STATE OF MINNESOTA

COUNTY OF HENNEPIN

BEFORE THE MINNESOTA

COMMISSIONER OF HEALTH

Agency Exh. No. 17
File No. HLTH-82-012-SL
Date 7-29-82

In the Matter of Proposed Amendments to Rules Relating to Life Support Transportation Services and Repeal of Emergency Medical Technician Registration Rules

SUPPLEMENTARY STATEMENT

OF NEED AND REASONABLENESS

The Department of Health proposes to modify the amendment proposed at 7 MCAR § 1.630 D.7 by deleting all of proposed section D.7 and substituting the following language at 7 MCAR § 1.606 C.

C. Restrictions on transfer of patients. Basic life support transportation services may transport patients who are receiving intravenous therapy only when the following conditions are met:

1. Transportation is provided only between health care facilities; and

2. The intravenous therapy was established by the facility from which the patient is transported; and either

3. A physician, registered nurse, or paramedic accompanies the patient and rides in the patient compartment; or

4. The patient's physician provides written information and precautions to the ambulance service attendants about the intravenous therapy which the patient is receiving, the service maintains a copy of the written information in its files and the attendant is certified under 7 MCAR § 1.624 and has completed training approved by the medical advisor in the maintenance of intravenous therapy equipment.

After the final draft of proposed rules was published in the State Register, the Department received a number of phone calls from members of basic life support transportation services who provide the kind of transfer service which is addressed in 7 MCAR § 1.630 D.7. The persons who called feel that it is unreasonable and burdensome to require that all basic life support transportation services obtain a variance to provide a service which is now provided by almost all basic life support services and which is needed as often as this service is. This provision applies to patients who, though stable, are receiving drugs through an intravenous line which was established at the hospital. Most BLS services routinely transfer patients whose

medical condition has been stabilized from one medical facility to another to receive additional treatment or undergo diagnostic tests not available at the facility in which the patient is being treated.

Because these patients are receiving drugs there is some risk involved in transferring them. The BLS services feel that they now receive adequate training from local doctors or hospitals to enable them to monitor these patients during transfer. They also feel that the Department would be unable to manage the administration of several hundred variances for this one service and that they would be prevented from offering it.

Therefore, they have proposed that the Department continue to allow BLS services to offer this service but require that attendants be trained to monitor intravenous therapy equipment, that other safeguards be observed and that documentation of compliance with training and certification requirements be kept in the licensee's files.

The provision of this service is very widespread. If the BLS services were not able to offer it, either because the variance requirements were burdensome or because the Department could not manage the volume of paperwork which this variance would generate, patient care would suffer. Most rural areas depend on BLS services for patient transfers between medical facilities because there are no advanced life support services available.

The Department's medical director has approved deleting the variance requirement originally proposed. He feels that patients will be adequately protected by the requirements in the substitute proposal. The principal difference is that services will not be required to apply for permission (a variance) to offer this service; but may offer it as they wish, as long as they comply with requirements set out in the rule and document their compliance in their files. The licensees' files will be subject to inspection by the Commissioner to assure that the licensees comply with the restrictions in the rule.

The Department believes that this proposed modification is essentially a change in record-keeping. The substantive requirements as to training and certification of attendants, information provided to attendants by the physician, and restriction of transportation of patients receiving drugs to those being transported between facilities would still apply.

Therefore, although it is a matter of large importance to BLS services, it is actually a minor change in the proposed rules.

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STATEMENT OF NEED AND REASONABLENESS

The Commissioner of Health, pursuant to Minn. Stat. § 15.0412, presents facts establishing the need and reasonableness of the proposed amendments to rules relating to life support transportation services, 7 MCAR §§ 1.601-1.611, and the repeal of the emergency medical technician registration rules, 7 MCAR §§ 1.541-1.543.

A. Statutory Authority

Minn. Stat. § 144.804 requires the Commissioner of the Minnesota Department of Health to promulgate as rules, standards for the operation of life support transportation services, the certification of attendants, and the designation of primary service areas. Rules were originally adopted pursuant to this authority on April 21, 1980. The authority to adopt rules includes the authority to amend the rules at a later date.

B. General Statement of Need and Reasonableness.

The rules relating to life support transportation services were adopted by the Commissioner on April 21, 1980, filed with the Secretary of State on May 9, 1980, and published in the State Register on May 26, 1980. The rules are contained in 7 MCAR §§ 1.601-1.611. Amendments to those rules are proposed now

to resolve difficulties which arose in the enforcement of the rules, to clarify certain requirements and to create three levels of certification for ambulance attendants, in keeping with the national growth of the profession. The general need for regulation of life support transportation services was established in the original statement of need and reasonableness.

A number of persons in the medical professions, the training institutions and the life support transportation services identified various problems with the rules and requested consideration of amendments. A Life Support Transportation Service Rules Technical Advisory Group, representing the groups mentioned above, was established to assist the Department. The Technical Advisory Group had 27 members and met three times to review draft amendments. In addition, a subcommittee met specifically to discuss the extent to which basic life support transportation services should be restricted or prohibited from offering certain advanced treatments and procedures. All licensed life support transportation services were notified of the opportunity to suggest amendments and review drafts in the September and November, 1981, and May 1982 issues of EMS ACCESS, a bimonthly bulletin mailed to 2300 persons involved in EMS. (see attached exhibits) A panel discussion on proposed rule changes was held at the State EMS Conference in Minneapolis in December 1981. In March, copies of drafts were mailed to 500 services and individuals and the department received about a dozen comments in response. The amendments reflect the suggestions and comments of many people and organizations who work with life support transportation.

A number of changes have been made which affect only the form of the rules. These include renumbering throughout the rules, changing "shall" to "must" or "will," striking abbreviations and inserting the full words, striking the plural form of words where the singular is given, striking parentheses and making other grammatical changes recommended by the Office of the Revisor of Statutes. Citations to Minnesota Statutes have been changed from citations to chapters

to citations to specific sections. These changes are necessary to bring the rules into conformance with the form required by the Revisor's Office.(see attached letter)

7 MCAR § 1.601 Definitions.

The definitions of "ALS" and "BLS" have been stricken because the Revisor's Office has requested that we discontinue using abbreviations. We will use the phrases "advanced life support transportation service" and "basic life support transportation service" as requested by the Revisor of Statutes.

"Base of operations" is defined because the phrase is used repeatedly in several sections of the rules. Although it is defined in Minn. Stat. § 144.801, subd. 7, the definition is repeated here because most of the licensees do not have easy access to Minnesota Statutes and rely exclusively on the rules for guidance in their life support transportation activities. The base of operation is important because it is the fixed point from which the boundaries of a primary service area are measured. It is permanent and cannot be changed without a public hearing, while a substation may be a temporary location and can be relocated for any reason. In order to make compliance easy and because duplication of this language is crucial to the ability of the licensees to understand these rules, it is reasonable to repeat the definition in the rules.

"Basic cardiac life support" is defined to describe a specific set of skills used to restore or maintain breathing and circulation. The term is widely used by the medical professions and ambulance attendants. It is defined to denote specific skills for purposes of these rules.

"Central base of operation" is stricken because the phrase is no longer used in the rules and therefore doesn't need to be defined.

"Change in type of service" has been reworded so that its meaning is clearer. Under Minn. Stat. 144.802 a "change in type of service" triggers a license

hearing; therefore, it is necessary to specify what degree of change is meant. It is reasonable to treat a change from "basic life support" to "advanced life support" as a change in type of service because the change is a significant one in which the licensee would provide additional treatments and procedures, use invasive medical equipment, and employ attendants with higher levels of training. Therefore, the licensee should be re-examined to see if it meets the more stringent requirements. It is reasonable to exclude changes from advanced life support to basic life support because all the requirements for basic life support are already met by a licensee with an advanced life support license and no additional hearing would be needed to determine whether the applicant can comply.

"Communication base" is revised because the current definition is inaccurate. A communications base is the sum of the locations at which radio communication equipment is used to effect communication between the ambulance and medical facilities. This revision is a necessary clarification.

"Drug" is defined because it is repeatedly in the rules. The word drug was chosen because it was necessary to select a word which encompassed all substances affecting human functioning. Ambulance personnel use "drug," "medicine," "medication" and "pharmaceutical" interchangeably, but sometimes meaning different kinds of substances. Minn. Stat. § 144.804, subd. 3(b) refers to "intravenous fluids and certain pharmaceuticals" which will be provided by advanced life support service attendants. Because the rules were new in 1980, and were imposed on a system which had been in existence for many years, no attempt was made to define and restrict the substances which could be administered by either basic life support or advanced life support attendants. In order to establish a policy on drug administration, it is necessary to choose a term, use it consistently and cease using other terms with vague meanings. The term "drug" was chosen because it is all encompassing, and has a specific legal and medical meaning

set forth at Minn. Stat. § 151.01, subd. 5. Therefore, the use of the term in these rules will be consistent with the use of the term in the statutes. By using one word which encompasses all substances and restricting the use of all substances to advanced life support services, with certain exceptions which are specified in the rules, restrictions on administration of substances will be much clearer. The lack of such a definition would make the rule confusing and incomplete as licensees would not know what substances are considered drugs and therefore are restricted. Most licensees do not have statutes available in which they can look up the meaning of drug, so the repetition of the statutory definition is crucial to the ability of licensees to understand the definition and its affect.

"Emergency medical technician" is defined to denote a certain level of training signified by certification of completion of requirements imposed in 7 MCAR § 1.624. It simplifies references in the rules to persons with a certain uniform level of training.

"Intermediate emergency medical technician" defines a level of training and skill maintained by an emergency medical technician. This level of training is newly recognized nationally and in Minnesota among providers of pre-hospital emergency care. This level is defined to indicate competence in the performance of certain medical treatments and procedures which are recognized by the medical profession as advanced procedures.

"Intravenous infusion" is defined, for consistency, as defined in Dorland's Illustrated Medical Dictionary, Twenty-Fifth Edition, and to distinguish it from intravenous therapy which may be performed only by persons with advanced training.

"Intravenous therapy" is defined to distinguish it from intravenous infusions. Dorland's Medical Dictionary defines it as the introduction of therapeutic liquid agents directly into the venous circulation. It is reasonable to define it broadly because it includes restricted and non-restricted substances under these rules.

The definition of "medical advisor" is not new. It is restated in definition form from the text of the current rules. This is necessary so that the distinctions between "medical advisor" and "medical director" will be apparent.

"Medical control" has been amended so that it defines only the direct oral communication between the physician and the attendants in the field. This is a simplification of the current definition and is less confusing because it refers to only one specific type of medical direction. The indirect types of medical control are defined under "medical advisor" and "medical director."

The definition of "medical director" has been expanded so that it specifies the activities of all physicians who provide medical direction to all licensees which offer advanced treatments or procedures. This is necessary because the required activities specified in the definition safeguard the public and assure that the invasive, advanced procedures will be carried out under the direction of a physician and that the quality of treatment will be reviewed by a physician.

"Paramedic" is defined to simplify references to "paramedic emergency medical technician" in the rules and to indicate an advanced level of training.

"Parenteral" is defined to clarify its meaning and to distinguish this means of administration of drugs from oral administration.

"Program coordinator" is defined to describe the skills and experience which a program coordinator for emergency medical care training must have and to define his duties. The definition is based on a description contained in the U.S. Department of Transportation Course Guide for Emergency Medical Technician

training. The coordinator will serve as a liaison between the students, the faculty, and the hospital where clinical training occurs. The coordinator is responsible for the operation of the training program including the handling of applications, inventory and maintenance of equipment, faculty selection, coordination of classes and clinical training, coordination of examinations, monitoring of classes and provision of information to the public. This is a reasonable division of labor because it leaves medical direction to a physician and allows substantial administrative freedom to the program coordinator.

"Program medical director" is defined to explain the prerequisites for serving as a program medical director for emergency medical care training and the responsibilities which must be assumed. It is necessary to specify the requirements so that an adequate level of medical expertise will be available to students who wish to serve as life support transportation service attendants.

"Scheduled advanced life support transportation service" has been deleted because the definition is unnecessary. This definition is included in the following definition, "scheduled life support transportation service." Several words have been stricken from that definition to reduce its wordiness. The meaning of "scheduled life support ttansportation service" has not been changed.

"Substation" means a place where personnel and ambulances are based but which is not the principle place of business of the service. A substation might be a temporary or permanent location for ambulances and is used to provide better service to the licensee's primary service area. It is necessary to define more than one kind of location where personnel and equipment could be based and acknowledge the subsidiary and temporary nature of some of those locations.

"Triage" is defined for clarification. The definition is reasonable because it states the meaning which is commonly understood by persons who provide emergency medical care.

7 MCAR § 1.602 Applications for licensure.

Section A.1.b. has been amended to require that applicants for new or renewal licenses or for changes in licensure submit not only the address of the base of operation but also the address of all substations. This is a reasonable and necessary requirement because it enables the Department and the Health Systems Agencies to determine the applicant's ability to adequately serve the proposed primary service area or population and the effect the substation will have.

In Section A.1.e. the phrase "the type of action requested" has been stricken as unnecessary and vague. The remaining words clearly state what information must be provided.

In Section A.1.h. "a declaration of proposed primary service area according to the requirements of 7 MCAR § 1.608 F." has been stricken because it is repetitive. The same information is requested later in section A.1.r.

Section A.1.m. has been amended to require that applicants provide, in addition to the actual and imputed expenses, the projected capital costs and operating costs. This is necessary so that the Department and the Health Systems Agencies can determine whether the applicant is financially stable. Minn. Stat. § 144.802, subd. 3., (d)(5) requires that the Health Systems Agencies review applications for licenses and consider whether the benefit accruing to the public health would outweigh the costs associated with the proposed service, change in base of operation or expansion of a primary service area. In order to make this determination it is necessary to have information about the applicant's anticipated capital and operating costs.

Current sections A.2. and 3. and B.1. and B.1.e. have been stricken because they repeat requirements that are set out in A.1. and 2., and new section 3., and the renumbered sections B.1. and 2. Therefore, the stricken material is unnecessary.

Renumbered section A.1.r. has been amended to require a declaration of the proposed primary service area. This is reasonable because a description of the primary service area as well as a description of the features of it is needed to allow the Commissioner and local Health Services Agencies to determine whether any other licensee is serving that area and whether the applicant can adequately serve the area.

7 MCAR § 1.603 Personnel standards.

Section A. has been amended to provide that persons functioning as pilots of air ambulances don't need to meet the qualifications set out in A. for attendants of basic life support services. It is reasonable to except these persons from the standards set forth in A. because pilots cannot stop the plane and offer assistance as drivers might. New section B. sets forth the standards for air ambulance attendants.

Section A.2. has been amended to provide that emergency medical technician registration certificates issued by the Commissioner pursuant to Minnesota Statute § 214.13 are valid only until two years after the effective date of these rules. This is necessary because no registration certificates will be issued under Minn. Stat. § 214.13 after these rules take effect, or October of 1982, whichever is later. The certificates which are issued until these rules take effect will have an expiration date of up to two years from the effective date of these rules. These certificates are being phased out and will be replaced by certificates issued under 7 MCAR § 1.624. These certificates are being phased out because they are merely registration certificates.

The amended section 1.624 of these life support transportation service rules will establish comprehensive standardized requirements for receiving a basic emergency care certificate for emergency medical technicians.

Section A.1.a.(3), "Possess a current emergency certificate that complies with the provisions of 7 MCAR § 1.609," has been stricken because the amendments result in renumbering and Section 1.609 has been replaced by an expanded emergency care certificate section renumbered Section 1.624. Section A.1.a.(4). "Meets the qualifications of 7 MCAR § 1.604 A. for an advanced life support transportation service ambulance" is stricken because the section to which it refers has been renumbered.

Section A.1.b. which states that "The requirements set forth in Section 1.603 A.1.a. shall not apply to persons functioning as pilots of air ambulance." has been stricken because this requirement has been expressed in the previous section making the repetition unnecessary.

A new Section A.3. has been added which states "Possesses a current certificate issued pursuant to 7 MCAR § 1.624, 1.625 or 1.626." This is a consolidation of the three requirements which were stricken. It conforms to the proposed renumbering.

7 MCAR § 1.603 B., "Qualifications; air ambulance personnel." is a proposed new requirement in these rules. This rule would require the licensee to maintain documentation that each person who functions as an attendant of a basic life support air ambulance has received a certificate issued under 1.624, 1.625, or 1.626. Proposed section B. also requires that the attendant must have received training which has been approved by the licensee's medical advisor in the medical considerations specifically related to transporting patients by air. These include consideration of the physiological changes caused by flight that result from decreased atmospheric pressure, acceleration, noise and vibration. The additional requirements which are imposed on air ambulance personnel are reasonable and necessary because the transportation of patients by air carries with it greater hazards than the transportation of patients by land ambulance.

Federal Aviation Administration Advisory Circular No. AC 67-1 dated March 4, 1974, states that with very few exceptions any patient who can be transported by surface ambulance can be carried by air when appropriate precautions are taken. However, because the changes associated with flying may constitute additional hazards for patients, anyone involved in air ambulance operations should clear all patients with a physician knowledgeable in the effects of the flight environment. The Advisory Circular notes the following possible problems: decreased oxygen pressure; overall pressure decreases which may cause problems associated with gas expansion in body cavities or tissue spaces; difficulty with intravenous bottles in flight and the effect of altitude and pressure on the flow of intravenous fluids; pressure change problems associated with the use of air splints; problems associated with air turbulence, and the effect of turbulence on any traction device used in the air. The Advisory Circular suggests that the following areas should be studied to familiarize personnel with aeromedical evacuation:

(a) altitude physiology which includes basic gas laws, characteristics of the atmosphere, gas exchange between atmosphere and body tissue, characteristics of hyperventilation, stages of hypoxia, treatment of hypoxia, smoking, noise, vibration and other stresses and their effects on the body during flight, and

(b) types of and utilization of aircraft oxygen equipment.

The proposed rule that all attendants on air ambulances be trained and certified as EMTs at a minimum is justified because Federal Aviation Administration Regulation Title XIV, Part 135.91 (c) states that no certificate holder may allow any person other than a person trained in the use of medical oxygen equipment to connect or disconnect oxygen bottles or any other ancillary component while any passenger is aboard the aircraft. American Red Cross advanced first aid certificate holders are not trained to use oxygen and therefore are not qualified to serve as attendants on air ambulances.

The U.S.D.O.T., National Highway Traffic Safety Administration, and the American Medical Association Commission on Emergency Medical Services adopted air ambulance guidelines in 1981. These guidelines state that patients with impaired oxygenation or with increased risk from hypoxia must have enough supplemental oxygen and adequate flow rates for the duration of any exposure above 2000 feet mean sea level.

Because attendants with American Red Cross advanced first aid training are not trained in the use of oxygen equipment and oxygen administration, they are not appropriate personnel for air ambulances and their use on air ambulances may be illegal under federal regulations. EMTs and persons with more advanced training are trained to administer oxygen and therefore as an absolute minimum requirement attendants must be EMTs.

The American College of Surgeons Committee on Trauma has also adopted guidelines for air ambulance operations. These guidelines state that air ambulances must have one or more of the following attendants located in the patient compartment: physician licensed to practice medicine, registered nurse, or emergency medical technician-paramedic who holds a valid EMT paramedic certificate. Because of the variety of complications which can arise from the transportation by air of ill or injured persons, it is both reasonable and necessary to require additional training related to those specific areas of medicine which affect the air transportation of ill or injured patients.

7 MCAR § 1.604 Staffing standards; basic life support transportation services.

Changes in new Section A. are grammatical changes or result from renumbering and have no substantive affect on the application of the rules.

Section B. Medical advisor. This section requires that each licensee that operates air ambulances and by July 1, 1985, each licensee that operates land

ambulances must have a physician medical advisor. The requirement that each licensee that operates air ambulances have a physician medical advisor is a proposed new requirement and is justified in the section above relating to the complications of transporting ill or injured persons by air. Air ambulance services should have physician medical advisors immediately to protect the health and welfare of persons being transported by air.

The elements of new Section B. which delineate the responsibilities of the medical advisor have been stricken because these requirements are spelled out in the definition of medical advisor in 7 MCAR § 1.601 R.

The portion of the current rules coded 1.603 A.2.d. is stricken because this section has been rearranged and renumbered as D.

7 MCAR § 1.605. Quality of life support treatment.

Minnesota Statutes § 144.804, subd. 3, requires the Commissioner of Health to promulgate as rules standards for the operation of life support transportation services. Section 1.605 describes the responsibility of the licensee for the quality of the operation of the service. Attendants and drivers are required to have current certificates before serving on a life support transportation service. When they serve as drivers and attendants they are acting as agents of the licensee and it is the responsibility of the licensee to assure that his offer of service to the public is made within the bounds of the law. The licensee is responsible for assuring that equipment required by the rules is carried on the vehicle, and that attendants and drivers use only equipment that they are trained to use. This section requires the licensee to enforce these requirements.

It is reasonable to require the licensee to assure that attendants and drivers provide care that conforms to the general standard of care expected of persons who function as those attendants and drivers do because the licensee determines the standards for the operation of that service by the persons that

he hires or uses as volunteers. This rule requires the licensee to recognize that there is a general standard of care exercised by persons trained and certified as emergency medical technicians or American Red Cross Advanced First Aid card holders, and it requires him to impose on his attendants and drivers the duty to act in conformance with their training and certification for the benefit of the public served by the licensed ambulance service.

New section B. requires that each licensee establish and implement a procedure for responding to complaints. This is an operational requirement imposed under the authority of Minn. Stat. § 144.804, subd. 3, which requires the Commissioner to promulgate as rules standards for the operation of services. An important part of the operation of any service is assessing the service provided to the public and the public's response to that service. Due to the very personal nature of services provided by life support transportation services, it is very important that each licensee be responsive to members of the public who express complaints or concerns about the life support transportation service. Therefore, it is necessary and reasonable to propose a new standard which would require licensees to respond to complaints.

7 MCAR § 1.606 Restricted treatments and procedures.

Proposed section A. provides that basic life support transportation services may use medical anti-shock trousers only as allowed under 7 MCAR § 1.607 B. There is no new substantive material contained in this requirement; it is merely a restatement and renumbering of a requirement in the current rules that basic life support transportation services may use medical anti-shock trousers only under certain circumstances.

Proposed section B. is new material which establishes prohibitions and restrictions and provides that basic life support transportation services, except as authorized under the general section on the granting of variances, may not

offer the use of esophageal obturator airways, cardiac monitors or defibrillators, intravenous lines or infusions, or the administration of drugs other than oxygen, syrup of ipecac and non-prescription drugs.

The aforementioned treatments and procedures represent a gray area in the provision of medical services provided by basic life support attendants. The Life Support Transportation licensing law requires advanced life support transportation services to provide these services, but does not specifically address the provision of these services by a basic life support transportation service. These procedures and treatments represent a level of treatment which is learned and provided by attendants who are trained to some degree beyond emergency medical technicians. The use of esophageal obturator airways, cardiac monitors and defibrillators by basic life support transportation services is not addressed in the current rules. However, because the licensing law treats these items as advanced life support equipment, the Department requires basic life support transportation services to show evidence of satisfactory attendant training and obtain a variance before using any of these items. The standard emergency medical technician training courses do not offer instruction in the use of these items. Some emergency medical technician courses do teach the use of the esophageal obturator airway. If an emergency medical technician has learned that skill, and the licensee's medical director approves the training and authorizes use of the esophageal obturator airway by the attendant and makes sure that the attendant retains proficiency, a variance will be granted to allow use of the instrument. The same kind of requirements apply to requests for variances to use the other equipment listed in this section. Because most basic life support transportation services are staffed by American Red Cross Advanced First Aid card holders and emergency medical technicians, and these treatments require a level of knowledge and skill which is beyond that possessed by most advanced first aid card holders

and emergency medical technicians, it is necessary to place specific restrictions on the offer or provision of these treatments and procedures by basic life support transportation services.

7 MCAR § 1.607 Equipment standards; basic life support transportation services.

This section contains a number of amendments which do not impose additional substantive requirements on ambulance services but which only make the section easier to read, correct grammatical errors or renumber existing provisions. There is no specific justification for those amendments as they do not affect the substantive requirements of the rules.

Old section E.1.a.(1), renumbered to A.1.a. has been amended to require that lower extremity traction splints be fashioned so as to permit determination of distal pulse, sensitivity and range of movement after the application of the splint. This is necessary because it is important to avoid restricting circulation when applying the splint. This can be determined by applying the splint in such a manner that it is possible for the EMT to check the patient's pulse, the patient's sensitivity to touch or ability to move the extremity after the application of the splint.

Renumbered section A.2.a.(4) has been amended to provide that manually-cycled valves do not need single service tubing.

Renumbered section A.2.a.(5) has been amended to strike the requirement for a single service nasal cannula and single service inhalation mask and to substitute a requirement for equipment for the administration of a low concentration of oxygen which may be met by using either the venturi mask or the nasal cannula. This is a reasonable requirement because it allows the service in conjunction with its medical advisor to determine the best method of administering a low concentration of oxygen.

The Technical Advisory Group which reviewed proposed amendments to these rules also recommended that oxygen administration equipment include equipment for the administration of high concentrations of oxygen as set forth in renumbered section A.2.a.(6). It may be either a rebreather or non-rebreather mask. This is reasonable because it allows the medical advisor to determine the best method.

It is necessary to have equipment for administration of both low and high concentrations of oxygen to meet the needs of all patients. This requirement was justified and explained in the original statement of need.

Renumbered section A.3. relating to dressings, bandages and bandaging equipment has been amended to provide specific requirements for sizes of rolls of adhesive tape and sizes of soft rolled bandages. These changes were recommended by the Technical Advisory Group and are felt to be reasonable because certain sizes of tape and bandages are used more often and are more functional. Therefore, the rules require that these be carried as a minimum requirement.

This section has also been amended to require blunt-tip shears capable of cutting through heavy clothing. This is necessary because many accident victims are wearing heavy clothing and in order to ascertain the extent of injury, it is necessary for attendants to have shears which enable safe removal of clothing without moving the patient. Blunt tip shears are required because they are safer.

Renumbered section A.4. has been amended to strike the requirement that a poison treatment kit include one quart of drinking water and substitute the requirement that the kit contain one quart of drinking fluid. This change was recommended by the Technical Advisory Group and allows the licensee and its medical advisor or director to determine what type of fluid is appropriate to carry.

Renumbered section A.5. requiring one emergency obstetric kit has been amended to allow the service the option of carrying either an 18 inch by 25 foot roll of aluminum foil in an unopened original package or one reflective blanket or an ordinary clean blanket designed for keeping premature infants warm. This is a reasonable requirement because it provides additional, less expensive ways for the licensee to keep premature infants warm.

Renumbered section A.9.f. requires three bi-directional reflective triangles or three flares so that if the ambulance is parked around a corner and the lights on the ambulance are not visible to oncoming traffic, flares or triangles can be set out to warn oncoming motorists that there is an emergency vehicle stopped by the side of the road.

Renumbered section B. authorizing use of medical anti-shock trousers, is contained in the current rules and has been modified to some extent by the insertion of explanatory language. The basic substantive requirement has not been changed. The only addition to this particular rule is the addition of the phrase "are certified under 7 MCAR § 1.624." Attendants and drivers who will use medical anti-shock trousers must be certified as emergency medical technicians because there are certain risks inherent in their use. One of the risks is that they may be deflated and removed too soon or improperly, thus posing a danger of shock to the patient. Because advanced first aid card holders are not trained in the use of blood pressure equipment and such equipment is necessary when medical anti-shock trousers are being applied and deflated, advanced first aid card holders are not qualified to use this equipment.

Renumbered section C., "Variance for certain personnel." is a new requirement. This provision requires that basic life support transportation service licensees which use drivers and attendants who possess only an American Red Cross advanced first aid card must obtain a variance to authorize those drivers and attendants

to use equipment that must be carried on the ambulance, but for which no training was provided in the Red Cross course. This is basically a re-statement of a requirement contained in the licensing law and gives notice to the licensees and an opportunity for the Commissioner to check compliance.

Minn. Stat. § 144.804, subd. 2, provides that drivers and attendants are authorized to use only equipment for which they are qualified by training. All basic life support ambulances are required to carry the equipment specified in § 1.607 A. This equipment includes one portable oxygen system with a variety of face masks, portable suction apparatus, oropharyngeal airways and equipment for determination of vital signs, including a stethescope and blood pressure device.

Persons whose emergency medical training consists only of American Red Cross advanced first aid training have not received training in the use of this equipment. Therefore, if the licensee wishes to authorize advanced first aid card holders to use any of this equipment, a variance must be applied for as required under 7 MCAR § 1.630 D.1. This requirement is necessary so that advanced first aid card holders will understand that although the ambulance may be required to carry all this equipment, they are not permitted to use all of it unless they have received approved specific training in the proper use of each piece. This requirement is necessary for the protection of the public.

Renumbered section F.7. has been amended to require that licensees test medical equipment at the intervals suggested by the manufacturer of the equipment. This is necessary to assure that equipment will be in proper working order when a run is made. Since the same type of equipment is made by a variety of manufacturers and may be made differently, it is reasonable to require that the equipment be tested at the intervals suggested by the manufacturer. This takes into account any variation in the construction or the operation of the equipment which is known to the manufacturer.

7 MCAR § 1.608 Ambulance standards.

Renumbered section A.1.a. which specifies the size of the patient compartment of the ambulance has been amended to require that the patient compartment be at least 52 inches high instead of 54 inches. This is a reasonable amendment which was recommended by the Technical Advisory Group and allows the use of converted vans to transport patients. The requirement that there be kneeling space of not less than 25 inches width and 9 inches height along the right side of the forward half of the primary stretcher has been removed because it appears to be unnecessary. There is adequate room in an ambulance meeting the size requirements proposed in this rule for an attendant to kneel and place his feet in the aisle and administer to the patient's needs. The Technical Advisory Group concurred in striking that requirement.

Renumbered section A.1.b. requires that door openings to the patient compartment be capable of being fully opened and held open by a mechanical device. This is a reasonable requirement which has been inserted to insure that the doors will not swing shut when they should be open.

Renumbered section A.1.d. has been amended to delete the requirement that patient compartment lighting provide a minimum intensity of 40 foot candles at the floor level. This requirement was extremely difficult for ambulance services to comply with because it was difficult to measure. The Technical Advisory Group felt that a reasonable substitution would be to require enough light to allow visual determination of patient's vital signs. It may be possible to take a patient's vital signs in different amounts of light and this allows the attendant to determine how much light he needs.

Renumbered section A.1.f.(4) has been amended to strike the requirement that the ambulance be capable of full performance at ambient temperatures of 125° F. It has been amended to read that the ambulance must perform at 110° F. The Technical Advisory Group agreed that this was a reasonable minimum requirement as it is rarely 125° F. in Minnesota.

Section A.1.g. is a new requirement which would require that the ambulance be marked to show the name of the service as shown in the current license issued by the Commissioner. This is a reasonable and inexpensive requirement and will enable the public to know which ambulance service is providing service.

Renumbered section A.2. has been amended solely to correct and amend the citation to the General Services Administration specification for federal standards for land ambulances.

In renumbered section A.3., the requirement that ambulances "purchased by a licensee on or before June 30, 1981," must substantially comply with the standards contained in this section has been stricken. This provision has been amended to require that ambulances "originally put into service by the licensee, and all ambulances other than land or air ambulances," must substantially comply with the standards in this section. It is reasonable to substitute "originally put into service by the licensee" for "purchased by the licensee" because this gives the services more flexibility in their use of ambulances. It allows them to use ambulances which they did not purchase but which they may have leased, rented or used before June 30, 1981, whether they owned it or not. The addition of the requirement that all "ambulances other than land or air ambulances" must comply with this standard is merely an insertion of the requirement which was removed from another section to make the rules more compact.

Proposed section A.4. requires all land ambulances to be equipped with a siren and with a red light which is visible for 500 feet. This requirement was recommended by the Advisory Group because every ambulance should have the ability to warn the public that it is not traveling under normal traffic conditions. Even ambulances which provide scheduled services may on occasion need to transport a patient in the most rapid fashion possible. This is a reasonable requirement as it provides greater safety to the public.

Old section C.3.a. has been stricken from the rules because it is redundant. A reference to this requirement has been inserted in the preceding section to make the rules more compact.

Renumbered section D.3. has been amended to require that ambulances which are used to transport a patient who is known or should be known to have a "transmissible infection," must be cleaned and disinfected after use. This is a reasonable requirement to protect the safety and health of the public. An infection is the invasion and multiplication of microorganisms in body tissues and a contagious disease is a morbid process which can be communicated from one person to another. This phrase expands the category of patient conditions after which the ambulance must be disinfected. Also, the requirement that offensive matter be disinfected or disposed of in a secure container has been added to the rules. This is a reasonable requirement because it makes this particular rule more specific.

Renumbered section D.4. is a new provision and prohibits smoking in any portion of the ambulance. This is a reasonable requirement because smoking around persons who may be using oxygen or who are ill or injured can aggravate the condition of the patient. This is a very minor restriction in that it imposes no cost or difficulty on the ambulance service and it significantly enhances the provision of good patient care.

7 MCAR § 1.609 Communications.

The provision requiring all basic life support services to comply with these standards by June 30, 1981, has been stricken because it is no longer necessary. That date has passed and basic life support services are now in compliance with the rules or have received variances which allow them to deviate from the rules.

Throughout this section abbreviations have been stricken and replaced with words. This change was requested by the Revisor's Office. The section formerly

numbered D.1.c., which required that ambulances and their communications bases use Channel 1 of the radios as the main operating channel for medical communications and Channel 2 for statewide communications, has been stricken. This requirement is no longer necessary because a proposed new section would permit ambulance services to choose which channel to use for medical communications and which to use for statewide communications as long as the channels are labeled. The Technical Advisory Group discussed this requirement and decided that it was unnecessarily restrictive and that no problems would result if this requirement were stricken.

The radio frequencies which ambulances and their bases must use are still assigned but they may be used on any channel as long as the channel is labeled so that the ambulance operator will know which frequency he is using.

Renumbered section A.3. has been amended to provide that ambulances and communications bases must select and operate one channel at the frequency assigned to the district because now it is the responsibility of the service to select the channel rather than imposing the channel number through the rules.

Renumbered sections A.3.a.-h. have been amended to substitute the geographic name of the Minnesota Department of Health District for the popular names which were used in the rules. These are the designations used for the State Emergency Medical Services health plan. In each section the requirement that a particular district use Channel 1 has been stricken and replaced with the requirement that ambulances operating in that district select one channel at the assigned frequency. This follows the preceding requirement which permits ambulances and bases to select one channel as long as they label the channel to show use.

Renumbered section A.5. has been amended to provide that ambulances and communication bases must operate one channel assigned to the national frequency at the assigned radio frequency. This is a federal requirement. The requirement

that ambulances and bases operate channel 2 on that frequency has been stricken because it is unnecessary.

Renumbered section A.6. requires that each channel be labeled to show use. This is a reasonable requirement as it will prevent confusion as to which channel is to be used for which purpose and it is extremely inexpensive to comply with.

Renumbered section A.9. has been rephrased to provide that ambulances and communications bases may communicate by telephone and other means when radio communications are not necessary. This is a simplification of the phrasing of a requirement that ambulances use radios unless it is not necessary for them to use radios.

7 MCAR § 1.610 Personnel standards; advanced life support transportation services.

A. Qualifications of attendants. This section has been amended by the addition of the provision that persons functioning as pilots of air ambulances do not need to meet the requirements for advanced life support attendants. This is a reasonable requirement which was justified in the last rule hearing and has been transferred to this section to make the rules simpler and more compact. It has been stricken from current section A.1.c.

Current section A.1.a.(1) which states "is registered by the commissioner pursuant to Minn. Stat. § 214.13 to provide paramedic services" is stricken because those proposed rules were never adopted. Section A.1.a.(2) is stricken because the sections dealing with examinations and continuing education for paramedics have been stricken from this rule. Those sections have been consolidated and have become part of 7 MCAR § 1.626, a more comprehensive and thorough section detailing paramedic requirements approved by the Technical Advisory Group.

Renumbered section B. has been amended to provide that except for persons acting as pilots of air ambulances, no person may function as a driver or represent himself as a driver of an advanced life support service. This has been stricken from current section A.1.c. and inserted in this section for consolidation.

Current section A.1.b.(1), "possesses a current emergency care certificate issued by the commissioner pursuant to Minn. Stat. § 214.13;" is stricken because those rules will be repealed when the new requirements take effect. Registrations under those rules will not be maintained. Persons who would once have been registered under those rules will now be certified as EMTs under the life support transportation rules. Current section A.1.b.(2) has been amended to provide that a person may act as a driver of an advanced life support service if that person possesses a current certificate issued pursuant to 7 MCAR §§ 1.624, 1.625, or 1.626, and the citation to section 1.609 has been stricken. Section 1.609 has been renumbered to 1.624. A person who complies with the requirements of section 1.625 or 1.626 will exceed the requirements of 1.624 and would automatically qualify as a driver for advanced life support service. Current section A.1.b.(3) stating that a person may function as a driver of an advanced life support transportation service if he meets the requirements of 7 MCAR § 1.604 A.1.a. has been stricken because that section has been replaced by section 1.626.

The provision that "The requirements set forth in 7 MCAR § 1.604 A.1.b. shall not apply to persons functioning as pilots of air ambulances" has been stricken because it has been incorporated into the preceding section.

All of current section A.2. dealing with written and practical examinations for attendants of advanced life support transportation service ambulances has been stricken because these requirements have been incorporated into a new section on training, certification, examination and continuing education for advanced life support transportation service ambulance attendants, 7 MCAR § 1.626.

New section C., "Qualifications of air ambulance personnel." establishes additional requirements for training attendants for advanced life support air ambulances about the effects of air transportation on ill or injured persons. These requirements are the same as those for basic life support attendants contained in section 1.603 B. and the need and reasonableness is set forth under that section.

7 MCAR § 1.611 Staffing standards; advanced life support transportation services.

With two exceptions, this section has been amended only to the extent necessary to correct citations, delete abbreviations and to comply with the standard form of the Revisor's Office.

New sections A.1. and 2. impose no new requirements. The section which was formerly numbered 5.b. and which required that each advanced life support transportation service maintain a current roster including the names and addresses of all attendants and drivers and files documenting current personnel qualifications has been stricken because it has been set forth later in the rules under a combined personnel requirements section.

New section B., "Medical director," has been amended to strike the requirement that the medical director be responsible for at least the responsibilities set forth in 7 MCAR § 1.603 A.2.b.(1)-(5). That section dealt specifically with the requirements of medical advisors for basic life support transportation services. Those requirements were somewhat different from the requirements which are imposed on medical directors of advanced life support transportation services and therefore it was not accurate to state that medical directors had those same responsibilities. Under these amendments the medical directors have additional responsibilities which are spelled out in the definition section, 7 MCAR § 1.601 T.1. and 2. These amendments impose a new requirement on medical directors.

That is the requirement that a medical director for an advanced life support transportation service must have completed training in advanced cardiac life support that includes training in the elements listed in the rules.

About 10 percent of ambulance runs each year in Minnesota are for cardiac cases. Because many of the medical procedures provided by advanced life support transportation services are invasive, it is particularly important that the medical director who supervises those personnel be well trained in the provision of cardiac life support. This is an easy requirement to meet because courses are offered by the American Heart Association, the American Red Cross and many local hospitals. Both nurses, doctors and paramedic personnel can take these courses. Paramedics who serve as attendants on advanced life support transportation service ambulances are required to pass a practical examination which tests cardiology, including electrocardiogram interpretation and treatment, and the care of cardiac arrest, including intubation, intravenous therapy, administration of intravenous drugs, defibrillation, and cardiopulmonary resuscitation, including one and two person resuscitation, obstructed airway care and infant resuscitation. Paramedics are required to complete a course in advanced cardiac life support every other year. As this is a very important part of the care provided by paramedics and of the training and examination of paramedics, it is important that those doctors who direct their service in the field be adequately trained in this area as well. These courses are not part of the medical school curriculum for most physicians, and doctors who have been practicing in a specialty which does not treat cardiac arrests or obstructed airways need the training provided by these courses. These courses prevent skill deterioration and introduce participants to new medical information. The advisory task force which was composed of doctors, nurses, emergency medical care instructors, EMTs and paramedics, was very supportive of this requirement.

New section C. requires that each advanced life support transportation service licensee maintain a current roster including name, address and qualifications of its attendants and drivers, files documenting personnel qualifications, and a written statement signed by the medical director stating acceptance of the responsibilities of medical director. All these provisions were contained in other sections of the current rule and only the requirement that the medical director submit a written statement stating acceptance of the responsibilities is a new requirement. This is necessary so that the department will be able to verify that the service does, in fact, have a medical director who has explicitly accepted the responsibility.

New section D., "Operational requirements," has been amended only to the extent necessary to delete or strike abbreviations and to substitute new citations for the current rule citations. There is no new material in this section.

New section E., "Affiliation with medical facility," has been amended to add a new requirement which states that the terms of the formal affiliation between the medical facility and the advanced life support transportation service must include a written policy on the administration of medical control for the service. In 7 MCAR § 1.601, "medical control" has been defined to mean the direct communication between physicians in a medical facility and non-physicians who are providing out of hospital emergency medical care in the field. This section requires that the policy address the use of telemetry and two-way radio for physician direction of attendants, patient triage, the use of standing orders and the means by which medical control will be provided 24 hours a day. These are integral parts of medical control in that there would be no direct medical control in the field without the use of telemetry which transmits heart signs and the two-way radio which enables the physician to provide voice direction to the attendant. Patient triage is extremely important as it allows the physician

and the attendant to evaluate injury in cases where more than one person is injured and to determine who can wait for treatment, who cannot wait for treatment and who would benefit from treatment. It is important to have a written agreement governing the elements of medical control so that there will be a clear understanding on the part of all medical personnel as to the procedure to be followed in providing pre-hospital emergency care. There is no cost to either the service or the medical facility to reduce to writing, the procedure which the medical facility will use to provide medical control for the service. It is a very reasonable requirement in that it protects the health and safety of patients.

The operational requirement in current section 1.604 A.6., that an attendant must be in the patient compartment while the vehicle is transporting a patient, has been stricken from this section. This requirement which is the same as that in 1.604 D. has been incorporated in 1.611 D. This requirement is part of the current rule.

7 MCAR § 1.612 Quality of life support treatment.

Comments pertinent to section 1.605 apply here.

7 MCAR § 1.613 Equipment standards; advanced life support transportation services.

There are no new standards imposed in new section A. The amendments to section A. were made only for the purpose of correcting citations and striking abbreviations and inserting words. Most of the amendments in new section B. which specifies the additional equipment which an advanced life support transportation service must carry, were made for the same purpose.

New section B.3. has been amended to replace the word "medication" with the word "fluids." This is a reasonable amendment because drugs and fluids are treated separately and medication is dealt with under number 4. The word "medication" has been stricken from number 4. and replaced with the words "drugs

and drug administration equipment" because the word medication was never defined and had an imprecise meaning. The word "drug" has been added to the definition section and has been defined so that it has a specific meaning. Section B.5., requiring the carrying of one set of medical anti-shock trousers, has been amended to strike the word "inflatable" and substitute "medical" for medical anti-shock trousers. The purpose of this amendment was to standardize the reference to anti-shock trousers throughout the rules.

Section B.6., is a new requirement which has been added to this section. It specifies that the portable oxygen system which is required under section A. must be equipped with an oxygen-powered manually-cycled valve and must provide a minimum of 30 minutes continuous supply at a rate of 15 liters per minute when used with the oxygen-powered manually-cycled valve. It is reasonable to require that advanced life support services carry a portable oxygen system with an oxygen-powered manually-cycled valve because this is the most efficient method of providing oxygen to patients in cardiac arrest. Because the valve is oxygen-powered and 100 percent oxygen is being provided to the patient, a larger supply of oxygen is needed. Advanced life support units often spend more time at the scene providing care than do basic life support units, therefore, it is necessary and reasonable to require them to carry a larger supply of oxygen. The Technical Advisory Group reviewing these rule amendments felt that a 30-minute continuous supply at a rate of 15 liters per minute was the appropriate supply to require. Most advanced life support units now carry oxygen tanks equipped with oxygen-powered manually cycled valves. The larger supply of oxygen can also be provided by connecting two smaller tanks and avoiding the necessity of purchasing additional equipment.

The section which was numbered B.1.d. and which provided that "Medications shall be securely stored according to written procedures developed and maintained by the medical director and complying with applicable rules of the Minnesota Board of Pharmacy" has been stricken because it is unnecessary. 7 MCAR § 1.601 T., in which "medical director" is defined, specifies that one of the activities of the medical director is to provide written procedures for the storage and administration of drugs. The reference to applicable rules of the Minnesota Board of Pharmacy has been stricken because there are no rules of the Minnesota Board of Pharmacy dealing with the storage of medicine aboard life support transportation service vehicles.

New Section D. has been amended to add testing requirements to the maintenance and sanitation requirements. It merely provides that the standards which apply to basic life support units for the maintenance, sanitation and testing, also apply to advanced life support units. In addition, abbreviations have been stricken and citations corrected.

The section which was formerly numbered B.2.b. and which required procedures for periodic performance testing of airway maintenance and electronic equipment has been stricken as unnecessary. It is repetitive of the basic life support requirement that equipment be maintained as required by the manufacturer of the equipment. The preceding new section, 1.613 D. transfers this requirement to advanced life support transportation services.

7 MCAR § 1.614 Compliance with ambulance standards.

This section has been amended only to the extent necessary to delete abbreviations, correct citations and give this section its own rule number.

7 MCAR § 1.615 Communications.

The changes which have been made in this section are the same as those which were made in the basic life support communication section with the exception of certain provisions which will be noted below. The need and reasonableness of these changes is substantiated in the same fashion as it was for the basic life support communications section. Section 1.615 A.7. is a new section which provides that ambulances and bases operating telemetry in the VHF bands may use only those radio frequencies approved by the Federal Communications Commission. This is merely a notice provision restating a requirement of federal law.

7 MCAR § 1.616 Standards for the operation of scheduled life support transportation services.

Section A.2. which deals with scheduled basic life support transportation services and scheduled advanced life support transportation services has been amended to correct citations and replace abbreviations with words.

7 MCAR § 1.619 Disasters.

Current sections 1.608 A. and B. have been stricken from this section which will be renumbered 7 MCAR § 1.619. Sections A. and B. have been stricken because these provisions have been amended and moved to the end of the rules. The justification for the amendments to those sections will be taken up under that section. New section 1.619 has been amended only to revise citations.

7 MCAR § 1.620 Advertisement.

The section currently numbered D.2. which provides that all life support transportation services shall observe designated primary service areas as prescribed in 7 MCAR § 1.605 C. or 7 MCAR § 1.608 F. in conducting or allowing any form of advertisement for its services, has been stricken because the substance of this rule is included in 1. Therefore, D.2. is unnecessary because it is repetitive.

7 MCAR § 1.621 Enforcement provisions.

This section has been amended only as necessary to correct citations and grammar.

7 MCAR § 1.622 Primary service area.

This section numbered F.1.a. in the current rule has been stricken and that requirement has been rephrased to make it clearer. It is now section A.1. The substance of the rule has not been changed. It still provides that an applicant must declare its primary service area and seek designation of that area.

New section A.2.a. has been amended to add the requirement that an applicant, when applying for designation of a primary service area, must show the reasonableness of its response time from its substations as well as from its base of operation. The concept of substation has been added to these rules because it was necessary to define a location for personnel, vehicles and equipment which was not the primary operating base of the applicant. Since applicants will keep personnel, vehicles and equipment at more than one location in their primary service area, it will be necessary for the Commissioner, when designating a primary service area, to know the response time from each location. This enables the Commissioner to determine whether the primary service area proposed by the applicant can be adequately served.

Section A.3.b. is a new section which was added to the rules because it seemed reasonable to create a separate provision for cities of the second class. A life support transportation service which serves a city of the second class must travel a greater distance in order to serve or find a population that will support this service. The population in a city of the second class is usually less dense. Therefore, it is reasonable to allow a longer response time for a vehicle in a city of a second class than for one in a city of the first class.

Current section F.1.d. is stricken because October 1, 1980, the date for applications for designation of primary service areas, has passed and this section is no longer needed. This section applied only to persons who were already operating life support transportation vehicles in areas which they regarded as their primary service areas prior to 1980. The other rule provisions provide standards for the designation of primary service areas for new applicants.

New sections B. C. and D. have been amended to revise citations and make grammatical changes.

7 MCAR § 1.624 Emergency care course program.

A substantial portion of this section which is currently numbered 7 MCAR § 1.609 is contained in the current rules and deals with the same subject, emergency care courses. This section has been revised so that it provides standards for training for emergency medical technicians who, once certified as having completed an approved course, may serve as ambulance attendants. EMT's also serve in other capacities in the medical field on the basis of having had this training. Throughout this section the word "program" has been substituted for "course." In fact, the Commissioner approves programs which are composed or may be composed of more than one course. The courses which are offered make up the program and it is the program in its entirety which is approved by the Commissioner.

New Section A.1. has been amended to provide that the application for initial approval of an emergency care course program for emergency medical technicians must be made on a form provided by the Commissioner. The phrase "programs for emergency medical technicians" has been added to clarify the class of attendants for whom this course is intended and citations have been amended.

New Section A.1.f. has been amended so that the medical supervisor of the course will now be called a "program medical director" instead of a physician medical advisor. The reason is that "medical program director" refers to a person who is in charge of all courses offered by the program. The word "physician" is unnecessary because the definition of program medical director specifies that that person must be a physician. This person must be a director rather than an advisor because the duties expected of an advisor are only to provide advice and to provide assistance, whereas a medical director, according to the definition, provides standards which are used for training and orientation, for standing orders, and for equipment. The program medical director should not just provide advice on the medical content of an emergency care training course, but should personally insure an accurate and thorough presentation of the medical content of the course and be involved in determining that each student has successfully completed the course.

New section A.1.g. requires that the applicant provide the name, address and qualifications of the program coordinator which is required under new section C.2. It is necessary to require that each program have a program coordinator so that there will be one person who is in charge of program planning, student selection, instructor selection, documentation, curriculum development and coordination of the examination and clinical training. This person needn't be a physician as he will handle the administrative details of the training program, thus freeing the program medical director to concentrate on the medical content of the course. It is reasonable to require a particular person to be in charge of these aspects of the course to ensure that the courses will be smoothly run and to provide better training for the students.

New section A.3. requires that applicants who are approved to teach emergency care courses notify the Commissioner of the starting date of the course prior to that date. This requirement is necessary because the Commissioner may wish to

conduct a course audit and will need to know when each course begins. This assures that the Commissioner can determine whether applicants who have had courses approved actually offer them. The Commissioner schedules the examinations for the students who complete these courses, and this notice allows the Commissioner advance notice of each course so that arrangements can be made to schedule the examination which will occur at the end of the course. This imposes a very small burden on the applicants as the requirement can be satisfied with a phone call to the training coordinator in the Department of Health.

New section B. has been amended to require that the Commissioner, in determining whether a renewal application will be approved, shall consider whether the applicant has complied with the requirements of sections A. through F. Sections A. through F. specify all the requirements for offering an emergency care course. Applicants who do not comply with the requirements contained in these rules will not be approved to offer additional courses. This is reasonable because students who take these courses expect to be provided with training which will enable them to pass successfully the examinations given by the Commissioner and to successfully provide pre-hospital emergency care to patients. The requirements in sections A.-F. are the minimum requirements necessary for accurate and complete presentation of the information necessary to enable students to become qualified to serve as basic life support attendants. Therefore, it is reasonable for the Commissioner to consider whether applicants have complied with these requirements when determining whether to approve a renewal application.

New section C.3. has been amended to strike the requirement that a minimum of 14 hours of the curriculum be taught by a physician and to substitute an 8-hour requirement. This provision would require that 8 hours of the curriculum, including patient physical assessment, be personally taught by a physician. The Technical

Advisory Group recommended and approved this change. This is a reasonable change because it reduces the burden of locating and paying a physician to teach portions of the course, and because with more experience in the approval of emergency care training programs, it has become apparent that nurses, paramedics and other EMTs are qualified to teach many sections of the emergency care course. A physician is required to teach patient physical assessment because this is a portion of the course in which a physician may be needed to answer students' questions about how to examine a patient and how to evaluate for trauma.

New section C.4. has been amended to require that nurses who are instructors must be registered nurses. This is a reasonable requirement because licensed practical nurses have not had sufficient training as part of their formal nursing curriculum to enable them to instruct others in pre-hospital emergency care. The phrase "or others qualified" as specified in 7 MCAR § 1.603 A.1.a.(2)-(4) has been stricken because those persons, including emergency medical technicians, intermediate emergency medical technicians, paramedics or others approved by the Commissioner, are now specified.

The section which was formerly A.3.d. has been stricken because the documentation requirement is contained in a preceding section of the rules.

New section C.5. provides qualifications for instructors. This provision requires that instructors who are not physicians and who teach more than six hours of any course must possess two years or 4000 hours of experience in emergency medical care, certification as a basic cardiac life support instructor, and current, state certification or licensure in the instructor's field. These requirements are necessary so that persons who teach others about emergency care will have had appropriate training and experience to enable them to provide accurate and complete medical information. Physicians are exempt from this requirement because of their lengthy training and specialized knowledge. Persons

who teach no more than six hours of any course are exempt because these persons are usually guest instructors who possess specific knowledge in a specific field and they do not provide the majority of the information to the students in the emergency care training course.

The requirement that each instructor possess two years or the equivalent of 4000 hours of experience in emergency medical care is necessary to assure that persons who instruct others have had actual experience in emergency medical care. Two years or 4000 hours is a lesser requirement that the three years or 6000 hours paid experience which is required for instructors in emergency care courses at Vocational Technical Institutes supervised by the Department of Education. Two years or 4000 hours of experience is a reasonable requirement because it provides sufficient opportunity for the instructor to have worked in a variety of emergency care situations, and encountered a range of emergency care problems. It is a less burdensome requirement than that of the Department of Education yet establishes a standard for measuring experience which is within a range of reasonableness. Instructors who have emergency care experience are familiar with the standards of hospitals and emergency care providers. They are familiar with the reality of using emergency care skills under stress and with limited or no direction or supervision and can better teach students to function under stress. Occupational experience cannot be duplicated in the classroom.

Certification as a basic cardiac life support instructor is required to insure that the instructor will be competent to teach cardiac life support and airway management -- two skills which are necessary for persons providing pre-hospital care.

Current state occupational certification in the instructor's field means that nurses, emergency medical technicians, intermediate emergency medical technicians and paramedics must be currently certified in order to teach emergency medical

care courses. This is a reasonable requirement because persons who teach should have current licensure or certification which demonstrates that they have met continuing education requirements and therefore continue to be knowledgeable in their field.

New section C.6. has been amended to strike the requirement that one instructor is required for every 100 students in the classroom didactic session. It appears that this requirement is not necessary as one instructor teaching in a large classroom can effectively lecture to more than 100 students.

New section D.1. has been amended to strike the requirement of 60 hours classroom didactic and substitute a 71-hour classroom requirement. This is a reasonable and necessary change because the standards on which these rules are based require 71 hours of classroom and practical skills instruction. Those are the U.S. Department of Transportation Emergency Medical Technician Training Standards and the Standards of the National Registry of Emergency Medical Technicians. The NREMT is a voluntary organization of persons who have trained, tested and been certified as emergency medical technicians. The total number of hours required is still 81 hours. This requirement merely specifies that the nine hours which were previously unaccounted for between the clinical and the classroom instruction must be part of the classroom instruction. Training institutions wishing to expand their clinical training past ten hours may do so.

New section D.2. sets forth the curriculum which must be offered in the emergency care training program. The current rules numbered A.4.b.(1)-(20) are stricken and a new curriculum description, which is consistent with the guidelines and standards developed by the U.S. Department of Transportation, National Highway Traffic Safety Administration, is substituted. The curriculum which is specified in D.2.a.-q. is basically the same course content as that which has been stricken. It is merely rephrased and reordered to conform to National

guidelines. The curriculum which is shown as amended language is also the curriculum which is currently offered in emergency medical technician training courses in this State. Therefore, there will be no additional burden on providers to meet this requirement.

Section E., content of clinical experience, is a new section. Although the current rules require clinical training, they do not specify what it must include. This section specifies that clinical training in the hospital must include observation in the emergency room, the coronary care unit, the intensive care unit, labor and delivery room, operating room, post anesthetic recovery room, or morgue. This provides alternatives for observation in the hospital for students in the emergency care courses. It is necessary to specify where the clinical training may be obtained to prevent students from obtaining all their clinical training on an ambulance. Training students in a hospital provides an opportunity for them to be exposed to a wider range of medical problems. This clinical course content conforms to the U.S.D.O.T. guidelines. The emergency care programs now offered in Minnesota provide this kind of clinical experience so there should be no additional burden on teaching institutions.

New section F. has been rewritten principally to rephrase sentences, to delete repetitive phrases and to revise citations. The only new requirement is that the splinting equipment include backboards. This is a necessary requirement because EMTs will be required to use backboards in the field and must carry them on the ambulance. Backboards were used in about 25 percent of all ambulance responses to accidents and about nine percent of all ambulance runs in 1980. In addition, the ventilation assistance and airway maintenance equipment must include suctioning devices. This is a necessary piece of training equipment because suctioning devices are carried on ambulances and students must learn how to use them so that they can prevent obstructed airways and choking. Training courses

now being offered in Minnesota use these pieces of equipment so there will be no additional burden on training institutions.

Current sections A.6. and 7. have been stricken and the section on testing has been expanded and reordered to make it more complete. The requirements which are contained in the stricken language have been incorporated into the expanded section. New section G.1. requires that each student, in order to complete an approved emergency care course, must pass written and practical exams. New section G.2. provides that the examination must test for competency in the subjects specified in the curriculum section. These are not new requirements but are merely restated in the new section.

New section G.3. sets forth the skills which the practical examination must test. These are skills which are presently tested in Minnesota. This language is based on the U.S.D.O.T. standards and on the testing required by the National Registry of Emergency Medical Technicians. This section merely codifies this requirement so as to provide in writing a uniform statewide standard for practical examinations, which will make it easier for new applicants to understand the standards they must meet.

New section G.4., which provides that the Commissioner, or a designated representative, will administer the written and practical exams, is a restatement of a current requirement.

New section G.5. which provides that examiners must possess current certificates issued pursuant to sections 1.624, 1.625, or 1.626, and must comply with 7 MCAR § 1.624 C.5. is a new requirement. The purpose of this requirement is to assure that those who examine emergency medical care course students have themselves been trained in the skills which are required and are familiar with the content and the application of the subject. This is reasonable and necessary to assure that students are fairly and accurately tested and to protect the

public. The requirement that examiners comply with 7 MCAR § 1.624 C.5. requires examiners to meet the same requirements as instructors. That is, they must be persons with two years or 4000 hours experience in emergency medical care, must be certified as basic cardiac life support instructors and must have current occupational certification or licensure in their field. This is an additional way of assuring that persons who are examiners are amply qualified and trained to judge whether students are capable of performing emergency medical technician skills.

New section G.6. has merely been amended to revise citations and to clarify the rule.

Current section B. has been stricken because this material has been incorporated in a later section of the rules.

The substance of new section H.1. which provides that persons who successfully complete an approved course will be issued a certificate by the Commissioner has not been amended. The provision specifying the certificate expiration date is stricken because it has been incorporated in a later section of the rules.

The provision on course audit current section D. is stricken and incorporated into a later section of the rules.

Current section E., on enforcement, has been stricken from this section because it was incorporated in the earlier section of the rules dealing with renewal of course approval.

New sections H.2. and 3. provide that the Commissioner, upon the request of an applicant, shall evaluate emergency care courses, training, and examinations to determine whether they are equivalent to the courses, training, and examinations required by these rules. This is a reasonable provision because it allows the Commissioner to certify persons with equivalent training without requiring them to go to the expense and trouble of obtaining more training in Minnesota and yet because of the review for equivalency it protects the public.

New section H.4. establishes a two-year renewal period for certificates. The Technical Advisory Group recommended that certificates be issued every two years for a period that would be concurrent with certificates issued by the National Registry of Emergency Medical Technicians so that emergency medical technicians could more easily renew both certificates at the same time. This does not change any requirement for certificate renewal but only establishes a different time period for that renewal.

New sections H.5. and 6. require that an applicant for certificate renewal complete an approved emergency care refresher course and pass approved examinations prior to the certificate expiration date. This is not a new requirement but is merely restated in this section of the rules. The purpose of a refresher course is to review information learned in the original course, to review the performance of certain skills including CPR, correct bad habits and pick up new information. It should be taken to refresh the EMT's recollection of how to perform well as an EMT. Therefore, since skills deteriorate over time and two years is the maximum amount of time which may elapse between refresher courses, this course should be taken in the second half of that period.

New section I. establishes a procedure for approval of emergency care refresher course programs which is very similar to the procedure for approval of emergency care course programs. The justification for this procedure is the same as that for the application procedure for the emergency care course. This procedure enables the Commissioner to determine that the emergency care refresher course programs which are offered provide effective instruction to the students and are run in a fashion which will facilitate learning and assure that the medical content of the course is appropriate. Section I.5. restates a requirement stricken from section B.2.b. of the current rules requiring that emergency care refresher courses provide not fewer than 20 hours of instruction and four hours of testing in the subjects listed in the rules.

New section J. expands the requirement in section K. to specify that the subjects taught in the refresher course and the skills learned in the original emergency care course must be tested. This is a reasonable method of assessing the students' knowledge and ability to perform certain skills which must be performed by attendants of basic life support transportation services. This provision codifies the current practice and provides notice of the elements of the tests.

New sections K.1. and 2. provide that persons who have successfully completed approved emergency care refresher courses will be issued renewal certificates by the Commissioner. They also continue the Commissioner's authority to evaluate courses, training and examinations offered in other states and to issue certificates to persons whose training and examination are determined to be equivalent to those which are offered under these rules. This is a reasonable requirement because it assures that minimum standards will be met and yet it does not hinder persons who have received adequate training elsewhere from becoming certified in Minnesota.

New section K.3. provides that successful completion of the National Registry of Emergency Medical Technican continuing education requirements in effect on the effective date of these rules are deemed to comply with the refresher course requirements in these rules. This is a reasonable provision because the National Registry requires twice as many hours of continuing education in emergency care as the state does under these rules. Persons who have met those standards have exceeded the requirements in these rules.

New section L.1. and 2. provide that an applicant may renew a certificate which has lapsed in one of two ways. Within 12 months after the expiration date, the applicant may complete an approved emergency care refresher course and pass

the written and practical examinations approved by the Commissioner. This is the same as the normal method for renewing a certificate. This requirement imposes no additional burden on the applicant. If more than 12 months have passed since the certificate expired and was not renewed, the applicant must complete an approved emergency care course (the original 81-hour emergency care training course) and pass the written and practical examinations which follow that course. This requirement is necessary so that skills which have deteriorated over the year during which the certificate was not renewed, may be refreshed and so that retraining may take place. This requirement is necessary to protect the health and safety of the public and to assure that ambulance attendants are well trained.

State law prohibits licensed transportation services from employing attendants who do not possess current certificates. If an attendant allowed his certificate to expire, the licensee would be required to stop using the person as an attendant. During this time skills would deteriorate and material learned in the emergency care training course would be forgotten. Therefore, it is reasonable to require re-training and re-examination to take place before a person whose certificate has been expired for a year or more can be allowed to serve as an attendant of a life support transportation service again.

New section M. provides that persons who are approved to offer emergency care courses and emergency care refresher courses must cooperate with the audit activities of the Commissioner. This requirement has been slightly rephrased from the requirement in the current rules, but the substance of it remains the same.

7 MCAR § 1.625 Intermediate emergency care course program.

This entire section is new. Intermediate emergency care course programs have been developed only within the last few years. This level of training is now

being certified by the National Registry of Emergency Medical Technicians in Columbus, Ohio, a national voluntary certifying organization. There has been great interest in developing this level of training and certification in Minnesota. In the fall of 1980, the Minnesota Health Department established an advisory group to develop course approval standards for an emergency medical technician-intermediate training course. The EMT-Intermediate Standards Group met three times during November and December, 1980. Members included physicians, nurses, paramedics, EMTs, ambulance personnel, educators and other persons interested in EMT-I services. EMT-I course approval standards, which were established by the EMT-I Standards Study Group, included the following recommendations:

1. The course should meet the skill and knowledge objectives of modules 1, 2 and 3, and training in the esophageal obturator airway as required by the U.S. Department of Transportation National Standards for Emergency Medical Technician-Paramedics.

2. The course should have a medical director.

3. The course should provide supervised clinical experience for students.

4. The course should agree to participate in a course audit by the Minnesota Department of Health.

5. The course faculty should meet or exceed minimum instructor qualifications for emergency medical technicians, and

6. The course should develop and publish a course application which states student prerequisites and other course requirements.

Applications for approval to teach such a course were developed and students have since been tested and certified by the Natonal Registry of Emergency Medical Technicians. It seemed reasonable, therefore, to establish certain minimum State standards for certification at the intermediate level as attendants on basic life

support ambulances. Section 1.625 was developed according to the aforementioned standards and was reviewed and approved by the Technical Advisory Group. Section A. requires submission of the same information required to be submitted under 7 MCAR § 1.624 A. The justification is the same.

Section B. is the same as the renewal section in 7 MCAR § 1.624 B. and the justification for it is the same.

Section C. is the same as 1.624 C. and the justification is the same.

Section D. requires that an intermediate emergency care course provide a total of not less than 52 hours of classroom instruction and practical skills instruction. Neither the National Registry of Emergency Medical Technicians nor the Department of Transportation Training Standards for Paramedics specify the number of hours which should be included in an intermediate emergency medical technician training course. However, since the course is composed of the first three modules of the paramedic training course plus instruction in the use of the esophageal obturator airway, it was agreed by the Technical Advisory Group that it was appropriate to require a minimum of 52 hours instruction. The course guide which outlines National Standards for the United States Department of Transportation paramedic instruction, indicates that 52 hours are required for training in those modules. Most of the courses now in existence in Minnesota provide more hours of instruction. Therefore, it was deemed reasonable to require a minimum of 52 hours classroom instruction and practical skills instruction. Each course and each instructor may determine the appropriate number of hours for instruction in each module of training. This section also specifies the subjects which must be covered.

Section D.3. requires that each program provide supervised clinical training in the hospital. During clinical training each student must practice under

direct visual supervision certain skills which are taught in the classroom section of the course. It is reasonable to specify that these skills be performed under medical supervision because correct performance is important to the well being of the patient. Those which are invasive require that particular care be taken on the part of the instructor to assure that the student does not harm the patient on whom the skill is being practiced and to be sure that the skill is learned correctly so that it will be performed properly in the field where there is no medical supervisor present. Skills which are listed under the supervised clinical training requirement are part of the National standard curriculum for paramedics established by the U.S. Department of Transportation National Highway Traffic Safety Administration.

Section E. provides that students admitted to an intermediate emergency care course must possess current certification as an emergency medical technician. This requirement is necessary because intermediate emergency medical technician training presumes that the student has already received a certain amount of training which will not be repeated in the intermediate emergency care course. The information taught in the intermediate course is a continuation and elaboration of information presented in the emergency medical technician course. Therefore, it is necessary that there be evidence that students have attained a certain level of training before they begin this course.

Section E.2. requires that the student be employed by or serve as a volunteer with a life support transportation service. This is necessary to prevent classes from being filled by persons who don't need to learn the skills for use in their jobs. It also assures that the advanced invasive skills will be taught only to persons who will use them under medical supervision.

Section F. is the same as the equipment and supplies section in 7 MCAR § 1.624, with one exception.

Section F.3. provides that instructors shall use emergency care equipment consisting of esophageal obturator airways, medical anti-shock trousers, I.V. equipment, ventilation assistance and airway maintenance equipment, and equipment for the determination of vital signs. It is reasonable to require this equipment because it is necessary for the performance of the skills which are taught in the course. Courses approved in Minnesota now use these pieces of equipment and this imposes no new burden on the courses.

Section G. specifies that each student must pass written and practical examinations approved by the Commissioner and that the Commissioner must administer exams which test for competency in the subjects listed in the curriculum section. This is a reasonable requirement because in order to determine that students have successfully and thoroughly learned the subject matter presented in the course, it is necessary to test to determine whether the student is competent to practice his skills on patients. The practical examination must test the practical skills which were taught in the course. This is a reasonable requirement so that the examiners can determine that the students have mastered the skills taught in the course and the proper use of the medical equipment. This requirement protects the health and safety of the public and minimizes the risk to the patient.

Section G.4. provides that the written and practical portions of the National Registry of Emergency Medical Technicians-Intermediate examination as of the effective date of these rules are deemed to comply with the examinations required by these rules. This is reasonable because these examinations have been examined by the Department and have been determined to fulfill the requirements of the rules which are that the examination test for competency in subjects listed in the rules.

Section H., issuance of certificates, is the same as the section on issuance of certificates for emergency medical technicians. The justification is the same.

Section I. specifies the amount and type of continuing education which must be completed by each applicant for certificate renewal. The requirements are: (1) annual certification in basic cardiac life support; (2) completion of an emergency care refresher course and examination approved by the Commissioner; (3) completion of 12 hours of continuing education in the subjects included in the intermediate emergency care course; and (4) submission of evidence of completion of continuing education requirements to the Commissioner within 90 days after the certificate expiration date. It is reasonable to require annual certification in basic cardiac life support because this is the basic training in cardiopulmonary resuscitation, a skill which is required of every emergency medical technician. Since a large number of the runs made by ambulance attendants involve cardiac arrest or airway management problems, it is vitally important that attendants receive refresher training in this subject on an annual basis so that skills will not deteriorate. Completion of an approved emergency care refresher course and examination is necessary to assure that other skills which are required for performance as an intermediate emergency medical technician are maintained. Twelve hours of continuing education in subjects taught in the intermediate emergency medical technician training program is reasonable because it assures the safety and well being of persons who are served by the ambulance attendants. Ninety days is a reasonable length of time for an applicant to submit this information to the Commissioner. Certificates are current for only two years. Ninety days is one-eighth of the certification period, and seems to be an adequate length of time for applicants to submit certificate renewal information.

Section J. which requires approval of continuing education courses by the licensee's medical director is needed to assure that attendants complete appropriate courses. A very wide variety of courses is offered and a mechanism is needed to make sure that attendants take relevant courses offered by reliable training institutions. This should be the responsibility of the medical director because he is responsible for the medical care provided by the licensee.

Section K. requires that the medical director of a licensee document that the applicant for certificate renewal has the skills which are described in the section on testing of practical skills. This is a reasonable requirement which will enable the Commissioner to determine at the time the certificate is to be renewed, whether the applicant retains proficiency in the skills which were tested when the initial certificate was issued. The person who is in the best position to know whether the applicant retains those skills is the medical director of the service for which the applicant is employed. The medical director is responsible for the medical care provided by the service and is in a position to re-test and re-train emergency medical technicians who are employed by that service.

Section L. is basically the same as the section on certificate renewal in section 7 MCAR § 1.624. The justification is the same.

Section M. is the same as the course audit section in 7 MCAR § 1.624 and the justification is the same.

7 MCAR § 1.626 Advanced emergency care course programs for paramedics.

Section A., application for initial program approval, and section B., application for renewal are the same as the sections contained in 7 MCAR § 1.624 and 1.625 A. and B. and the justification is the same.

With the exception of the requirement that instructors must be paramedics instead of EMTs or intermediate EMTs, the requirement in section C. is the same as that in 7 MCAR § 1.624 and 1.625, and the justification is the same. It is reasonable to require that instead of EMTs or EMT-Intermediates, that paramedics serve as instructors because only persons with an advanced level of training can teach the advanced subject matter. This is consistent with the way the course is presently being taught.

The course content which is specified under section D.1. is the same as the course content specified in section 1.604 A.2. of the current rules. It is set forth under the heading "Course Content" to make the course content sections consistent. The justification for the content is contained in the original statement of need which accompanied the rules which were adopted in April, 1980. Briefly, that was that these subject areas are consistent with the recommendations of the U.S.Department of Transportation for training programs for advanced life support attendants. The subject areas are broad areas encompassing major categories of medical care provided to ill or injured persons and expectant mothers. These subject areas are also consistent with those tested by the National Registry of Emergency Medical Technicians and they are presently taught in existing training programs in Minnesota.

Section D.2. requires that in addition to the classroom instruction in the subjects listed above, each student must receive clinical training in a hospital and ambulance. Clinical training is necessary to give students first-hand experience in the performance of skills associated with these subject areas and to provide an opportunity to observe patient treatment. The instruction must be provided under direct medical supervision which includes: a demonstration of the skill by the supervisor, observation by the student, practice and successful performance of the skill by the student, and evaluation by the supervisor.

In general, this is the way clinical training programs are carried out throughout Minnesota by those institutions which provide paramedic training. This section was approved by the Technical Advisory Group. It is reasonable and necessary to require this type of clinical training so that no harm will be done to patients on whom these skills are practiced and so that the skills will be well learned by the student in a manner which enables them to be efficiently and safely practiced in the field.

Section E. provides that only persons who have successfully completed an emergency care course and who are currently certified as emergency medical technicians or intermediate emergency medical technicians, may be admitted to an advanced emergency care course. This is a reasonable requirement because advanced emergency care courses teach advanced skills which presume a certain basic knowledge to which the advanced skills may be added. The requirement of certification is a way of determining that the students have in fact successfully obtained the minimum level of knowledge necessary to proceed with advanced instruction. This section protects the health and safety of the public by making sure that training in an advanced level progresses in an orderly fashion from the basic level to the advanced level.

The rationale for section F. is the same as that presented in the equipment and supplies sections in 7 MCAR § 1.624 and 1.625. Section F.3. lists equipment which must be used in the advanced courses. The equipment listed must be carried by advanced life support transportation services. Therefore, it is reasonable to require that instruction be provided to attendants in how to use all the equipment carried by the advanced life support transportation service vehicles.

Section G. is the same as that governing testing in the current rules. The only portion which has been changed is Section G.3. This section has been amended to permit paramedics to assist physicians and nurses in testing all stations of the practical examination. This is less restrictive than the current rule. The Technical Advisory Group, which reviewed these rules and recommended amendments, suggested that paramedics could test more of this examination. Therefore, the restriction on testing has been eased to allow paramedics to examine all stations of the practical examination under the supervision of a physician or nurse. Section G.3. requires that all paramedics meet the requirements in 7 MCAR § 1.624 C.5. This requires that persons who are instructors have two years or 4000 hours experience in pre-hospital emergency care, be certified as basic cardiac life support instructors, and have current occupational certification in their field. None of these additional requirements will be burdensome for paramedics, therefore, it is reasonable to require them. Paramedics must have basic cardiac life support instruction as part of their continuing education, and it is reasonable that persons be certified in their own field before they are permitted to test an applicant in the field. This is a means of determining that they are knowledgeable and competent in the area in which they are testing others.

Section H. is the same as the section contained in 7 MCAR § 1.625 regarding issuance of certificate and the justification is the same.

Section I. is the same as 7 MCAR § 1.604 A.3. in the current rules. It is stricken from that section and incorporated into this comprehensive section on the training, examination and certification of attendants for advanced life support transportation services.

The current rules contain a small paragraph with a reference to skill documentation which states that continuing education requirements include retention of the competencies listed in 7 MCAR § 1.604 A.2.b.(1)-(5) as documented in a statement of satisfaction by the medical director. Section J. specifies the skills which must be documented by the medical director. The skills were taught in both the classroom and clinical instruction in the advanced emergency care course. All of these skills will have been tested in the initial examination for paramedic certification. For the protection of the health and safety of the public, it is necessary to document at the time that the certificate is renewed that the paramedic retains the ability to safely and efficiently perform these skills. The medical director who supervises the medical care provided by the advanced life support transportation service is the person best qualified to determine whether each paramedic retains the ability to perform these skills.

Section K., certification renewal, and section L., course audit, are the same as the sections on certificate renewal and course audit in sections 1.624 and 1.625, and the justification is the same.

7 MCAR § 1.627 Trip reports.

This section was formerly 7 MCAR § 1.610, Documentation. All of the old text of this section was stricken with the exception of one sentence because it was duplicative of requirements listed elsewhere in the rules. The sentence which is retained is currently section 7 MCAR § 1.610 A.5.d. and states "Each licensee shall maintain trip reports for every run in which patient care was offered or provided to meet the reporting requirements of Minnesota Statutes § 144.607." The requirement that trip reports be retained is an acknowledgement of a statutory requirement. It provides notice to the life support transportation service providers that they must maintain this document.

This rule is amended to require that the report contain the information specified in new section 1.627. This information includes the history of the patient's illness, the patient's name, address, vital signs, treatment provided by the attendants, name of the life support transportation service, the date and time of the request for service, identification of crew members, destination, and any additional information which the medical director requires. Requiring this information presents no additional burden to the life support transportation service as most of this information is now recorded by attendants when emergency care is provided. The collection of this information is reasonable because it allows the Commissioner to review trip reports to determine which attendants are providing service and then to determine if they are appropriately certified as required by the rules, to determine what equipment was used, whether appropriate variances have been obtained, and to submit these reports to medical review to determine whether proper equipment and skills are being used to provide treatment. For example, reviewing these reports will enable the reviewer to determine whether oxygen was provided to persons whose complaint or symptoms indicated a need for it, or whether a spine board or cervical collar was applied to a victim of a car crash. It is necessary for the protection of the health and safety of the public to have access to this information.

7 MCAR § 1.628 License fees and expiration dates.

The phrase "or for change in licensure" has been added to the requirement in section A. that each license application be accompanied by a basic fee. This was omitted from the current rules. An increase in fees is proposed. Minnesota Statutes § 144.122, on license and permit fees, allows the State Commissioner of Health by rule and regulation to prescribe reasonable procedures and fees for filing with the Commissioner as prescribed by statute for the issuance of original

and renewal permits, licenses, registration and certification issued under his authority. The fees may include application and examination fees and a penalty fee for renewal applications submitted after the expiration date. All fees proposed to be prescribed in rules and regulations shall be reasonable and shall be in an amount so that the total fees collected by the Commissioner, where practical, will approximate the cost to the Commissioner in administering the program. These proposed fees were submitted to the State Budget Director for approval (attached as an exhibit). On September 28, 1981, a memo (attached as an exhibit) was sent to the Commissioner of Health from Allen A. Yozamp, Assistant State Budget Director, on the subject of the proposed fee increases. The memo stated "the ambulance license fees are approved although the fee revenue will not recover costs. We agree increasing the fees sufficiently to recover costs could place a financial hardship on volunteer ambulance services."

This section also provides that license fees are not refundable. This is a reasonable requirement because the fee pays for the processing of applications and administrative work connected with the applications and the inspection program. Much of this work has already been done or all of it may have been done when an application is withdrawn. Therefore, it is reasonable to refuse to refund the fee.

Section B., Expiration dates, has been stricken because a new registration period is proposed in these rules. Ambulance licenses will be renewed biennially instead of annually. This will require less work for the Department and also less work for the licensed transportation services as they will be required to submit renewal applications every two years instead of every year. In order to expedite the licensing and relicensing process, eight licensing periods have been established. Each period begins on the first day of a calendar month and ends on the last day of the 24th month (or two years) from the beginning of the

period. The relicensing period during the first two years under this system will be shorter for some ambulance services than for others, so that by the time the first two-year period is up, all services will have been established in a biennial licensing system which enables the Department to spread out the renewal procedure over two years. This system also provides for proration of fees for services which are licensed for fewer than 24 consecutive months. This is a reasonable amendment because it provides for more efficient licensing of ambulance services which benefits both the Department, the ambulance services themselves, and the public that they serve.

New section C. requires that all ambulances be identified by a certificate affixed to the vehicle. This is a reasonable requirement as it enables the public and the Department's inspectors to determine that an ambulance has been licensed merely by seeing this sticker on the ambulance.

7 MCAR § 1.629 Waivers.

The substantive portion of this rule is the same as that currently enforced. The wording of the rule has been amended to make the rule shorter and clearer. The current rule provides that a waiver will be granted if the applicant affirmatively substantiates that the rule in question does not address a problem of significance to the public in relation to the applicant's service. This has been taken to be the same as the provision that the granting of the waiver would not adversely affect the public health or welfare and therefore has been stricken as repetitive. No other substantive changes have been made in the section dealing with waivers and the rationale is the same as that originally expressed in the statement of need which accompanied the draft of rules adopted in April, 1980.

7 MCAR § 1.630 Variances.

Sections A., B. and C. are basically the same as the variance procedures currently in effect and therefore the rationale is the same. The provision that provides that a rule may be varied if it does not address a question of significance to the public in relation to the applicant's service, has been stricken because it addresses the same qualification as the rule that a variance will be granted if it will not adversely affect the public health or welfare or if it imposes an undue burden on the applicant. The changes in these sections were made for brevity and clarity.

Section D., Specific variances, lists five specific variances which will be granted to licensees when specific conditions are met. These variances all deal with the use of certain pieces of medical equipment and the provision of certain advanced treatments or procedures by basic life support transportation services. In some cases basic life support transportation services may have attendants who are intermediate emergency medical technicians. Some services have EMTs who have received additional training which qualifies them to use certain equipment generally restricted to advanced life support transportation services, or to provide certain treatments which, because of their invasive nature, are generally restricted to advanced life support transportation services. Because many areas of Minnesota do not have advanced life support transportation services, and the benefits of additional training have been promoted, many basic life support transportation service licensees now have attendants with additional training. Therefore, it is reasonable to establish a procedure by which basic life support transportation services may, in specified circumstances, provide advanced life support transportation services. These variances establish the framework for that. It is reasonable to establish, by rule, certain procedures for granting

these variances so that a uniform statewide standard will be established for the provision of advanced treatments and procedures. All services will have notice of the requirements for using this equipment and providing advanced procedures and the safety and health of the public will be protected. Each specific type of variance provided for in this section was discussed at length by the Technical Advisory Group and by a subcommittee of the Technical Advisory Group which dealt solely with medical issues. Each specific variance and the requirements for its granting have been approved by the Technical Advisory Group.

Section D.1. provides that basic life support transportation service licensees, who have attendants whom they wish to authorize to use all of the equipment on the basic life support transportation service ambulance but who have only been trained to the advanced first aid certificate level, must obtain a variance from the Commissioner in order to authorize those attendants to use all of the equipment on the ambulance which was not used in their training. The rationale for this restriction is contained in the rationale for 7 MCAR § 1.607 C. The licensee must submit to the Commissioner a list of attendants who have received additional, medically supervised training specifying for each attendant the subjects covered, the length of training, the nature of the medical supervision, and a statement signed by the licensee's medical advisor stating his approval of the training received by the attendant. This is a reasonable requirement because it enables the Commissioner to determine whether or not the person who will use the equipment and for whom the variance is being obtained has received training which will qualify him to use that equipment. The requirement is necessary to protect the patients who are transported by the ambulance service and is required by Minn. Stat. § 144.804, subd. 2, which provides that "Drivers and attendants are authorized to use only equipment for which they are qualified by training."

Section D.2. provides that a basic life support licensee that seeks a variance to provide a treatment or procedure that is restricted pursuant to 7 MCAR § 1.606 must have a physician medical director who agrees to provide medical direction regarding attendant training, equipment, standing orders and continuing education, with respect to the treatment or procedure offered or provided pursuant to the variance. This is a reasonable requirement because the procedures or treatments authorized under this variance section are actually services or treatments which are restricted to advanced life support transportation services. Those advanced life support transportation services are required to have a medical director. Medical directors offer binding direction to a service as opposed to advice which can be disregarded. Because of the invasive or the advanced nature of these treatments or procedures, it is necessary that they have the additional direction and supervision provided by a medical director, whether or not they have a medical advisor who advises them on care provided under their basic life support license.

Section D.3. provides that the Commissioner may grant a variance to allow the establishment or maintenance of intravenous infusions by basic life support transportation services only if the applicant shows that it will be established or maintained by attendants or drivers who have been trained in its establishment and maintenance. This is a reasonable requirement because basic life support transportation services are staffed by attendants who have received only emergency medical technician training, and this training does not include instruction in the establishment or maintenance of intravenous infusions. Therefore, it is necessary that if a basic life support transportation service wishes to provide this treatment it must prove that its attendants have been adequately trained in providing this service. Because this is an invasive procedure, it carries with it greater risks to the patient. The establishment or

maintenance of intravenous infusions must have been approved by the licensee's medical director. The rationale for this is the justification provided for D.2. which requires that basic life support transportation services seeking a variance have a medical director.

Written standing orders and protocols for the establishment or maintenance of intravenous infusions must have been developed or approved by the medical director. This is necessary so that basic life support attendants will know when to use intravenous infusions. Most basic life support transportation services do not have medical control and are not in voice contact with a medical director at a hospital. Therefore, there must be written guidelines for the use of intravenous infusions.

Continuing education or clinical training must be provided annually to persons authorized to use intravenous infusions. This is necessary so that the skill of persons authorized to provide intravenous infusions will be maintained for the protection of patients transported by that service. This is not a burdensome requirement as intermediate emergency medical technicians or paramedics must receive refresher training in this skill on an annual or semi-annual basis.

The administration of these infusions is restricted to solutions administered only for fluid volume replacement, basically to treat shock. This particular restriction was recommended by the Technical Advisory Group and the medical sub-committee which reviewed the variance section. This particular restriction is designed to prevent the use of any intravenous therapy except that which is used solely for treatment of shock and for replacement of bodily fluids.

It is reasonable to require documentation of the aforementioned requirements so that the Commissioner will be able to determine that the intravenous infusions will be provided according to the restrictions contained in these rules. Persons

who possess intermediate emergency medical technician and paramedic certificates are deemed to comply with the training requirements because training in this skill is provided in those courses.

Under section D.5. the Commissioner may grant a variance to allow the use of a portable cardiac monitor or defibrillator only if the applicant shows that it will be used by attendants and drivers who have received training in its use and the training has been approved by the medical director. This is necessary and reasonable because attendants and drivers of basic life support transportation services do not receive training in the use of this equipment in emergency medical technician courses.

Standing orders for the use of the cardiac monitor or defibrillator must have been developed or approved by the medical director so that the service will have written guidelines for the proper and safe use of this equipment as basic life support transportation services are usually not in voice contact with the medical director who can tell them when it is appropriate to use this equipment.

Continuing education must be provided to prevent skill deterioration and to allow the Commissioner to determine that the persons trained to use this equipment retain their skill proficiency, and that the health and safety of the public will be protected.

Section D.6. provides that the Commissioner may grant a variance to allow the use of esophageal obturator airways by attendants of a basic life support transportation service only if the applicant shows that the attendants who will use the equipment have been trained in its use or have completed intermediate emergency medical technician or paramedic training and that the use of the esophageal obturator airway has been approved by the licensee's medical director.

The licensee's medical director must assure annually that each attendant authorized to use the airway retains skill proficiency and must sign a statement that the attendant has satisfactorily demonstrated such proficiency. Documentation of the foregoing requirements must be retained in the licensee's files. These requirements are necessary and reasonable because use of the esophageal obturator airway is an invasive procedure which is usually restricted to persons with advanced training. Although it is a very beneficial piece of equipment, it can be very hazardous and the training must include recognition of the hazards of malposition.

Its use is restricted to persons, who, at a minimum have received emergency medical technician training because it requires the use of oxygen, as it is used only in comatose, non-breathing patients. Attendants who have received only American Red Cross advanced first aid certificate have not been trained in the use of oxygen. Potential problems include inadvertent endotrachial intubation, or esophageal rupture. Therefore, it is necessary to restrict its use to persons who are adequately trained, who are determined on an annual basis to have retained their skill proficiency, and who have been approved by the licensee's medical director to use the airway.

Under section D.7. the Commissioner may grant a variance to allow basic life support transportation services to transport patients who are receiving intravenous therapy only when the following conditions are met: the transportation is provided only between health care facilities, the intravenous therapy was established by the facility from which the patient is transported, and a physician or registered nurse from the facility from which the patient is transported or a paramedic accompanies the patient and rides in the patient compartment in addition to the attendant required by 7 MCAR § 1.604 D. As an alternative to

the attendant requirement, the patient's physician may provide information and precautions regarding the use of intravenous therapy for the particular patient to the licensee's attendants.

Many patients who receive intravenous therapy are transported between health care facilities while receiving through the intravenous line, antibiotics or other therapy. Intravenous therapy and intravenous infusions are defined differently so as to make a distinction between them for purposes of these rules. Intravenous therapy under these rules includes all intravenous therapy except intravenous infusion which is defined as solutions provided only for fluid volume replacement. Because there is greater risk to a patient receiving intravenous therapy and because it is an invasive procedure, it must have been started in the health care facility. It is important that persons with additional training transport these patients. Most attendants of basic life support transportation services are emergency medical technicians and these persons have received no training in the emergency medical technician training course with respect to the use of intravenous therapy. Because the rules would allow basic life support transportation only if the therapy were instituted in the facility from which the patient is transported, and only if it were maintained, that is, is neither started nor stopped during transport, the risk would be minimized. The benefit to the patient is that a lower level of transportation at a lesser cost is available, thus reducing health care costs and possibly minimizing the waiting time for transportation between facilities for treatment.

Because most attendants of basic life support transportation services have had no training in the maintenance of intravenous therapy, it is reasonable to require that either a physician, nurse or other person who is familiar with the establishment, maintenance and complications of intravenous therapy accompany

the patient, along with the person required by law to be in the ambulance patient compartment. As an alternative to that requirement, the basic life support transportation service may transfer a patient receiving I.V. therapy if the attendants are certified under 1.624 and have completed training in the maintenance of I.V. equipment and the patient's physician provides information and precautions to the ambulance service attendants about the intravenous therapy which the patient is receiving. This poses very little additional burden to the basic life support transportation service, and allows the service to be provided at a lesser cost for the benefit of the patient who needs transportation between health care facilities. It assures that attendants will have some medically approved training to rely on in case there is a problem during transport.

Section D.8. provides that basic life support licensees may not be granted variances for parenteral administration of any drug except solutions for intravenous infusion, non-parenteral administration of any drug except sugar solutions for oral administration to conscious diabetic patients, oxygen, syrup of ipecac and drinking fluids, and establishment of intravenous therapy involving the use of drugs other than solutions for intravenous infusion. This is a reasonable restriction because attendants of basic life support transportation services have received no training in pharmacology, and unless they have received additional training pursuant to the granting of variances mentioned above, are not familiar with the establishment of intravenous lines. The medical subcommittee of the Technical Advisory Group agreed that it was necessary to prohibit the administration of all drugs except those listed as exceptions in 8.a. and b. by attendants of basic life support transportation services because of the risk of complications and hazards to ill or injured persons.

Repealer. Rules 7 MCAR § 1.541-1.543 are repealed.

These rules are being repealed because the training and examination requirements for registration of emergency medical technicians have been expanded and incorporated into 7 MCAR § 1.601 to 7 MCAR § 1.630, the rules for life support transportation services. Most EMT's in Minnesota are not registered. Registration is not a prerequisite for employment as an attendant on a basic life support transportation service vehicle. The qualifications of attendants are governed by the life support transportation service rules. Therefore, given the implicit authority of the Commissioner to repeal rules which are no longer required for the safety and well being of citizens of the state, these rules will be repealed.

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