

d. Prior Lake East

e. Prior Lake West

f. Spring Lake

7. Washington County

a. Big Carnelian Lake

b. Big Marine Lake

c. Forest Lake

d. Lake Elmo

e. Mississippi River

f. Oneka Lake

g. St. Croix River

C. Prohibited operations. Seaplane operations are prohibited on all public waters within the seven-county metropolitan area not listed in paragraph B of this section. NOTE: See paragraph E of this section.

D. Further restrictions. All seaplane operations are prohibited from 11 a.m. (CDST) to 6 p.m. (CDST) on Saturdays, Sundays, and national legal holidays between June 1 and September 15 on the following public waters:

Lake Minnetonka and all bays and lakes therein.

White Bear Lake and all bays and lakes therein.

Lake Owasso and all bays and lakes therein.

However, this restriction contained in D. shall not apply to the holder of a Private or Personal-use Seaplane Base License issued under 14 MCAR § 1.3011 and § 1.3013 while operating to and from his licensed base subject to the following conditions:

1. Such operations are limited to a maximum of one takeoff and one landing during these restricted hours; and

2. Such operations are authorized only when lake traffic and use permit such operations to be conducted in a safe and reasonable manner.

E. Emergency use. Nothing in 14 MCAR § 1.3018 shall be construed to prohibit the landing or taking off of a seaplane in case of a bona fide emergency.

F. Ski-equipped aircraft. When lakes are frozen, aircraft equipped with either wheels or skis may operate on the lakes if such operations can be conducted in a safe and reasonable manner relative to lake traffic and use.

~~**Chapter Four § 1.3028**~~

~~**14 MCAR § 1.3028 General operation rules.**~~

~~A. Scope. This part governs the operation of civil aircraft in the state.~~

~~B. Registration certificate. A registration certificate issued to the owner of the aircraft by the FAA shall be carried in the aircraft at all times, and the current state registration decal shall be affixed to the aircraft in the prescribed manner.~~

~~C. Airworthiness certificate. An airworthiness certificate or special authorization issued by the FAA approving its operation shall be carried in the aircraft at all times during flight.~~

~~D. Aircraft and engine records. The registered owner of every aircraft certificated as being airworthy by the FAA shall maintain and keep available for inspection and for transfer with the aircraft or engine the following aircraft and engine records:~~

~~1. Flight time of aircraft and each engine.~~

~~2. Reports of inspections.~~

~~E. A mechanical device which records the total time of operation or the total number of engine revolutions may be used in lieu of individual flight entries, provided the totals are recorded in the record at regular intervals.~~

~~F. Entries shall be made showing each repair, rebuilding, and alteration of any aircraft, powerplant, propeller, and such entries shall contain:~~

~~1. An adequate description of the work performed.~~

~~2. The date of completion of the work performed.~~

KEY: RULES SECTION — Underlining indicates additions to proposed rule language. ~~Strike outs~~ indicate deletions from proposed rule language. **PROPOSED RULES SECTION** — Underlining indicates additions to existing rule language. ~~Strike outs~~ indicate deletions from existing rule language. If a proposed rule is totally new, it is designated "all new material."

~~3. The name of the individual, repair station, or manufacturer performing the work.~~

~~4. Signature of the person approving the work performed as airworthy and authorizing the return of the aircraft or component to service.~~

~~G. General. An aircraft shall not be flown unless it is in airworthy condition.~~

~~H. Airworthiness inspection. An aircraft shall not be flown except for airworthiness flight tests, unless it has been found to be airworthy by a person designated by the FAA.~~

Chapter Four §§ 1.3019-1.3028: Licensing of Commercial Operations

14 MCAR § 1.3019 General commercial operations rules.

A. Commercial operations. "Commercial operations" means any operation of an aircraft for compensation or hire; or any services performed incidental to the operation of any aircraft for which a fee is charged or compensation received, including but not limited to, the servicing, maintaining and repairing of aircraft, the rental or charter of aircraft, the operation of flight or ground schools, the operation of aircraft for the application or distribution of chemicals or other substances, aerial photography and surveys, air shows or expositions, parachute jumping and the operation of aircraft for fishing. "Commercial operations" also means brokering or selling of any of the aforesaid services but does not include any operations of aircraft as common carriers by the federal government or the services incidental thereto. NOTE: Shared expense flights as defined in the Federal Aviation Regulations are not commercial operations as defiined in this chapter.

B. License. Every person who does in fact provide or who advertises, represents or holds themselves out as giving or offering to provide such service, must be licensed by the Commissioner. The license shall contain endorsements showing the type or types of commercial operations the licensee is authorized to perform. Such persons must be licensed by the Commissioner before they advertise, represent or hold themselves out as giving or offering to provide such service or services.

C. Application. Application for license shall be made on forms supplied by the Commissioner.

D. Fee. The fee shall be $10.00 annually and must accompany the application.

E. Duration and renewal. The license issued under this section shall be effective for one year from the date of issuance thereof and shall be renewed annually. Application for renewal shall be made 30 days before the expiration of the current license.

F. Nontransferability. The license shall not be transferable to other persons.

G. Display. The license issued under this section shall be posted in a prominent place in the office of the licensee.

H. Notice of change. The licensee shall immediately notify the Department of Transportation in writing of any change in the status of such commercial operation relating to ownership, activities, aircraft or key personnel.

I. Place of business.

1. Each applicant for a commercial operations license must have a place of business.

2. In addition, if the commercial activity includes the operation of aircraft for the purpose of carrying passengers, providing air charter, flight instruction, aircraft rental and/or leasing, then such applicant's base of operations shall be on:

a. An airport licensed for public use by the Commissioner as provided by law or an airport owned by the Metropolitan Airports Commissioner, or:

b. A private airport licensed by the Commissioner if that airport meets the requirements of 14 MCAR § 1.3007, § 1.3008 and § 1.3009.

3. If the commercial activity is limited to aircraft servicing, maintaining and repairing, then such base of operation may be on a public or private airport licensed by the Commissioner as provided by law.

4. A personal-use airport licensed by the Commissioner may be used for commercial operations which are not included in paragraphs 2 and 3 above.

J. Airport authorization. If the applicant does not own the airport, he or she must submit evidence from the owner that he or she meets the airport owner's minimum standards for such commercial operation and is authorized to operate from such airport.

K. Aircraft. Each aircraft used by a licensee for commercial operations shall be currently registered with the Department of Transportation, or be taxed as flight property by the Department of Revenue, as required by laws of this state. Such flight property tax payments must be current.

L. Records. Each licensed commercial operator shall maintain basic records which must be kept up-to-date as follows:

1. Each flight made in equipment owned by a licensee shall be recorded. The register shall show the pilot's name, identification of the aircraft, and the date, time and duration of the flight.

2. An accurate list of airman personnel employed by the commercial operator, together with the airman certificate type, number of ratings, address and where necessary, date of last physical examination.

3. A list of aircraft used in the commercial operation and the current Minnesota Department of Transportation registration decal number.

M. Compliance with the law. A person engaged in commercial operations shall comply with all laws, rules and regulations of the State of Minnesota and the Federal Government.

N. Aircraft maintenance. An applicant whose commercial activity includes the operation of an aircraft and who is also not licensed to perform aircraft servicing, maintaining, and repairing must have a contract or agreement with a commercial operator licensed to perform these services for all aircraft used in the commercial activity, or employ a mechanic certificated by the FAA for the type of servicing, maintaining and repairing to be performed.

O. Cooperation. The applicant for a commercial operations license shall offer full cooperation with respect to any inspection which may be made of his operation upon proper demand at reasonable hours by the Commissioner or any authorized representative of the Commissioner prior to or subsequent to the issuance of a license.

P. Endorsements. To receive an endorsement to a commercial operations license, the applicant must meet and comply with the requirements of 14 MCAR § 1.3019, unless specifically exempted therefrom, and must also comply with the appropriate regulation for the type or types of commercial operations applied for.

Q. Insurance.

1. Unless otherwise specified in this chapter, the applicant for a commercial operations license, whose operation will involve the use of aircraft must hold insurance contracts valid and in force for the duration of the license which provide coverage for each aircraft in the types and amounts as specified in the appropriate rule for the type or types of commercial operations applied for.

2. The applicant shall ensure that the insurance company or companies which hold the insurance contracts are authorized by the Insurance Commissioner to do business in the State of Minnesota.

3. Any contract of insurance to be approved by the Commissioner shall carry an endorsement stating that such contract cannot be cancelled by the insurer until five days' notice in writing of such cancellation has been given the Commissioner by the insurer. In any case, where an insurance contract is cancelled, notice of such cancellation shall immediately thereafter be given to the Commissioner by the insurer.

14 MCAR § 1.3020 Flight school.

A. Flight school. Any person engaged in giving or offering to give dual flight instruction leading to a pilot's certificate or rating or giving or offering to give solo flight instruction leading to a pilot's certificate or rating for hire or compensation, or advertising, representing, or holding himself out as giving or offering to give such instruction, shall be considered to be operating a flight school, except:

1. Company instruction. A company engaged in flight operation giving flight instruction to its own employees in furtherance of their duties in conjunction with that flight operation.

2. Public schools. Any public school, the University of Minnesota, or any institution of higher learning accredited by the North Central Association of Colleges and Secondary Schools and approved by it for carrying on collegiate work.

3. Aeronautics instructor. Any individual engaged in giving flying or ground subjects, or both, for hire or compensation, without advertising such occupation, without calling facilities an "air school" or anything equivalent thereto, without employing or using other instructors and without operating an aircraft for compensation or hire for the purpose of flight instruction.

B. Minimum requirements. To be eligible for a flight school endorsement, an applicant shall show compliance with the following minimum requirements:

1. Office. The flight school operator shall show that he or she has an office of adequate size with the necessary facilities and equipment for the operation of the school.

2. Records. The flight school operator shall keep and maintain complete and adequate records of the flight instruction given to all enrolled students, showing the date, the amount of dual or solo instruction, the maneuvers given, the aircraft used and the name of the instructor of each dual flight. These records shall be available for inspection at the flight school office and shall be retained for at least one year from the date of the last entry.

3. Curriculum. The applicant must show to the satisfaction of the Commissioner a course outline so organized for each course offered as to ensure that the student completing the course of ground and flight instruction will meet all the requirements of FAR Part 61. All course outlines shall include a review of Minnesota Statutes and Rules relating to Aeronautics that are pertinent to that course.

a. In the case of an FAA approved school, the FAA approved course outline is acceptable, if the review of Minnesota Statutes and Rules is included.

b. The flight instruction given to each regularly enrolled student shall be in accordance with such course outline, a copy of which shall be made available to each student.

4. Rules. The flight school operator shall establish and enforce the rules which shall govern the flight school operation, including rules relating to the traffic pattern, practice areas, taxi rules, flight rules and other safety procedures. A diagram of the traffic pattern and the practice area shall be posted on a bulletin board at the flight school. Other rules and safety procedures of the school shall be readily available to all

students. A copy of the rules shall be submitted with the application.

5. Insurance. The minimum insurance coverage for each aircraft shall be of the following types and amounts:

a. $75,000 per passenger seat for passenger liability.

b. $100,000 per person and $300,000 per occurrence for bodily injury, excluding passengers.

c. $100,000 per plane for property damage.

d. Each flight school operator shall advise the student as to whether or not he or she is specifically covered under the flight school's insurance policy and the type and extent of coverage, if any. The flight school operator must then obtain a signed statement of acknowledgement of this disclosure from the student.

6. Faithful performance bond covering students. The applicant must file with the Commissioner a continuous corporate surety bond to the State of Minnesota in the sum of $5,000 conditioned for the faithful performance of all contracts and agreements with students made by such person, firm, association or corporation, or their agent.

a. The aggregate liability for the surety for all breaches of conditions of the bond in no event shall exceed the principal sum of $5,000.

b. The surety of any such bond may cancel such bond upon giving sixty days' notice in writing to the Commissioner and thereafter the surety shall be relieved of liability for any breach of conditions occurring after the effective date of cancellation, provided, however, that whenever a bond under this section ceases to be in effect for any reason, the flight school license shall be revoked.

c. The bond form shall be provided by the Commissioner.

d. A copy of the executed bond certificate shall be attached to the application.

C. The applicant must meet the requirements of 14 MCAR § 1.3019.

14 MCAR § 1.3021 Ground school and aeronautical correspondence school.

A. Ground school and aeronautical correspondence school. A ground school or aeronautical correspondence school shall be any person giving or offering to give instruction in aeronautical ground subjects leading to a pilot's certificate or rating, for hire or compensation, except any public school, the University of Minnesota, or any institution of higher learning accredited by the North Central Association of Colleges and Secondary Schools and approved by it for carrying on collegiate work.

B. Requirements. To be eligible for a ground school or an aeronautical correspondence school endorsement, the applicant shall meet the following minimum requirements:

1. Classroom. The applicant shall maintain a suitable classroom with adequate seating facilities for the maximum number of students enrolled in each class. Such classrooms shall be properly heated, lighted and ventilated, and the students shall have access to proper sanitary facilities. This requirement shall not apply to aeronautical correspondence schools.

2. Records. The applicant shall maintain adequate records of the instruction given, which shall show the date, the hours of attendance, the subjects covered, the examination given and the grade achieved by each student. Such records shall be maintained for at least one year from the date of last entry and shall be available for inspection.

3. Curriculum. Each school shall show to the satisfaction of the Commissioner a curriculum so organized as to properly qualify each student completing the particular course for the grade of pilot certificate he or she is seeking. All course outlines shall include a review of the Minnesota Statutes and Rules relating to Aeronautics that are pertinent to that course. In the case of an FAA approved school, the FAA approved curriculum will be acceptable, if the review of the Minnesota Statutes and Rules is included.

4. Faithful performance bond covering ground school and aeronautical correspondence school students. The applicant must file with the Commissioner a continuous corporate surety bond to the State of Minnesota in the sum of $5,000 conditioned for the faithful performance of all contracts and agreements with students made by such person, firm, association or corporation, or their agent.

a. The aggregate liability for the surety for all breaches of the conditions of the bond in no event shall exceed the principal sum of $5,000.

b. The surety on any such bond may cancel such bond upon giving sixty days' notice in writing to the Commissioner and thereafter the surety shall be relieved of liability for any breach of conditions occurring after the effective date of cancellation, provided, however, that whenever a bond under this section ceases to be in effect for any reason, the ground school or aeronautical correspondence school license shall be revoked.

c. The bond form shall be provided by the Commissioner.

d. A copy of the executed bond certificate shall be attached to the application.

5. Instructor. The applicant must have at least one FAA certificated flight or ground instructor to certify training reports.

6. Certification. The applicant must be able to certify to the student that he or she has satisfactorily completed the course of instruction or home study in the appropriate knowledge areas for the rating sought.

C. The applicant must meet the requirements of 14 MCAR § 1.3019.

14 MCAR § 1.3022 Aircraft charter.

A. Charter operations. Any person engaged in flying persons or property from place to place, or offering to provide such service for hire or compensation, who does not hold a certificate of public convenience and necessity from the Civil Aeronautics Board or its successor, or who does not hold a license as a commuter air carrier under 14 MCAR § 1.3027, shall be deemed to be engaged in a charter operation and shall have an endorsement on their commercial operations license to certify their authority to engage in charter operations.

B. ATCO certificate. The applicant shall be the holder of an air taxi/commercial operator certificate with operating specifications as issued by the Federal Aviation Administration, and a valid letter of registration from the Civil Aeronautics Board. A copy of this certificate with operating specifications shall be attached to the application.

C. Insurance. The minimum insurance coverage for each aircraft shall be the types and amounts as specified by the Civil Aeronautics Board.

D. The applicant must meet the requirements of 14 MCAR § 1.3019.

14 MCAR § 1.3023 Aircraft rental or leasing.

A. Aircraft rental or leasing. Any person renting or leasing aircraft or offering to rent or lease aircraft for hire or compensation shall be deemed to be in the business of renting or leasing aircraft and must have an endorsement on their commercial operations license certifying their authority to engage in such activity.

B. Records. The holder of a commercial operations license with an aircraft rental or leasing endorsement shall keep and maintain a complete and adequate set of records to show the following:

1. The name of the pilot renting or leasing an aircraft.

2. The identification of the aircraft rented or leased.

3. The date, time and duration of the flight for which the aircraft was rented or leased.

C. Qualifications of lessee. The commercial operator shall determine before initially renting or leasing any aircraft that the lessee is properly licensed and rated to fly the type of aircraft to be rented or leased. When, in the interest of safety, the operator determines that a flight check is necessary or desirable, such flight shall be given the lessee by a person holding an effective commercial pilot, flight instructor or airline transport pilot certificate. The commercial operator shall assure that a designated person capable of determining an aircraft is properly serviced is present when an aircraft is checked out.

D. Insurance. The minimum insurance coverage for each aircraft shall be of the following types and amounts:

1. $75,000 per passenger seat for passenger liability.

2. $100,000 per person and $300,000 per occurrence for bodily injury, excluding passengers.

3. $100,000 per plane for property damage.

4. Each commercial operator who rents or leases aircraft shall advise the renter pilot or lessee as to whether or not they are specifically covered under the flight school's insurance policy and the type and extent of coverage, if any. The commercial operator must then obtain a signed statement of acknowledgement of this disclosure from the renter pilot or lessee.

E. The applicant must meet the requirements of 14 MCAR § 1.3019.

14 MCAR § 1.3024 Air ambulance service.

A. Air ambulance service. Any person engaged in flying ambulance stretcher cases from place to place, or offering to provide such service for hire or compensation, shall be deemed to be engaged in air ambulance service and shall have an endorsement on their commercial operations license certifying their authority to engage in air ambulance service.

B. Aircraft. Each aircraft to be used as an ambulance for the purpose of transporting stretcher cases shall have ample area to accommodate a regulation ambulance cot or aircraft ambulance stretcher in a horizontal position, and shall be designed to permit loading without excessive tilting. The aircraft shall be equipped with at least one safety belt for securing the person and cot or stretcher to the aircraft.

C. Department of Health certificate. The air ambulance service shall be the holder of a current authorized air ambulance service certificate with specifications for non-emergency or emergency service, or both, issued by the Minnesota Department of Health. A copy of the certificate shall be attached to the application.

D. Insurance. The minimum insurance coverage for each aircraft shall be the types and amounts as specified by the Civil Aeronautics Board.

E. Transportation of dead human bodies. The provisions contained in this section shall also apply to the transportation of dead human bodies by aircraft. Such bodies shall be enclosed in a suitable container as specified by the State Department of Health and shall be transported on the type of cot or stretcher described in B above.

F. Air taxi/commercial operator certificate. The air ambulance service shall be the holder of an air taxi/commercial operator certificate with operating specifications as issued by

the Federal Aviation Administration and a letter of registration from the Civil Aeronautics Board. A copy of this certificate with operating specifications shall be attached to the application.

G. The applicant must meet the requirements of 14 MCAR § 1.3019.

14 MCAR § 1.3025 Aerial spraying or dusting.

A. Aircraft spraying or dusting. Any person applying or offering to apply chemicals or other substances from an aircraft shall be deemed to be engaged in aerial spraying or dusting.

B. Emergency provision. If an emergency is declared with respect to crop conditions, the Commissioner may authorize variances from the rules.

C. Department of Agriculture certification. No commercial operations license to engage in agricultural spraying or dusting will be issued until the applicant furnishes evidence that the requirements of the Minnesota Department of Agriculture are met.

D. Aircraft and pilot safety equipment. Every aircraft used for aerial spraying or dusting in this state shall be provided with a positive method of shutting off distribution of chemicals or other substances which shall prevent material from leaking or dropping except over the areas of intended application. Each pilot shall wear a seat belt, shoulder harness and protective headgear during flight operations.

E. Nonresident applicant. Every nonresident commercial operation applicant shall provide on the application a permanent address for the business.

F. Aircraft. In the application, the aerial applicator must inform the Commissioner of all aircraft (by factory make, model, year, "N" number, and the current Minnesota registration decal number) that the aerial applicator intends to use within the state.

G. Certificate. The applicant shall certify that he or she is the holder of an FAA commercial agricultural aircraft operator certificate.

H. Insurance. The minimum insurance coverage for each aircraft shall be the following types and amounts:

1. $100,000 per person and $300,000 per occurrence for bodily injury, excluding passengers.

2. $100,000 per plane for property damage.

I. The applicant must meet the requirements of 14 MCAR § 1.3019 unless specifically exempted therefrom.

14 MCAR § 1.3026 Aircraft servicing, maintaining and repairing.

A. Aircraft servicing, maintaining and repairing. Any person who for compensation or for hire, provides or offers to provide aircraft maintenance (as defined in FAR Part 1), major or minor repair, alteration to airframes or aircraft power plants or both, shall be deemed to be engaged in the business of aircraft servicing, maintaining and repairing and shall have a commercial operations license with an endorsement to certify their authority to engage in aircraft servicing, maintaining and repairing.

B. Requirements. To be eligible for an aircraft servicing, maintaining and repairing endorsement, the applicant shall meet the following minimum standards:

1. A building or available shop maintenance facility located on a licensed public or private airport, of adequate size and with sufficient space to work on the aircraft.

2. Adequate fire protection equipment to include at least:

a. One fully charged fire extinguisher with a minimum of ten pounds of carbon dioxide or its equivalent maintained in an operational condition.

b. One outward swinging personnel exit door.

3. At least one mechanic certificated by the FAA for the type of servicing, maintaining and repairing to be performed.

C. Insurance. The minimum insurance coverage shall be of the following types and amounts:

1. $100,000 per person and $300,000 per occurrence for premise hazard for bodily injury.

2. $100,000 per occurrence for premise hazard for property damage.

3. Products hazard insurance shall be carried.

4. Each person who provides aircraft servicing, maintaining and repairing shall advise his or her clients as to whether or not hangar-keepers insurance is in force and the extent of such coverage, if any.

D. The applicant must meet the requirement of 14 MCAR § 1.3019.

14 MCAR § 1.3027 Commuter air carriers.

A. Any person offering to provide scheduled air transportation in this state must obtain a commercial operations license and a scheduled air carrier certificate of registration from the Commissioner before engaging in such activity, and annually thereafter.

B. As used in these rules, "air carrier" means that person owning, controlling, operating or managing aircraft as a common carrier of either persons or property, or both, for compensation on regularly scheduled flights.

C. These regulations do not apply to that portion of an air carrier's operations in this state which is conducted between points named in a then-current certificate of public convenience and necessity issued by the Civil Aeronautics Board or its successor.

D. No air carrier shall operate aircraft on regularly-scheduled flights except in accordance with the provisions of these rules.

E. Requirements. Any person requesting an endorsement to certify their authority to engage in commuter air carrier service on their commercial operations license must meet the following minimum requirements:

1. ATCO certificate. The commuter air carrier shall be the holder of an air taxi/commercial operator certificate with operation specifications as issued by the Federal Aviation Administration, and a letter of registration from the Civil Aeronautics Board. A copy of this certificate with operating specifications shall be attached to the application.

2. Use agreements. A copy of current use agreements with owners of each airport to be served in the state shall be attached to the application. Each agreement shall set forth what facilities will be used on the airport.

3. Faithful performance bond covering advance ticket sales.

a. The commuter air carrier must file with the Commissioner, on a form provided by him, a fully executed copy of a continuous corporate surety bond to the State of Minnesota in the sum of $10,000 conditioned upon the refund of all unperformed advance ticket sales to passengers made by such commuter air carrier or their agents.

b. The aggregate liability for the surety of all breaches of the conditions of the bond in no event shall exceed the principal sum of $10,000.

c. The surety on such bond may cancel such bond upon giving sixty days' notice in writing to the Commissioner, and thereafter the surety shall be relieved of the liability for any breach of conditions occurring after the effective date of cancellation.

d. Whenever a bond under this section ceases to be in effect for any reason, the commercial operations license shall be revoked.

e. The bond shall not enlarge upon or alter in any way the ticket contract between the commuter air carrier and its customers.

4. Aircraft. In the application, the commuter air carrier must inform the Commissioner of all aircraft (by factory make, model, year, "N" number, and the current Minnesota registration decal number) that the commuter air carrier intends to use within the state.

5. Schedules and rates. The commuter air carrier must submit a copy of its proposed schedules and its proposed passenger and freight rates with each application. No schedule or rate change shall be made without notifying the Commissioner as to such change at least ten days before such change is to go into effect.

6. The commuter air carrier shall file with the Commissioner a copy of all reports which it files with the Civil Aeronautics Board or its successor agencies, such filing to be done within ten days after such reports are filed with said agencies.

F. Insurance. The minimum insurance coverage for each aircraft shall be the types and amounts as specified by the Civil Aeronautics Board.

G. The applicant must meet the requirements of 14 MCAR § 1.3019.

14 MCAR § 1.3028 Commercial parachuting.

Any person engaged in parachuting for hire or compensation must be licensed in accordance with Minn. Stat. § 360.013, subd. 11 (1978), as a commercial operator. The applicant shall meet the requirements of 14 MCAR § 1.3019.

~~Chapter Five: §§ 1.3029-1.3031 Airmen.~~

~~14 MCAR § 1.3029 Pilot operating rules.~~

~~A. Pilot certificate. No person shall pilot a civil aircraft in this state unless he has in his personal possession at all times while piloting an aircraft a valid pilot certificate with appropriate ratings issued by the FAA or an appropriate and valid foreign pilot certificate. Such a certificate shall be presented for examination to any inspector of the FAA or state or local law enforcement officer, or a representative of the Department of Transportation upon request of such inspector or enforcement officer.~~

~~B. Medical certificate and renewal. No person shall pilot an aircraft under authority of a pilot certificate issued by the FAA unless he has in his personal possession at all times when piloting an aircraft a medical certificate showing that he has met the physical requirements appropriate to his rating within the following time limits.~~

~~1. Student or private pilot: 24 calendar months.~~

~~2. Commercial pilot: 12 calendar months, or 24 calendar months for operations requiring only a private pilot rating.~~

~~3. Airline transport pilot: 6 calendar months, or 12 calendar months for operations requiring only a commercial pilot rating, or 24 calendar months for operations requiring only a private pilot rating.~~

~~C. Operation during physical deficiency. A person shall not pilot any aircraft during a period of any known physical deficiency or increase in physical deficiency which would render him unable to meet the physical requirements prescribed for the issuance of his currently effective medical certificate.~~

~~14 MCAR § 1.3030 Student pilot limitations.~~

~~A. General limitations. No student pilot shall pilot an aircraft carrying a passenger or on an international flight or for~~

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~~compensation or hire or in furtherance of a business.~~

~~B. Requirements for first solo. A student pilot shall not operate an aircraft in solo flight until he is familiar with the pertinent provisions of Part 61 of the Federal Aviation Regulations (FAR) relating to the general and visual flight rules; and he has been found competent by a flight instructor to make such flight and authority therefor has been endorsed by such instructor on the student's pilot certificate for solo flight in that make and model of aircraft.~~

~~C. Flight area limitations. A student pilot shall not pilot an aircraft outside a local flying area designated by his flight instructor until his student pilot certificate is endorsed by an appropriately rated flight instructor who has determined that he is qualified to make a solo cross country flight in accordance with FAR.~~

~~D. Aircraft limitations. A student pilot shall not pilot an aircraft other than that of the category, class, and type which has been endorsed on his student certificate by a flight instructor.~~

~~E. Recent experience. A student pilot who has not piloted a powered aircraft within 90 days shall not pilot such aircraft in sole flight until he has passed a flight check given by a flight instructor and that fact has been endorsed by such instructor in the student pilot's logbook.~~

~~F. Endorsement of student pilot certificate. A flight instructor shall endorse the certificate of any student pilot for sole flight or flights in different categories, classes, and types of aircraft only if he has determined that the student is competent to exercise such privileges with safety, and for cross country flight only if he has additionally determined that the student has an elementary knowledge of aeronautical charts, meteorological data, and the use of a magnetic compass, in accordance with FAR.~~

~~14 MCAR § 1.3031 Private and commercial pilots.~~

~~A. Private pilot. A private pilot shall not pilot aircraft for compensation or hire; except that he may pilot aircraft in connection with any business or employment in which he is engaged, if the flight is merely incidental thereto and does not involve the carrying of persons or property for compensation or hire, and an aircraft salesman holding a private pilot rating may demonstrate aircraft in flight to a prospective purchaser if he has at least 200 hours of flight time.~~

~~B. Commercial pilot. A commercial pilot may pilot aircraft for hire.~~

~~C. Airline transport pilot. An airline transport pilot may exercise the privileges of a commercial pilot with an instrument rating.~~

~~D. Rating requirements. A private or commercial pilot shall not pilot an aircraft carrying passengers other than an aircraft of the type and class for which he is rated, but may pilot other aircraft without passengers unless limitations placed on his certificate prohibit him from doing so.~~

~~(NOTE: Nothing contained in this section shall be construed as relieving the restrictions with respect to private pilots operating aircraft for hire.)~~

~~E. Flight instruction limitations. This section governs flight instruction as follows:~~

~~1. Aircraft. Aircraft shall be equipped with fully functioning dual controls.~~

~~2. Flight time. A flight instructor shall not give more than 8 hours of dual flight instruction in any one day and not more than 36 hours of dual flight instruction in any 7 day week.~~

~~F. Instrument flight limitations. A pilot shall not pilot aircraft under instrument flight rules unless he holds a valid instrument rating issued by the FAA and meets the requirements set forth in C. below.~~

~~G. Recent flight experience. No person may operate an aircraft under 14 MCAR § 1.0031 unless he meets the requirements set forth in "Recent Flight Experience Pilot in Command" as set forth in FAR 61.57.~~

Chapter Five § 1.3029: Flying Clubs

14 MCAR § 1.3029 Flying clubs.

A. Flying club.

1. "Flying club" means any person other than an individual which neither for profit nor compensation, owns, leases, or uses one or more aircraft for the purpose of instruction, business, or pleasure.

2. Intent. A flying club is intended as benefiting the members of the group for pilot proficiency or instruction, or personal business use, or pleasure flying.

B. Registration. Each flying club shall register annually with the Commissioner. This registration shall report conditions as of December 31 of each year, and shall be filed with the Commissioner by January 31 of each year. This registration report shall include the following:

1. The name and address of the flying club, the airport or airports at which its aircraft are based, and the make, model year, "N" number, and the current Minnesota registration decal number of the aircraft that the club either owned or used during the past calendar year.

2. The form of organization of the flying club — that is, whether it is a corporation or a partnership.

3. The name, home address and phone number, and business address and phone number of the Club Safety and Operations Officer.

4. The name of the club's insurance company, the policy number and its expiration date, and the amounts and types of coverage.

5. The amount or share in club assets held by each member of the club.

6. A statement describing what remuneration was paid to members of the club, monthly and annually, during the

preceding calendar year, a description of the services rendered by such members to the club, and a description of the goods sold by such member of the club.

C. Club Safety and Operations Officer. Every flying club must appoint a Club Safety and Operations Officer and set forth his or her duties in their operating rules or bylaws:

D. Responsibilities of the Club Safety and Operations Officer. The Club Safety and Operations Officer shall be responsible for the record of the club's operation. These records shall be up to date and in an orderly form and shall contain the following information:

1. Names and addresses of all current members.

2. If the flying club is a corporation, then the articles of incorporation and all amendments thereto, the current bylaws, minutes of corporation, and all shareholder agreements. If the flying club is a partnership, then the current articles of partnership and all current partnership agreements.

3. All club operating rules.

4. The share in club assets held by each member, stated by percentage or dollars.

5. The voting rights of each member, stated by percentage or number of votes.

6. The rights of each member to the assets of the club, stated by percentage or dollars, in case of dissolution of the club if a corporation, and in case of termination of the club, if a partnership.

7. A statement of financial condition of the flying club at the end of its preceding fiscal year, or at the end of its preceding calendar year, as the case may be, showing the assets and liabilities of the club.

8. An operating statement of the club for the preceding fiscal year, or the preceding calendar year, as the case may be, showing the profits or losses, or a statement of receipts and disbursements, of the club, as the case may be, for that period of time.

E. Inspection of records. The Commissioner, or any employees of the department designated by him, shall have the right to inspect the books and record of any flying club, including but not limited to, the records referred to above.

F. Assets. The word "assets" when used herein, shall mean property which the flying club owns, in whole or in part, or over which it has control, including the club's interest in any owned, rented or leased aircraft.

G. Flying clubs can be deemed to be commercial operations as defined in Minn. Stat. § 360.013, subd. 11. A flying club shall be considered to be engaged in commercial operations and therefore a commercial operations license shall be required:

1. If any of the club's assets are used by members of the club who:

a. Do not have a bona fide and significant percentage of the property interest in the assets of the club; or

b. Hold property interest in the club's assets, which property interest is subject to an unreasonable forfeiture; however, a club may set forth in its operating rules and bylaws any reasonable penalties and any reasonable forfeitures so long as the purpose and the actual effect thereof is to enforce valid clubs rules; or

2. If the property interest of any member of the club in the club's assets is not transferrable; however, the transfer of such property interest may be subject to such reasonable conditions as the club deems reasonably necessary to ensure discipline and payment of dues among its members; or

3. If any member of the club receives a pecuniary gain or receives any special benefits, which are in excess of the reasonable value of the services rendered to the club by said member, or are in excess of the reasonable value of the goods sold to the club by said member; however, this rule does not prohibit a flying club from paying one or more of its members a reasonable amount for services such as bookkeeping, secretarial, managerial, maintenance and administrative duties of the flying club; or

4. If the club charters, leases or rents their aircraft or any interest in their aircraft to any persons or organizations other than fully-qualified members of said club; provided, however, that this paragraph shall not prohibit flying clubs from leasing club aircraft to properly licensed commercial operators; or

5. If the club provides for, or allows, memberships with a duration of less than 90 days; or

6. If the club advertises, represents, or holds itself out as giving or offering to give, or does in fact provide or arrange for, "air instruction" as an "air school" (see Minn. Stat. § 360.13, subs. 16 and 17 (1967)), provided, however, that this rule does not prohibit a club from providing or arranging for "air instruction," so long as it is not for compensation or hire directly or indirectly.

7. If a person or persons, who are members of a flying club (lessors) lease an aircraft to that flying club (lessee).

8. If lessor, as described in paragraph 7 above, gives air instruction; whether free or for compensation to members of that flying club.

~~**Chapter Six: §§ 1.3032-1.3034**~~

~~**14 MCAR § 1.3032 General air traffic rules.**~~

~~(NOTE: The statements contained in the notes are intended~~

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as explanations only and shall not be construed as official interpretations of the regulations.)

A. Scope. The air traffic rules in this part apply to aircraft operated anywhere in Minnesota except;

1. Aircraft engaged in special flight operations, requiring deviation from these rules, which are conducted in accordance with the terms and conditions of a certificate of waiver issued by the FAA, and in accordance with the provisions of a permit issued pursuant to the laws of this state.

B. Authority of the pilot. The pilot in command of the aircraft shall be directly responsible for its operation and shall have final authority as to operation of the aircraft. In emergency situations which require immediate decision and action, the pilot may deviate from the rules prescribed herein to the extent required by conditions of safety. When such emergency authority is exercised, the pilot, upon request of the Commissioner, shall file a written report of such deviation.

C. Letdown procedure. No person may make an instrument letdown on an airport served by a state owned radio navigation aid except when using a procedure approved by the Administrator of the Federal Aviation Administration.

14 MCAR § 1.3033 General flight rules.

A. Application. Aircraft shall be operated at all times in compliance with the following general flight rules and also in compliance with either the visual flight rules or the instrument flight rules, whichever are applicable.

B. Preflight action. Before beginning a flight, the pilot in command of the aircraft shall familiarize himself with all available information appropriate to the intended operation. Preflight action for flights away from the vicinity of an airport, and for all IFR flights, shall include a careful study of available current weather reports and forecasts, taking into consideration fuel requirements, an alternate course of action if the flight cannot be completed as planned, and also any known traffic delays of which he has been advised by air traffic control.

C. Careless and reckless operation. No person shall operate an aircraft in a careless or reckless manner so as to endanger the life or property of others either in the air or on an airport.

(NOTE: Examples of aircraft operation which may endanger the lives or property of others are as follows:

1. Any person who "buzzes," dives on, or flies in close proximity to a farm, home, any structure, vehicle, vessel, or group of persons on the ground. In rural districts, the flight of aircraft at low altitude often causes injury to livestock. A pilot who engages in careless and reckless flying and who does not own the aircraft which he is flying, unduly endangers the aircraft, the property of another.

2. The operation of aircraft at an insufficient altitude endangers persons or property on the surface or passengers within the aircraft. Such flight may also constitute a violation of 14 MCAR § 1.3033 H.

3. Lack of vigilance by the pilot to observe other air traffic. In this respect, the pilot must clear his position prior to starting any maneuver, either on the ground or in flight.

4. Passing other aircraft too closely.

5. An operation conducted above a cloud layer in accordance with VFR minimums which results in the pilot becoming involved in instrument flight, unless the pilot possesses a valid instrument rating, the aircraft is properly equipped for instrument flight, and all IFR requirements are observed.)

D. Airspace restricted areas. The Commissioner may designate as a danger area, an area within which he has determined that a hazard to aircraft in flight exists. No person shall operate an aircraft within a restricted area or danger area unless permission for such operation has been issued by appropriate authority.

E. Right of way. An aircraft which is obligated by the following rules to keep out of the way of another shall avoid passing over or under the other, or crossing ahead of it unless passing well clear. (NOTE: Right of way rules do not apply when, for reasons beyond the pilot's control, aircraft cannot be seen due to restrictions of visibility. The aircraft which has the right of way will normally maintain its course and speed but nothing in these rules relieves the pilot from the responsibility for taking such action that will best avert a collision.

1. Distress. An aircraft in distress has the right of way over all other air traffic.

2. Converging. Aircraft converging shall give way to other aircraft of a different category in the following order: airplanes and rotocraft shall give way to airships, gliders and balloons, airships shall give way to gliders and balloons, gliders shall give way to balloons. When two or more aircraft of the same category are converging at approximately the same altitude, each aircraft shall give way to the other which is on its right. In any event, mechanically driven aircraft shall give way to aircraft which are seen to be towing or refuling other aircraft.

(NOTE: In effect, an aircraft will give way to another of a different class which is less maneuverable and is unable to take as effective action to avoid collision. For this reason, aircraft towing or refueling other aircraft are given the right of way.)

3. Approaching head on. When two aircraft are approaching head on, or approximately so, each shall alter its course to the right.

4. Overtaking. An aircraft that is being overtaken has the right of way, and the overtaking aircraft, whether climbing, descending or in horizontal flight, shall keep out of the way of the other aircraft by altering its course to the right, and no subsequent change in the relative positions of the aircraft shall absolve the overtaking aircraft from this obligation until it is entirely passed and clear.

(NOTE: Passing an overtaken aircraft on the right is required because the pilot in side by side, dual control aircraft is

seated on the left, and has a better view of that side. Further, in narrow traffic lanes, passing on the left of an overtaken aircraft would place the overtaking aircraft in the path of the oncoming traffic.)

5. Landing. Aircraft, while on final approach to land, or while landing, have the right of way over other aircraft in flight or operating on the surface. When two or more aircraft are approaching an airport for the purpose of landing, the aircraft at the lower altitude has the right of way, but it shall not take advantage of this rule to cut in front of another which is on final approach to land, or to overtake that aircraft.

(NOTE: Pilots must recognize that once committed to a landing in certain aircraft, the pilot has little chance to avoid other aircraft which may interfere with that landing; therefore, careful observance of this rule is important to the safety of all concerned.)

F. Proximity of aircraft. No person shall operate an aircraft in such proximity to other aircraft as to create a collision hazard. No person shall operate an aircraft in formation flight when passengers are carried for hire, except when it is required for parachuting operations. No aircraft shall be operated in formation flight except by prearrangement between the pilots in command of such aircraft.

G. Aerobatic flight. No person shall engage in aerobatic flight:

1. Over congested areas of cities, towns, settlements, or over an open air assembly of persons.

2. Within any control zone or federal airway.

3. When the flight visibility is less than 3 miles.

4. Below an altitude of 1,500 feet above the surface.

(NOTE: Aerobatic maneuvers performed over a congested area or an open air assembly of persons, or in areas where considerable air traffic exists, create an undue hazard to persons or property. Flight visibility of at least 3 miles is believed to be a prerequisite to aerobatic flight in order that the pilot, after scanning the entire vicinity, may be reasonably assured that no other aircraft is within dangerous proximity prior to performing such maneuvers.)

H. Minimum safe altitudes. Except when necessary for takeoffs or landing, no person shall operate an aircraft below the following altitudes:

1. At an altitude which will permit, in the event of the failure of a power unit, an emergency landing without undue hazard to persons or property on the surface.

2. Over congested areas. Over the congested areas of cities, towns, or settlements, or over an open air assembly of persons, an altitude of 1,000 feet above the highest obstacle within a horizontal radius of 2,000 feet from the aircraft. Helicopters may be flown at less than the minimum prescribed herein if such operations are conducted without hazard to persons or property on the surface and in accordance with 14 MCAR § 1.3033 A.; however, the Commissioner, in the interest of safety, may prescribe specific routes and altitudes for such operations, in which event helicopters shall conform thereto.

(NOTE: This rule recognizes the special flight characteristics of the helicopter which can accomplish an emergency landing within a relatively small space. However, if a helicopter is flown over the congested area of a city, town or settlement at less than 1,000 feet above the highest obstacle, the pilot is required to fly with due regard to places in which an emergency landing can be made with safety, and, further, to maintain an altitude along the flight path so selected from which such an emergency landing can be effected at any time.)

3. Over other than congested areas. An altitude of 500 feet above the surface, except over open water or sparsely populated areas. In such event, the aircraft shall not be operated closer than 500 feet to any person, vessel, vehicle, or structure. Helicopters may be flown at less than the minimums prescribed herein if such operations are conducted without hazard to persons or property on the surface and in accordance with 14 MCAR § 1.3033 A.

(NOTE: When flight is necessary at an altitude of less than 500 feet above the surface, the pilot must avoid creating any hazard to persons or property on the surface which may result from such flight. In no event, should the pilot expose his passengers to unnecessary hazard while engaging in flight at low altitude. The maneuverability of the helicopter permits safe flight below the minimums required in 14 MCAR § 1.3033 H., provided good judgment and caution are exercised by the pilot.)

4. IFR operations. No pilot shall fly at an altitude less than the minimum IFR altitude established by the FAA for that portion of the route over which the operation is conducted. Such altitude shall be that which the safe conduct of flight permits or requires, considering the character of the terrain being traversed, the meteorological services and navigational facilities available, and other flight conditions. Where the FAA has not established such a minimum, operations shall be conducted at not less than 1,000 feet above the highest obstacle within a horizontal distance of 5 miles from the center of the course intended to be flown.

I. Operation on and in the vicinity of an airport. Aircraft shall be operated on and in the vicinity of an airport in accordance with the following rules:

1. When approaching for landing, all turns shall be made to the left unless the airport displays standard visual

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markings approved by the Commissioner and which indicate that all turns are to be made to the right, or unless otherwise authorized by air traffic control.

(NOTE: Where right hand turns and clockwise flow of traffic are desirable in the interest of safety, airport markings visible from the air will inform the transient pilots of the necessity for making turns to the right.)

2. At airports where there is a control tower in operation, two way communication shall be maintained with the control tower for traffic control instruction. In case of radio failure, visual instructions may be issued. On airports without control towers but which have an operative FAA Flight Service Station, when within a 5 statute mile radius, if the aircraft radio equipment so allows, maintain two way radio communication between the aircraft and the station. If the aircraft radio equipment allows only reception from the station, monitor the station frequency.

3. Aircraft operating from an airport shall conform to the traffic patterns prescribed for that airport.

4. The Commissioner may, when necessary in the interest of safety, prescribe traffic patterns for an airport which shall supersede any other traffic patterns previously prescribed.

J. Air traffic control instructions. No person shall operate an aircraft contrary to air traffic control instructions in areas where air traffic control is exercised.

K. Water operations. An aircraft operated on the open water shall, insofar as possible, keep clear of all vessels and avoid impeding their navigation. The following rules shall be observed with respect to other aircraft or vessels operated on the water:

1. Crossing. The aircraft or vessel which has the other on its right shall give way so as to keep well clear.

2. Approaching head on. When aircraft, or an aircraft and a vessel, approach head on, or approximately so, each shall alter its course to the right to keep well clear.

3. Overtaking. The aircraft or vessel which is being overtaken has the right of way, and the overtaking aircraft shall alter its course to keep well clear.

4. Special circumstances. When two aircraft, or an aircraft and a vessel, approach so as to involve risk of collision, each shall proceed with careful regard to existing circumstances and conditions including the limitations of the respective craft.

5. All approaches to and take offs from the water area shall be made in such a manner as to clear all structures on the land by at least 100 feet, and wherever the area of the body of water will permit, such landing and takeoffs shall be made at a distance of not less than 300 feet, both laterally and vertically, from any boat or person on the surface of the water, or as near to 300 feet as the area of the water will permit.

(NOTE: The rules for operating aircraft on the surface of the water conform to marine rules for the operation of vessels. The "special circumstances" rule is provided for situations wherein it may be impracticable or hazardous for a vessel or another aircraft to bear to the right because of depth of waterway, wind conditions, or other circumstances.)

L. Aircraft lights. Between sunset and sunrise:

1. All aircraft in flight of operated on the ground or under way on the water shall display position lights.

2. All aircraft parked or moved within or in dangerous proximity to that portion of any airport used for, or available to, night flight operations, shall be clearly illuminated or lighted, unless the aircraft are parked or moved in an area marked with obstruction lights.

3. All aircraft at anchor shall display anchor lights, unless in an area within which lights are not required for vessels at anchor.

(NOTE: Aircraft must display appropriate lights on the surface of the water between the hours of sunset and sunrise in order to conform to marine rules.)

14 MCAR § 1.3034 Visual flight rules and instrument flight rules in Minnesota, all aircraft shall be operated in compliance with the Visual and Instrument Flight Rules as stated in FAR Part 91.

Chapter Six § 1.3030: Parachuting and Skydiving

14 MCAR § 1.3030 Parachuting and skydiving

A. All parachute jumps performed in the State of Minnesota must comply with all safety and be conducted in accordance with Federal Aviation Regulation Part 105.

B. For parachute jumps that occur at an airport, the airport manager/owner shall hold the control authority and responsibility to close and open the airport.

C. Parachute jumps may not be performed at a public-owned airport unless such jump is part of an airshow or other event in which a waiver has been granted by the Federal Aviation Administration, or unless permission has been granted by the Commissioner.

1. If the parachute jump requires the permission of the Commissioner, notification must be made ten days in advance.

2. A public-owned airport shall be closed during a parachute jump, but not for more than two hours in any 24-hour period.

D. Permanent Drop Zones. A permit shall be required and approved by the Commissioner for parachuting areas designated as permanent drop zones. A permanent drop zone shall be permitted for use by parachutists for one year from the date of permit unless suspended or revoked by the Commissioner.

1. A permanent drop zone permit will be issued when it is shown that the use of the site does not:

a. Impose undue hazards to persons or property.

b. Endanger the users or use of existing surface communication or transportation.

2. Application for renewal of a permanent drop zone permit shall be submitted annually.

3. A permanent drop zone may be located at a privately-owned airport.

4. The person or organization must show that they have the permission of the property owner.

5. A permanent drop zone shall be depicted on all aeronautical charts and NOTAMS shall be filed when applicable.

~~Chapter Seven: §§ 1.3035-1.3039 Basic Safety Regulations Governing Parachuting and Skydiving~~

~~14 MCAR § 1.3035 Definitions.~~

~~A. Parachute. A device used or intended to be used to retard the fall of a body or object through the air.~~

~~B. Automatic release. A device whereby the main or reserve parachute is automatically opened at a preset altitude or time span after activation.~~

~~C. Student parachutist. A person who does not hold or is not qualified to hold a U.S.P.A. (United States Parachute Association) or an F.A.I. (Federation Aeronautique Internationale) license.~~

~~D. Parachutist. A person who holds or is qualfied to hold a U.S.P.A. Class A, B, C, or D license or an F.A.I. license.~~

~~E. Equivalent of a license. A parachutist who has fully completed his qualifications for a license or rating and has had entry to that effect made in his personal log by the Club Safety Officer, the Area Safety Officer, instructor, or an authorized employee of the Department of Transportation.~~

~~F. Equivalent of a Class A license. A parachutist who has completed all of the following requirements:~~

~~1. Made at least 25 free fall jumps including:~~

~~12 stable delays of at least 10 seconds~~
~~6 stable delays of at least 20 seconds~~
~~3 stable delays of at least 30 seconds~~

~~2. Landed within 50 meters of target center on 5 jumps with delays of at least 30 seconds.~~

~~3. Demonstrated ability to hold heading during free fall, and to make a 360 degree turn to both the right and left.~~

~~4. Demonstrated that he is qualified and able to jumpmaster himself to include independently selecting and properly using a correct exit and opening point.~~

~~5. Demonstrated that he is qualified to properly inspect (check) and adjust his own parachute equipment prior to a jump.~~

~~6. A logbook endorsement by a U.S.P.A. Instructor/Examiner, a U.S.P.A. Instructor, his Club Safety Officer or Assistant Safety Officer, that he has received training for unintentional water landings.~~

~~G. Equivalent of a Class B license. A parachutist who has completed all of the following:~~

~~1. Met all requirements for a Class A license.~~

~~2. Made at least 50 free fall jumps, including:~~

~~15 stable delays of at least 30 seconds~~
~~2 stable delays of at least 45 seconds~~

~~3. Able to complete two alternate 360 degrees flat turns to the right and left, a "Figure 8" followed by a back loop in free in 10 seconds or less.~~

~~4. Landed within 25 meters of target center on 10 jumps during which he selected the exit and opening points.~~

~~5. Demonstrated his ability to keep track of other canopies and remain a safe distance from them.~~

~~H. Equivalent of a Class C license. A parachutist who has completed all of the following:~~

~~1. Met all the requirements for a Class B license.~~

~~2. Made at least 100 free fall jumps, including:~~

~~30 stable delays of at least 30 seconds~~
~~5 stable delays of at least 45 seconds~~

~~3. Able to properly complete an International Series (Figure 8, back loop, Figure 8, back loop) in free fall in less than 18 seconds.~~

~~4. Demonstrated his ability to control his vertical rate of descent and horizontal movement, coordinating the two.~~

~~5. Landed within 15 meters of target center on 25 free fall jumps during which the parachutist selected the exit point.~~

~~6. Made one intentional night jump.~~

~~7. Made one intentional water jump.~~

~~I. Equivalent of a Class D license. A parachutist who has completed all of the following:~~

~~1. Met all the requirements of a Class C license.~~

~~2. Completed 200 controlled free fall jumps, including:~~

~~100 delays of at least 20 seconds~~
~~40 delays of at least 30 seconds~~
~~5 delays of at least 45 seconds~~
~~5 delays of at least 60 seconds~~

~~3. Able to properly complete the following maneuvers on heading: back loop, front loop, left turn, right turn, right barrel roll and left barrel roll in 18 seconds or less.~~

~~4. Landed within 2 meters of target center on 10 free~~

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fall delays during which the parachutist selected the exit and opening points.

5. Made one night jump with a delay of at least 20 seconds, with certification of prior night jump training.

J. Area Safety Officer (A.S.O.) must hold at least a Class C license or equivalent and must be appointed by the U.S.P.A. to supervise safety over a given area.

K. Club Safety Officer (C.S.O.) must hold at least a Class B license or equivalent and must be approved by the Area Safety Officer.

L. Public airport. Any airport licensed by the Commissioner as a public airport.

M. Controlled airspace. Airspace of defined dimensions within which air traffic control is exercised by the Federal Aviation Administration.

N. Congested area. Area over any city, town or settlement, or an open air assembly of persons. (NOTE: An area on the ground on which a pilot would not be able to make a forced landing without undue hazard to persons or property.)

O. Drop zone. The area into which a parachutist should reasonably expect to land.

14 MCAR § 1.3036 Safety regulations for parachuting.

A. A person engaging in parachuting in the State of Minnesota must be a member of a parachute jumping organization approved by the Commissioner or must be able to produce evidence that he has received instructions from an instructor and that such instructor authorized this person to engage in parachute jumping, or hold or be qualified to hold a U.S.P.A. or F.A.I. license.

B. Persons desiring to form a parachute jumping organization must submit training standards of student parachutists to the Commissioner for his approval. (NOTE: The training outline as recommended by the U.S.P.A. is recommended.) The minimum parachutist training program should cover the following: parachutes and associated equipment, exit techniques, stability, canopy manipulation, malfunctions, emergency procedures and landings. The instruction given by an instructor should be entered in the student's log and signed by such instructor.

C. All currently licensed parachute riggers must have FAA certificates.

D. No person may make a parachute jump, and no pilot in command of an aircraft may allow a parachute jump to be made from that aircraft over or into an unapproved drop zone in the State of Minnesota without notification to and permission from the Commissioner.

1. For parachute jumps onto or within three miles of any public airport, written approval of that airport's management must be submitted with the request for approval. Any drop zone for exhibition jumps must have prior approval from the Commissioner for such use.

(NOTE: For parachute jumps at any airport with a functioning control tower, controlled airspace or congested area, authorization must also be secured in accordance with FAR Part 105 of their regulations.)

2. If a new area not previously approved is requested, the request for approval must be received by the Commissioner at least ten working days in advance of the date of the jump to permit inspection of the area for approval or disapproval by the Commissioner.

E. All jumps must be recorded in the parachutist's personal logbook and also in the organization's master logbook. The personal logbook must be signed after each jump by a witnessing licensed parachutist or witnessing pilot. Master logbooks must show all jumps made, including jumps made by guests and visitors. Personal and organization logbooks shall be available for inspection by any federal, state or local enforcement officer.

F. Medical examination. Each person engaged in parachuting shall hold at least a valid statement issued by a practicing physician signed and dated within two years of any jump certifying that said person has had a physical examination or be on military jump status. A nonresident that is a person not residing in Minnesota, but wishing to jump in Minnesota at a sanctioned jump meet, may obtain a written waiver of this requirement from the department.

G. Age. Parachutists and student parachutists must have reached the age of legal majority, or be at least 16 years of age with written, notarized parental or legal guardian consent. It shall be the responsibility of the pilot of the aircraft or the Club Safety Officer to inspect personally the notarized consent documents of jumpers between 16 and legal majority.

H. Equipment. Each parachutist or student parachutist must be equipped as follows: two airworthy parachutes on a single harness consisting of a back pack with a main canopy and a chest pack with at least an approved TSO'd canopy, or tandom assembly. The chest pack (emergency chute) must be repacked according to FAA regulations by an FAA licensed parachute rigger. If a pilot chute is used in the chest pack, it shall be the spiral/vane type. Back pack should be packed in a deployment device. Parachutes must meet minimum federal safety standards set forth in FAA TSO C-23 or any other applicable federal regulations, or be approved by a rigger properly licensed by the FAA.

I. Instruments. For delayed falls of more than 20 seconds, an altimeter, stop watch, or an automatic opening device must be used. An altimeter may be used in conjunction with the stop watch. All student parachutists must use a recognized automatic release device for the main or reserve parachute. This automatic release device will be used by all jumpers until they are Class A qualified. (NOTE: Examples of automatic release devices: Sentinel, KAP 3, Military F1 B, and Hi Tec.)

J. Clothing. Boots, helmet, goggles, and adequate protective clothing must be worn by student jumpers. Gloves are mandatory if the temperature is below 40 degrees F. at jump altitude.

K. Mae West type or Coast Guard approved type flotation gear must be worn when parachuting into or within one mile of an open body of water. (An open body of water is defined as one in which a parachutist could possibly drown in the event he actually landed in it.) For planned water jumps, a manned rescue craft for each jumper must be in the target area. At least one lifeguard experienced in life saving techniques, including resuscitation, must be in each rescue craft. If such water jump area is approved as a water drop zone and the parachutists are qualified, no further notification will be required. Any new area will require approval by the Commissioner. All exhibition water jumps will require approval by the Commissioner.

L. Pilots and all other occupants must wear emergency parachutes while flying and dropping sport parachutists. Approved safety belts must be worn by parachute jumpers until the aircraft reaches an altitude of at least 1,000 feet above ground.

M. No wings, cloth extensions, or other forms of control surface that restrict the jumper's ability to activate his main or reserve parachute may be used.

N. A ground crew shall be on the drop zone during all jumps and instructed to stop jumps by prearranged signal in case of a sudden weather change, other aircraft in the drop zone area, or other emergency conditions. During actual jumps a target may be displayed on the field. Removal of the target is a signal to stop jumps and land aircraft immediately. Manned ground to air communications radio, panels, smoke, and lights at night are approved prearranged signal methods.

O. All injuries caused by parachuting which require treatment or examination by a physician shall be reported to the Commissioner within 24 hours. In case of a fatality the Commissioner must be notified immediately.

P. No person may make a parachute jump and no pilot in command of an aircraft may allow any person to make a parachute jump from that aircraft if that person appears to be:

1. Under the influence of intoxicating liquor.

2. Using any drug that affects his faculties in any way contrary to safety.

Q. Parachute jumps from within or through clouds are prohibited. No pilot in command of an aircraft may allow any person to make a parachute jump from that aircraft unless cloud conditions meet the following requirements:

1. Within controlled airspace at a distance less than 1,000 feet under or one mile horizontally from any cloud formation.

2. Outside the controlled airspace at a distance less than 500 feet under or 2,000 feet horizontally from any cloud formation.

R. Flight visibility. No person may make a parachute jump and no pilot in command of an aircraft may allow a parachute jump to be made from that aircraft:

1. Through any part of the controlled airspace when the flight visibility in that part is less than 5 miles.

2. Through any part of the airspace outside of the controlled airspace when flight visibility is less than 3 miles.

S. Minimum opening altitudes (above ground). Student parachutists. 2,500 feet; parachutists, 2,200 feet; Class C licensee, or equivalent, 2,000 feet. Intentional water jumps: 2,000 feet.

T. Maximum ground wind for student parachutists.

Steerable Canopy	Nonsteerable Canopy
First 15 jumps: 12 m.p.h.	First 15 jumps: 8 m.p.h.
Over 15 jumps: 18 m.p.h.	Over 15 jumps: 15 m.p.h.

U. Before a jump, wind direction and ground wind speed shall be determined by qualified personnel.

V. Night jumps shall be made only with the written approval of the Commissioner. Approval will only be considered for those jumpers holding a Class B, C, or D license, or equivalent. Clearance will be given by individual parachutist's name, not a general blanket clearance for any one group. Jumpers at night between sunset and sunrise must wear a bright light visible for at least three miles in all directions from the time the canopy opens until the surface is reached.

W. Whenever parachute jumps are in progress, the drop areas must be kept clear of spectators. Drop zones or areas used for parachuting shall be unobstructed, with the following minimum distances from the target to the nearest hazard: student parachutist, 300 meters; U.S.P.A. Class A and B license, or equivalent, 200 meters; U.S.P.A. Class C license, or equivalent, 100 meters; U.S.P.A. Class D license, or equivalent, 25 meters. A tree or bush less than 30 feet high is not considered a hazard. Ditches, telelphone and power lines, poles, towers, houses, buildings, hangars, and highways are hazards. All vehicles shall be kept clear of the drop zone.

All drop zones shall be approved by the Commissioner.

The organization must show that it has the approval of the drop zone owner.

X. If an aircraft to be used for hauling parachutists must be altered in any way, such as door removal, it must have FAA-STG approval or approved instructions for door removal for that particular aircraft prior to operation. This does not apply if the aircraft manufacturer has issued a service bulletin or other approved instruction for door removal. If a static line hookup is installed it must be done by an FAA certificated

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aircraft mechanic and an appropriate entry must be made in the aircraft log.

Y. Altitude classification and requirements.

1. Altitude classification:

Low: from 2,000 feet up to and including 14,500 feet MSL, providing field elevation is less than 2,000 feet.
Intermediate: from 14,500 feet MSL up to 20,000 feet above the ground.
High: over 20,000 feet above the ground.

2. Low altitude jumps may be made without special training or equipment, providing, the elapsed time from altitudes 8,000 feet up to 12,000 feet, including the exact time of exit from the aircraft, does not exceed 30 minutes. If elapsed time from or above 8,000 feet is expected to exceed 30 minutes, supplementary oxygen must be in use by each individual up to one second prior to exit from the aircraft. (NOTE: Any time oxygen is used it must be aviation type breathing oxygen.)

3. Intermediate altitude jumps may be made by Class B, C, D, or equivalent, license holders only. Each parachutist and all occupants must be on supplementary oxygen source at all times from ground up to time of exit.

4. High altitude jumps may be made by Class C and D, or equivalent experience, license holders only. They must have a current FAA Class 2 medical certificate. Each parachutist and all occupants must be on supplementary oxygen source at all times from ground up to point of exit and be equipped with individual supplementary oxygen source attached and functioning during free fall and be equipped with high altitude protective clothing.

5. For intermediate and high altitude jumps, each parachutist must have individual approval of the Commissioner.

Z. Exceptions. In any case where it is determined that the public interest and safety will not be adversely affected, the Commissioner may waive any of the requirements stated in 14 MCAR § 1.3039, subject to such conditions or limitations as may be necessary.

14 MCAR § 1.3037 Commercial parachute jumping exhibitions.

A. Any parachute organization making exhibition jumps for which a fee is charged or compensation is received must be licensed in accordance with Minn. Stat. § 360.013, subd. 11 (1957), as a commercial operator. The license shall indicate the jumpers by name authorized under this license. All named jumpers must hold at least a U.S.P.A. Class C license, or equivalent. In the case of a commercial jump, all safety regulations are applicable.

B. Any individual parachute jumper making exhibition jumps for which a fee is charged or compensation is received must be licensed in accordance with Minn. Stat. § 360.013, subd. 11 (1957), as a commercial operator. The license shall contain endorsement showing the phases of commercial operations the licensee is authorized to perform. To be licensed as a commercial parachutist, the applicant must hold at least a U.S.P.A. Class C license, or equivalent. In the case of a commercial jump, all safety regulations are applicable.

24 MCAR § 1.3038 Parachuting schools and clubs.

A. Every person or organization engaging in parachuting shall be licensed in accordance with Minn. Stat. § 360.013, subd. 11 (1957), as a commercial operator. There is no distinction made in these rules between a parachuting school and a parachuting club. The license shall contain endorsements showing the operations that the licensee is authorized to perform.

1. The organization shall keep and maintain complete and adequate records of the instruction given to all students, showing the date and time, the type of instruction given, and the name of the instructor. These records shall be available for inspection for at least a year after date of entry.

2. Curriculum. The organization must show to the satisfaction of Commissioner a curriculum so organized as to ensure that the student completing the course will receive a U.S.P.A. Class A rating, or equivalent. The instruction given by an instructor must be entered in the student's log and signed by such instructor. A copy of the curriculum shall be submitted by the organization with its application. (NOTE: The training outline as recommended by the United States Parachute Association is recommended.)

3. Rules and regulations. The organization shall establish and enforce the rules and regulations which shall govern its parachuting operation. These rules and regulations shall be prominently posted at its base of operation and a copy shall be submitted with the application.

4. Drop zone. The applicant must show a drop zone located outside controlled airspace. The drop zone to be used must be specifically approved by the Commissioner. The size must meet the minimum requirements for the jumpers using the drop zone in 14 MCAR § 1.3036 W. The organization shall show by written documentation that it has a right of access to the land to be used as a drop zone as owner, co owner, tenant, or by any other right of entry.

5. Instructors. The organization must show it has instructors who hold U.S.P.A. instructor certificates, and that its instruction is being supervised by said instructors.

6. All safety regulations heretofore outlined must be complied with.

7. Insurance. The organization applying for a parachuting training or school endorsement on his license must hold insurance contracts valid and in force for the duration of the license which provide coverage for each accident in the following types and amounts with a reliable insurance company or companies authorized to do business in the State of Minnesota.

a. $75,000 minimum per passenger seat for passenger liability.

b. $100,000 per person and $300,000 per accident minimum for aircraft, public liability for bodily injury.

c. $100,000 per plane for property damage.

8. Club Safety Officer. The organization must include in its commercial operations application the name of the Club Safety Officer, his qualifications, and an approval of him by the Area Safety Officer. The Club Safety Officer shall be personally responsible for maintaining and enforcing the rules and regulations set forth herein. The Club Safety Officer must be approved by the Commissioner before acting in that capacity. The Club Safety Officer, after receiving approval from the Commissioner, may submit up to two names of persons who are qualified as jumpmasters to act as Assistant Club Safety Officers. Such assistants must be approved by the Commissioner before acting in that capacity. The Assistant Club Safety Officers are charged with the same responsibilities as the Club Safety Officer. A Club Safety Officer or his assistant must be present whenever jumping is taking place by anyone not "A" licensed or having equivalent experience.

9. Articles of incorporation. The organization shall attach to its initial application a copy of its articles of incorporation and all amendments thereto or a copy of its partnership agreement, as the case may be, along with a copy of its operating rules and regulations. The organization shall immediately notify the Commissioner of any subsequent changes in such documents.

10. Members. At the time of the original application, the organization shall list the names and addresses of its members. On or before license renewal and each subsequent year the organization must send to the Commissioner a list of the names and addresses of its members, trainees and students.

11. If any parachuting school or organization can make an affirmative showing that it is not engaging in and will not engage in commercial operations or in any training for which a fee is charged or compensation is received, within subd. 11 of Minn. Stat. § 360.013, then, and in such event, such a school or organization may be exempted, on an annual basis, by the written permission of the Commissioner, from securing a commercial operations license. If the Commissioner grants such exemption, then no commercial operations license is necessary, but such school or organization, however, must comply with 14 MCAR § 1.3038 A., 4., 6., 8., 9., 10. If they do not apply annually for exemption and do not make a showing annually that they are not a commercial operation under said subd. 11, then a commercial operations license will be required.

14 MCAR § 1.3039 Reserved for future use.

Chapter Eight: §§ 1.3040-1.3041.

14 MCAR § 1.3040 Violations. Minn. Stat. § 360.022 (1973): "Any person violating any of the provisions of § 360.018, or any of the rules, regulations or orders issued pursuant to the provisions of § 360.015, shall be guilty of a misdemeanor, and each such violation, or in the case of continuing offenses, each day's violation shall constitute a separate offense."

14 MCAR § 1.3041 Suspension or revocation. Minn. Stat. § 360.018, subd. 1 (6) (1973): "The Commissioner is authorized to suspend or revoke any license or certificate of registration of an aircraft or licensee of commercial operations issued by him, or to refuse to issue any such license or certificate of registration, when he shall reasonably determine that any aircraft is not airworthy or that any licensee of commercial operations is not qualified, has engaged in advertising by means of false or deceptive statements, has been found guilty of gross incompetency or gross negligence, has been found guilty of fraud, dishonesty, forgery, or theft, has wilfully violated the provisions of §§ 360.013 to 360.075, the rules and regulations prescribed pursuant thereto, or any other statute of this state relating to aeronautics, or any act of Congress or any rule or regulation promulgated pursuant thereto, is addicted to the use of narcotics or other habit forming drug or to the excessive use of intoxicating liquor, has made any false statement in any application for registration of a federal license, certificate, or permit, or has been guilty of other conduct, acts, or practices dangerous to the public safety and the safety of those engaged in aeronautics."

Minn. Stat. § 360.018, subd. 10 (1973): "The Commissioner is empowered to suspend or revoke any certificate of approval or license issued by him when he shall determine that an airport, restricted landing area, or other air navigation facility is not being maintained or used in accordance with the provisions of Laws of 1945, Chapter 303, and the rules and regulations lawfully promulgated pursuant thereto."

Chapter Nine: § 1.3042.

14 MCAR § 1.3042 Firing of unmanned rockets.

A. Any unmanned rocket, except aerial firework displays and model rockets, are defined as rockets, using not more than four ounces of propellant or using a slow burning propellant, made of paper, wood or breakable plastic, containing no substantial metal parts and weighing not more than 16 ounces including the propellant.

B. Operating limitations. No person may operate an unmanned rocket under the following conditions:

1. In a manner that creates a collision hazard with other aircraft.

2. In controlled airspace.

KEY: RULES SECTION — Underlining indicates additions to proposed rule language. Strike outs indicate deletions from proposed rule language. PROPOSED RULES SECTION — Underlining indicates additions to existing rule language. Strike outs indicate deletions from existing rule language. If a proposed rule is totally new, it is designated "all new material."

~~3. Within 5 miles of the boundary of any public airport.~~

~~4. At any altitude where clouds or obscuring phenomena of more than 5/10 coverage prevail.~~

~~5. At any altitude where the horizontal visibility is less than 5 miles.~~

~~6. Into any cloud.~~

~~7. Within 1,500 feet of any person or property that is not associated with the operation.~~

~~8. At night.~~

~~C. Exceptions. In any case where it is determined that the public interest and safety will not be adversely affected, the Commissioner may waive any of the requirements stated in Chapter Nine, 14 MCAR § 1.3042 B., subject to such conditions or limitations as may be necessary.~~

Chapter Seven ~~Chapter Ten~~ § 1.3031: ~~§ 1.3043 General~~ Repealer

14 MCAR § 1.3033 ~~§ 1.3043 General~~ Repealer. All rules ~~and regulations~~ of the Department of ~~Aeronautics~~ Transportation, Aeronautics Division, promulgated prior to the date thereof are hereby repealed.

SUNRISE over the aerial lift bridge in Duluth was captured in this 1940 photograph. (Courtesy of the Minnesota Historical Society)

SUPREME COURT

Decisions Filed Friday, October 12, 1979

Compiled by John McCarthy, Clerk

49148/271 **In the Matter of the Application of Edward Bartell and Barko Hydraulics, Incorporated, for a Permit to Place Fill in the Bed of Lake Superior, Appellants, vs. State of Minnesota. St. Louis County.**

The Federal Water Pollution Control Act Amendments of 1972, which added § 404 (Pub. L. No. 92-500, § 404, 86 Stat. 884), did not preempt state authority to regulate the dumping of fill material into navigable public waters.

Issues concerning the enforceability of the Department of Natural Resources' order to remove illegally placed fill from public waters and to restore the lakebed to its prefilled condition, including failure to join an indispensable party and failure to file a notice of lis pendens, are without merit or prematurely raised.

Further proceedings are required where the authority of the DNR to order removal of fill placed prior to 1973 is unclear and where the record is inadequate to establish the extent to which removal is required for restoration of the lakebed.

Remanded. Rogosheske, J. Took no part, Otis. J.

49355/314 **Crosby-Ironton Federation of Teachers, Local 1325, Appellant, vs Independent School District No. 182, Crosby-Ironton, Minnesota. Crow Wing County.**

Under the facts of this case, the trial court properly refused to resubmit the controversy to the arbitrator under Minn. Stat. § 572.16 (1978) because plaintiff's motion to resubmit the matter was not timely filed.

In any future arbitration case where a party has unilaterally contacted the arbitrator with written or oral statements, without copies thereof and notice to opposing parties, the court will presume that the award was procured by corruption, fraud or other undue means, making the award subject to vacation under Minn. Stat. § 572.19, subd. 1(1) (1978).

Affirmed. Yetka, J. Took no part, Otis. J.

49223/357 **Sandra Jones Ebert, petitioner, Appellant. vs. State of Minnesota. LeSueur County.**

Postconviction court did not err in denying petition for relief from a misdemeanor conviction based on a plea of guilty where petitioner failed to meet the burden of proving that she was entitled to such relief.

Affirmed. Yetka, J.

47672/290 (1978) **State of Minnesota vs. Carl Joseph Colsch, Jr., Appellant. Houston County.**

Constructive possession of a controlled substance may be established by showing that the defendant at the time was consciously exercising dominion over the place of discovery even though others also had access.

Defendant's contention that a warrantless search condition of probation is unconstitutional does not present a justiciable controversy because no search has been conducted pursuant to the condition and therefore any injury sustained by defendant is merely hypothetical and speculative.

Affirmed. Scott, J.

48643, 48644/358 **State of Minnesota vs. Sam Richards, Appellant, Stanley R. Richards, Appellant. Chisago County.**

Conservation officers did not violate defendants' Fourth Amendment rights in stopping their truck to investigate possible game violations or in entering the vehicle and seizing items after their observations through the window of the vehicle gave them probable cause to search and seize; similarly, the officers did not violate defendants' rights in taking an inventory of the vehicle driven by defendants after they seized the vehicle pursuant to the forfeiture statute for game violations.

Evidence of defendants' guilt was legally sufficient.

Affirmed. Scott, J.

49417/363 **State of Minnesota vs. Danile Joseph Hittle, Appellant. Cass County.**

Petitioner seeing postconviction relief from convictions based on negotiated guilty pleas made while represented by counsel, failed to demonstrate that he should be permitted to withdraw his pleas.

Affirmed. Scott, J.

49311/370 **State of Minnesota vs. Bradley Keith Yaritz, Appellant. Ramsey County.**

Affidavit of officer who obtained warrant to search defendant's residence contained sufficient information obtained by independent police observation to establish probable cause that marijuana would be found at defendant's residence, and defendant's Fourth Amendment rights were not violated by issuance of warrant.

Delay of 6 days in executing search warrant was not unreasonable or prejudicial, so as to constitute a violation of the statutory requirement that a search warrant be executed "forthwith" and in any event within 10 days after issuance, nor did the delay constitute a constitutional violation rendering stale the probable cause to believe that marijuana would be found at defendant's residence.

Affirmed. Scott, J.

49708/184 **State of Minnesota, by Edward Powderly, Martha Wasmund and Maxine Pfleuger, Plaintiffs, Maxine Pfleuger, Appellant, and Friends of History, Inc., etc., intervenor, Appellant, vs. Claire Erickson and Erickson Diversified Corp., City of Red Wing, John Doe and Mary Roe. Goodhue County.**

Friends of History, Inc., is not entitled to intervene in these proceedings under either Rule 24, Minnesota Rules of Civil Procedure, or Minn. St. § 116B.09 because the petition for intervention was not timely filed and there was no showing that its interests were not adequately represented by existing parties.

The undisputed evidence establishes that the row houses are historical resources within the meaning of the Minnesota Environmental Rights Act.

Defendants have not sustained their burden of proving that there is no feasible and prudent alternative and that demolition of the row houses is consistent with and reasonably required for the promotion of public health, safety, and welfare given the state's paramount concern for the protection of its natural resources.

We do not decide whether the demolition permit was validly issued, because demolition of the row houses is enjoined by operation of the Minnesota Environmental Rights Act.

Enjoining demolition of the row houses does not effect an unconstitutional taking of defendants' property without just compensation.

Affirmed in part, reversed in part, and remanded for issuance of permanent injunction. Wahl, J.

48559/71 James Pomush, et al, Appellants, vs. Brian J. McGroarty, et al. Ramsey County.

Since there was no error in the special verdict questions, and since plaintiff waived the theory of negligence as a matter of law by not arguing it below, the trial court's denial of plaintiff's motions for a new trial or for judgment notwithstanding the verdict is affirmed.

Affirmed. Per Curiam. Dissenting, Scott, J. Took no part, Otis and Todd, JJ.

50102/3820 Golden Valley State Bank vs. Douglas G. Anderson, Coon Rapids Chrysler-Plymouth, Inc., Appellant. Hennepin County.

Under Minn. Stat. § 168A.04, subd. 2 (1978), if an application for a certificate of title for an automobile refers to a vehicle purchased from a dealer, that dealer has the responsibility to indicate on the application those having a security interest in the automobile. Where this statutory duty is breached, a secured party may recover damages from the dealer for resulting injuries.

Affirmed. Per Curiam.

STATE CONTRACTS

Pursuant to the provisions of Minn. Stat. § 16.098, subd. 3, an agency must make reasonable effort to publicize the availability of any consultant services contract or professional and technical services contract which has an estimated cost of over $2,000.

Department of Administration procedures require that notice of any consultant services contract or professional and technical services contract which has an estimated cost of over $10,000 be printed in the *State Register*. These procedures also require that the following information be included in the notice: name of contact person, agency name and address, description of project and tasks, cost estimate, and final submission date of completed contract proposal.

Department of Education Special Services Division

Notice of Request for Proposals for the Production of Pace Tapes Utilized in Assessment Test Administration

A contractor is needed by the Department of Education to narrate and produce audio pace tapes for all instrument packages required for test administration in conjunction with both statewide testing and the "piggyback" option for winter and spring testing. It is anticipated that the contractor will produce seven master tapes and approximately 3,940 appropriate duplicates. The Department of Education will provide 90 minute cassette tapes for this latter purpose.

Interested persons are invited to seek further information from the department by contacting:

Dr. William B. McMillan,
Director of Assessment Section
Division of Special Services
State Department of Education
Capitol Square Building
550 Cedar Street
St. Paul, Minnesota 55101

The estimated contract will be approximately $1800 and responses to RFPs should be received no later than November 12, 1979.

Department of Health Personal Health Services Division

Notice of Request for Proposals for Development of Teen Conference

The Minnesota Department of Health is requesting proposals from interested agencies and persons to develop and implement a conference in cooperation with Minnesota teenagers, parents and youth serving organizations which will:

1. Provide an opportunity for teenages from throughout Minnesota to increase their awareness and knowledge of and accessibility to information and resources concerning teenage pregnancies.

2. To provide an opportunity for teenagers from throughout Minnesota to learn effective means of decision making.

3. To provide an opportunity for teenagers from throughout Minnesota to share, discuss, and correct myths and misconceptions regarding health, pregnancy, and family planning.

4. To enable teenagers from throughout Minnesota to review and comment on materials prepared for them relative to health, pregnancy, and family planning.

5. To enable teenagers from throughout Minnesota to recommend state and local actions relative to the issue of teenage pregnancy.

Interested persons may obtain a Request for Proposal and further information by submitting a written request to:

Judi Kapusinski, Supervisor
Family Planning Unit
Minnesota Department of Health
717 SE Delaware Street
Minneapolis, MN 55440

The deadline for the submission of completed proposals will be the close of the working day November 30, 1979.

Housing Finance Agency

Notice of Availability of Contract for A Real Estate Property Appraisal for Mortgage Purposes

The Minnesota Housing Finance Agency intends to engage the services of a professional real estate appraiser to express an opinion of value for a residential/commercial property in St. Cloud. The appraisal is to be completed by November 2, 1979.

The estimated fee for this project is $2,000 to $3,000.

Proposals must be received in writing by the agency no later than 12:00 noon, October 19, 1979. For detailed information, contact:

Meredith Lincoln
Housing Development Officer
Minnesota Housing Finance Agency
333 Sibley Street, Suite 200
St. Paul, Minnesota 55101
(612) 296-9824

Department of Natural Resources
Minerals Division

Notice of Request for Proposals for a Study of the Potential of Utilizing Peatlands for the Production of Cattails As An Energy Crop

Notice is hereby given that the Department of Natural Resources intends to engage the services of a consultant to establish cattails in peatland, monitor their productivity under various conditions, and prepare a report assessing the potential of utilizing mined and unmined peatlands for the production of cattails as a renewable energy source. Proposals must be submitted no later than November 12, 1979. The estimated amount of the contract is $15,000.

Direct inquiries to:

Department of Natural Resources
Division of Minerals
Box 45, Centennial Office Building
St. Paul, Minnesota 55155
Attn: Norman Aaseng
(612) 296-4807

Department of Natural Resources

Notice of Request for Proposals for Contract Real Property Appraisal Services

The State of Minnesota Department of Natural Resources invites qualified real estate appraisers to provide them with proposals for contract appraisal services of those lands currently known as "Tettegouche Camp" located in Lake County, consisting of 3,385 acres of timber, recreation, lakeshore property, lodge accommodations and other related improvements.

For the purposes of this contract, qualified real estate appraisers will meet one or more of the following qualifications:

I. Currently certified to the State's List of Qualified Appraisers.

II. Appraisal Designations: The following designations are seen as evidence of experience and proficiency as noted in paragraph III below.

a. Member of the American Institute (MAI)

b. Senior Residential Appraiser (SRA), Senior Real Property Appraiser (SRPA), or Senior Real Estate Analyst (SREA).

c. Accredited Rural Appraiser (ARA)

d. American Society of Appraisers (ASA)

e. Other designations with satisfactory evidence of a substantial coursework curriculum in Real Estate Appraising.

III. Non-designated appraisers:

A. Experience.

Non-designated appraisers with at least two years experience in Real Estate Appraising. Resume should relate the type of appraisal experience along with a listing of clientele.

B. Training.

Non-designated appraisers should have successfully completed one or more of the following courses.

a. AIREA — Course I, Course IA

b. SRA — Course 101, Course 201

c. American Farm Managers & Rural Appriasers — Rural Appraisal

C. Sample appraisal.

Appraisers who have not submitted any appraisals to Minnesota agencies within the past two years will be required to submit a sample appraisal done for a client. The sample appraisal is to be examined for compliance with generally recognized appraisal procedures.

The State of Minnesota, upon receiving the proposals, reserves the right to contract for appraisal services with those appraisers who will best serve the needs of the State, based on their qualifications, fee requiements and proposed completion dates as presented in the proposals received. The State also reserves the right to reject any or all proposals received.

For the purpose of this contract, the appraisal is to be completed in conformance with those Basic Appraisal Standards promulgated by the Department of Natural Resources and dated May 29, 1979, which together with the proposal, contract forms and property description may be obtained upon written request to the address below.

Proposals are to be received at the address below on or before November 16th, 1979.

Department of Natural Resources
Bureau of Land
Acquisition and Exchange Section
670 Space Center Building
444 Lafayette Road
St. Paul, Minnesota 55101
Telephone: (612) 296-7945

OFFICIAL NOTICES

Pursuant to the provisions of Minn. Stat. § 15.0412, subd. 6, an agency, in preparing proposed rules, may seek information or opinion from sources outside the agency. Notices of intent to solicit outside opinion must be published in the *State Register* and all interested persons afforded the opportunity to submit data or views on the subject, either orally or in writing.

The *State Register* also publishes other official notices of state agencies, notices of meetings, and matters of public interest.

Department of Agriculture Agronomy Services Division

Notice of Special Local Need Registration for Ortho Methoxychlor 2E

Pursuant to Minn. Stat § 18A.23 and 3 MCAR § 1.0338 B., the Minnesota Department of Agriculture on October 9, 1979, issued a Special Local Need Registration for Ortho Methoxychlor 2 manufactured by Chevron Chemical Company, Richmond, CA 94804.

The Commissioner of Agriculture, based upon information in the application, has deemed it in the public interest to issue such a registration, and has deemed that the information in the application indicates that the pesticide does not have the potential for unreasonable adverse environmental effects.

In addition to the uses prescribed on the product label, this Special Local Need Registration permits the use of this pesticide as a seed treatment on field corn seed in seed treating plants against the Indian Meal Moth.

The application and other data required under Minn. Stat. §§ 18A.22, subd. 2 (a-d), 18A.23, and 40 CFR 162.150-162.158, subpart B relative to this registration (identified as SLN # MN 79-0017) is on file for inspection at:

Minnesota Department of Agriculture
Division of Agronomy Services, Room 119
90 W. Plato Boulevard
St. Paul, Minnesota 55107
(612) 296-8379

A federal or state agency, a local unit of government, or any person or group of persons filing with the Commissioner a petition that contains the signatures and addresses of 500 or more individuals of legal voting age, has thirty (30) days to file written objections with the Commissioner of Agriculture regarding the issuance of this Special Local Need Registration. Upon receipt of such objections and when it is deemed in the best interest of the environment or the health, welfare, and safety of the public, the Commissioner of Agriculture shall order a hearing pursuant to Minn. Stat. ch. 15, for the purpose of revoking, amending, or upholding this registration.

October 9, 1979

Mark W. Seetin
Commissioner of Agriculture

Department of Economic Security

Notice of Intent to Establish an Inventory List of Potential Deliverers of Employment and Training Services

Notice is hereby given that the Office of Statewide CETA Coordination is currently establishing a list of potential employment and training services deliverers. In accordance with Comprehensive Employment and Training Act Regulations, 20 CFR 676.23 (c), it is this agency's intent to give special consideration, in the selection of subgrantees, to community-based organizations with programs of demonstrated effectiveness in the delivery of such services.

Subgrants are made in the process of carrying out special demonstration programs to be operated under the Special Grant to Governors (defined in 20 CFR 677.31 and authorized in Section 202 (b) (c) (d) (e) and 433 (c) of the Act). It is the purpose of the programs under the Special Grant to: (1) Provide supplemental vocational education assistance in areas served by Prime Sponsors; (2) Encourage coordination and establish linkages between Prime Sponsors and appropriate educational agencies and institutions; (3) Conduct Governor's coordination and special services within the state; (4) Provide support to State employment and training councils; and (5) Provide for statewide youth programs and services.

It is hereby requested that all potential deliverers of employment and training services who wish to be placed on the inventory list, submit the following information:

1. The name and address of the organization interested in receiving funds;

2. The types of services and activities the organization is interested in providing; and

3. The types of services and activities the organization has provided in the past, the number and types of people served, and any available documentation regarding the effectiveness of these services.

This information should be submitted to:

Minnesota Department of Economic Security
Office of Statewide CETA Coordination
690 American Center Building
150 E. Kellogg Boulevard
St. Paul, MN 55101
Attn: Grants Analyst

Further information can be obtained by writing to the above address or calling (612) 296-8357.

Ethical Practices Board

Notice of Regular Meeting

The next regular meeting of the Ethical Practices Board will be held Friday, October 26, 1979, at 9:30 a.m., Room 14, State Office Building, St. Paul, MN

Preliminary Agenda

1. Minutes (September 28, 1979)
2. Chairman's Report
3. Legal Counsel Report
4. Advisory Opinion — Communicating For Agriculture
5. Public Financing Discussion
6. Executive Director's Report
   a) Financial Statement
   b) Delinquency Reports — Economic Interest/Lobbyist/Campaign Finance
   c) Proposed Sample Ballot Rule
7. Other Business

Metropolitan Council

Metropolitan Significance Review

The Metropolitan Council has initiated a review of the possible "metropolitan significance" of the Amhurst housing development proposed by Centurion Corporation in St. Louis Park.

The Metropolitan Council commenced formal review on October 6.

The proposed 288-unit development will be located across from the Hopkins and Minnetonka city limits.

Minn. Stat. § 473.173 and regulations developed from it enable local governments to involve the Metropolitan Council in review of developments outside their local jurisdiction they think are of metropolitan significance.

The development cannot proceed while the Council is looking into the matter.

The Council encourages all individuals and interested parties to send information about the project to the Council by October 28.

A public hearing on the matter is tentatively set for November 26 at the Council offices.

Office of Secretary of State
Elections and Legislative Manual Division

Notice of Vacancies in Multi-member Agencies (Application and Appointment Procedures)

Notice is hereby given to the public that a vacancy has occurred in a multi-member state agency, pursuant to Minn. Stat. § 15.1597, subd. 4. Application forms may be obtained at the Office of Secretary of State, 180 State Office Building, St. Paul, MN 55155; (612) 296-2805. Application deadline is Tuesday, November 6, 1979.

Council for the Handicapped has two vacancies open immediately; one public member for a term expiring January 1983, and one service-provider member for a term expiring January 1980. The council advises the governor, legislature, service-providing agencies and the public on needs and potentials of persons with physical, mental or emotional disabilities. Thirty members, appointed by the Governor, include one member from each development region, ten service-providers, and twenty public members; at least fifteen shall be handicapped, or parents or guardians of handicapped persons. Meetings twice monthly; members receive $35 per diem plus expenses. For specific information contact Richard L. Ramberg, Executive Director, (612) 296-6785, Metro Square Bldg., St. Paul, MN 55101.

Advisory Council on Uniform Financial Accounting and Reporting Standards has one vacanncy open immediately for a professional member for a term expiring January, 1983. Member must be a Certified Public Accountant. The council provides the Board of Education with uniform accounting and reporting standards for school districts; formulates and recommends rules, changes in statutes, modifications of financial accounting codes, manuals, procedures and reporting forms. Thirteen members include: two employees of the State Department of Education, appointed by the Commissioner of Education; one licensed C.P.A., and nine school district employees appointed by the Board of Education. Meetings monthly in St. Paul; public employee members receive no compensation; others are compensated for expenses. For specific information: Stanley Tikkanen, Dept. of Education, 550 Cedar St., St. Paul, 55101 (612) 296-8640.

U.S. POSTAL SERVICE

STATEMENT OF OWNERSHIP, MANAGEMENT AND CIRCULATION

(Required by 39 U.S.C. 3685)

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MANAGING EDITOR *(Name and Address)*
Carol Anderson Porter, Suite 415 Hamm Bldg., 408 St. Peter Street, St. Paul, MN 55102

7. OWNER *(If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding 1 percent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a partnership or other unincorporated firm, its name and address, as well as that of each individual must be given.)*

NAME	ADDRESS
State of Minnesota	415 Hamm Bldg., 408 St. Peter Street, St. Paul, MN 55102

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PS Form 3526 Mar. 1977 *(Page 1)* (See instructions on reverse)

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