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# IMPROVING THE EMERGENCY MEDICAL SERVICE AT WORCESTER POLYTECHNIC INSTITUTE

An Interactive Qualifying Project Report

submitted to the Faculty of the

WORCESTER POLYTECHNIC INSTITUTE

in partial fulfillment of the requirements for the

Degree of Bachelor of Science

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## Abstract

The WPI EMS service began in 1990 as a result of an IQP project, and is proud to be celebrating their 20th anniversary this year. The service has experienced a steady increase in call volume over the years. In response to this increase, an evaluation of the current program was done. Three over-riding issues were identified which were: communication, resources, and personnel. A gap analysis between the current state and the optimal state was also performed. Deficiencies in equipment, space and funding were found when WPI was compared to other collegiate programs. Measures need to be taken to close the gap to a First Responder level of service. Advancement to the Basic Life Support (EMT-B) is strongly encouraged. A detailed financial proposal has been developed.

## Acknowledgements

There are several people/organizations that we would like to thank for their help with this project: Chief of Police Cheryl Martunas and Donna Ryel of the WPI Police Department; Charles Kornik from the Registrar's Office; Professor Phil Grebinar from the Physical Education Department; Ricci Hall of South County EMS Associates; Clark EMS, RPI EMS, Brandeis EMS, and John Carroll University EMS for their time and assistance;

The last we would like to thank, would be our advisor, Helen G. Vassallo. Our thanks to her for guiding, helping, and putting up with us, all while still pushing us to succeed.

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## Introduction and Problem Statement

Worcester Polytechnic Institute Emergency Medical Service (WPI EMS) was founded in 1990 by an Interactive Qualifying Project (IQP). The project was started after three undergraduate students discovered a need for a quicker medical response on campus. That specific IQP was so successful that it won the Coghlin award at WPI. The Coghlin award is a highly prestigious award that is "Given annually to individuals or groups in recognition of valuable contributions made to the WPI and Worcester communities during the preceding academic year, the award honors extraordinary personal commitment beyond normal involvement in academic and extracurricular activities. It seeks to reward those who have, with a sense of determination and purposefulness, stepped forward as community leaders to the benefit of individuals, organizations, and society."[1]

WPI EMS is a first responder non-transport (quick response) service, operating under the WPI Police Department, which is staffed during all academic school days and weekends. Students on the squad can range anywhere in their academic career from freshman to graduate students. Though the squad functions as first responder service overall, students on the squad are allowed to be certified as First Responders, Emergency Medical Technician (EMT) Basics, EMT-Intermediates, or Paramedics.

WPI EMS is staffed by students who look to better their school community and is led by four undergraduate student officers. Currently, there are a number of problems in the WPI EMS system. The first problem is a gap in communication between WPI Staff and the EMS student leaders. Information is passed laterally between WPI departments and EMS student leaders are not included in critical communications. As an example, WPI EMS student leaders are not privy to WPI's disaster plans that may involve injured WPI community members.

For many reasons, the EMS service lacks funding and adequate space to function. The budget provided is no longer sufficient to purchase and maintain equipment. The space provided in Founders lacks the environmental controls required for the storage of medical equipment. It serves as both an office and storage area and is not sufficient in size for both functions. In addition, the service lacks an appropriate on-call space for members to sleep during over night shifts and a way to transport medical supplies from the periphery of the campus to more central emergencies.

Lastly, limited resources contribute to the difficulty of attracting and retaining service members. To provide first responder services, WPI EMS must provide training and mentoring of new members. Resources are needed to publicize the service, provide continuing education, and tuition assistance for the first responder class taken by the new members are lacking. Budgetary restraints severely limit the growth of the service.

Although facing an uncertain future and needing some significant changes, the students staffing WPI EMS intend to continue the legacy of superior patient care in accordance with the school's goal of keeping its students safe.

## Materials and Methods

### Materials

A copy of 105 CMR 170.000-172.000 (APPENDIX XIII), The Commonwealth of Massachusetts EMS law, was obtained from the Secretary of the Commonwealth. Additionally, a copy of the Ambulance Equipment list Basic Life Support (A/R 5-401) was downloaded from the Massachusetts Office of Emergency Medical Services website. A copy of the WPI constitution, bylaws, protocols, and current equipment list were obtained from the WPI EMS leadership in addition to the past and current budget allocations and expenditures. Previous IQPs relating EMS were reviewed in WPI's library.

### Survey

A ten question survey (Appendix I) was developed using Survey Monkey. A link to this survey was sent to each region coordinator of the National Collegiate Emergency Medical Services Foundation (NCEMSF) the beginning of January 2010. Each coordinator was asked to forward this link to the student leader responsible for each service in their region. An additional request was sent to the WPI Chief of EMS to use as a comparison.

The survey requested information from each school that included demographics, organizational structure, budget, support structure, respondent's status in their EMS organization, and level of service provided. Responses were reviewed and several organizations were chosen for more in depth study.

### Interviews

#### *Interviews of College EMS Programs*

A phone interview template (Appendix II) was created using the specific problems of communication, resources, and personnel as a guide. Schools were selected for the phone

interview from their answers on the online survey based on their proximity to WPI and their comparability in size and function to WPI. Additionally, schools that noted they were either very unsatisfied or highly satisfied with the operation of their EMS program were chosen to be included in the phone interviews. An email was sent to the student leader of each of these schools requesting to schedule a time for a phone interview.

Phone interviews were conducted between January 2010 and March 2010. Responses were organized in a table format that allowed for direct comparison between schools. Some responses were normalized for variations in size for comparison purposes.

***Interviews of Administrators***

Director of Public Safety

An interview was conducted with the Director of Public Safety at WPI regarding the potential use of a response vehicle on campus. The interview was conducted to gauge the support for the expansion of the services at WPI and to determine the process for purchasing a vehicle. After her support was determined, information regarding which vehicle would be most appropriate and financials associated with this upgrade were discussed.

Administrator of Academic Programs and Associate Professor of Physical Education

The Administrator of Academic Programs was interviewed to determine the process for adding an EMT class to WPIs Course Catalogue. He directed the team to the Associate Professor of Physical Education. An interview was conducted to evaluate the possibility of adding an EMT course since the Department of Physical Education has the ability to add "miscellaneous" courses that do not need vetting by committee process.

EMS Educator

An interview was conducted with the primary instructor for the WPI EMS First Responder class, regarding his availability, qualifications, and detailed fees to provide WPI with a semester long EMT program.

## Seminar Attendance

At the 2009 and 2010 NCEMSF conferences, members of the IQP team attended seminars related to personnel recruitment, retention, funding as well as obtaining and operating a vehicle. The knowledge gained from this participation contributed to the details and direction of this paper.

## Legal Review

The Ambulance Equipment Basic Life Support (A/R 5-401) list was abbreviated to eliminate equipment required for a full-size ambulance. The current WPI equipment list was compared to the abbreviated list and a list of gaps was created. Additionally, the gaps were categorized into First Responder requirements and Basic Life Support requirements.

## Results

### On-line Survey

The team received 19 responses to the on-line survey. In the case of multiple responses from the same service, the highest responding officer/member's survey from each school was included in the results. A high proportion of responses were from schools on the East Coast, although a couple of colleges in the Mid-West completed the survey as well. Colleges of varying sizes are represented in the survey results.

When asked "What is the level of care your service provides?" Seventy-nine percent of respondents said that they are at the level of Basic Life Support (EMT-B), sixteen percent are at the lower level of First Responder, and five percent are at the higher level Advanced Life Support (ALS).

Oversight of the program within the campus structure was gleaned through the question "Who in campus administration oversees the program?" Sixty-eight percent fall under the campus police or public safety, twenty-one percent responded that campus or student health oversaw their program, and two percent were supervised by other departments in the school such as Environmental Safety.

Thirty-seven percent of campus EMS squads receive their funding from Public Safety or Campus Police, twenty-six percent noted it was from a school department other than the Student Health, Student Government, or Campus Police, twenty-one percent receive funding from student government and sixteen percent from campus or student health.

The majority of responses were from the school's highest student EMS officer. (Table 1)

| Position in School's EMS Service | Percent Respondents |
|---|---|
| Highest Officer | 79% (15) |
| Second in Command | 11% (2) |
| High in Chain but not in first 2 positions | 5% (1) |
| Low in Chain but defined leader | 5% (1) |

**Table 1: Position of respondents in their service**

Detailed responses by school to the online survey are found in Appendix III, Table 1-2.

## Interviews

### *College EMS Programs*

Schools chosen for an additional interview, Clark, RPI, Brandeis, and John Carroll EMS services, were detailed on a matrix for comparison to WPI.

**Table 2: Phone Interview Results**

| | WPI EMS | Clark EMS | RPI Ambulance | Brandeis EMS | John Carroll |
|---|---|---|---|---|---|
| Founded | 1990 | 1980s | 1970s | 1983 | 2002 |
| Current Level of Service | First Responder | First Responder | BLS | BLS | BLS |
| Current Budget | $5,271 | $30,000 | $1,200 | $23,000 | $16,000 |
| Stability of Current Budget | Very Stable | Changes from year to year | Very Stable | Changes from year to year, with a guaranteed minimum budget | Very Stable |
| Current Space | Supply room in Founders and a Sleeping Bunkroom in Riley | A room in an on-campus house at Clark | A house | An office | Small room and a larger dorm room. |
| Current Officer Structure | **Four Officers**: | **Six Officers**: | **Eight Officers**: | **Six Officers:** | **Twelve Officers:** |
| | Chief, Operations Lieutenant, Service Lieutenant, and Personnel Lieutenant | Chief, First Assistant Chief, Second Assistant Chief, Treasurer, Captain, First Lieutenant, and Second Lieutenant | Captain, Three Lieutenants, President, Vice President, Secretary, and Treasurer. | Director, Operations Officer, Administration Officer, Training Officer, Treasurer, and Secretary | Chief, Deputy Chief, Assistant Chief, Treasurer, Secretary, Six Executive Officers, and an Assistant Executive Officer. |
| Current Number of Active Members | 25 | 30 | 25 | 67 | 50 |
| Stability of Active Member Numbers | No stability | Varies from year to year | Very Stable | Very Stable | Stable |
| How many members on a set shift | Ideally three and a supervisor | At least four people per shift | At least four people on the night shift | Four people | At least three and a duty officer |

| Shift Definition | **Three Shifts:** | **Two Shifts:** | **Two Shifts:** | **One Shift:** | **Three Shifts** |
|---|---|---|---|---|---|
| | 0730-1700 | 0800-2000 | 1800-0600 | 24 hours | 15:00-19:00 |
| | 1700-2330 | 2000-0800 | 0600-1800 | | 19:00-23:00 |
| | 2330-1700 | | | | 23:00-0:900 |
| Current Number of Undergraduates | 3,000 | 2,380 | 6,000 | 3,000 | 3,069 |
| Member Mobility | Walking | Walking | Nighttime: response vehicle Daytime: walking | Supervisors and Primary members: drive Secondary and Tertiary members: walk | Walking |
| Supply Mobility | Carried around by members | Carried around by members | Ambulance | Secondary and Tertiary members carry around a pack. Ambulance and supervisor vehicle are stocked | Carried around by members |
| Vehicle Costs | No vehicle | No vehicle | Fly car: paid for by student union | Ambulance and supervisor vehicle | No vehicle |
| | | | Ambulance: a few hundred dollars per year | $5,000 a year to maintain both vehicles | |
| Classes offered | First responder class | First Responder, and EMT class | EMT class | EMT class | EMT class |
| Certification Payment | Members pay for their own certifications | Members pay for their own certifications | Members do not pay for their own certifications | Members pay for their own certifications | Members pay for their certifications by working for a year on the squad. |
| Supervision | WPI Police | Clark Police | An advisor | Health Center and Campus Police | Health Center and Campus Police |

***Interviews of Administrators***

Director of Public Safety

The WPI Police Department (PD) has four vehicles. Three are used regularly and the fourth is used as a spare. Marked Vehicles include: 101, a Ford Expedition, and103, a Ford Interceptor, which is a caged police cruiser. Both are used as patrol vehicles. Vehicle 102 is unmarked and appropriated to the Sergeant. Vehicle 100, an older Jeep that is not in good repair, is a non-emergency vehicle and is solely used as a spare. The WPI PD has a budget of $17,500 to repair and maintain their vehicles. The budget for fuel is $26,935.

A new vehicle would be obtained through the purchasing department using a Lease to Purchase arrangement. Payments would be either monthly or annually, and after about three years, the remainder of the contract would be paid off and the vehicle would then be acquired by the Institute. WPI uses MHQ in Marlborough, Massachusetts, to obtain their vehicles. This company also does the detailing and customization of the vehicle to WPI police specifications.

Communication is accomplished with two-way radios installed in the vehicles. They are purchased and programmed at WORAD, a local distributor and maintenance company. Each officer is also assigned a portable radio.

The interviewee supported the upgrade of WPI EMS to an EMT-B squad. She also expressed support for expanding the service and the response to the community. She was in agreement that an upgrade to an EMT-B program will provide a better service to WPI students, faculty, and staff.

Administrator of Academic Programs

The process to add a class to the WPI Program Catalog was reviewed. An “experimental class” may be added on a temporary basis without Faculty approval. Once the probationary

period has passed, the class is reviewed and must be approved in order to continue to be offered. All new classes need to be presented to the Faculty by the sponsoring Department Head. Exceptions to this process are the "miscellaneous" classes provided under the Physical Education Department. It was recommended that the team discuss the potential of offering an EMT-B class with the Physical Education Department.

Associate Professor of Physical Education

The Professor indicated he was interested in offering an EMT-B course for academic credit. The limiting factor was the cost of the course as there was no funding available in their department's budget. Should funding be secured elsewhere, he supported the addition of the course as a Physical Education offering.

EMS Educator

A quote for the costs associated with the provision of an EMT-B course was obtained. (Appendix IV) In addition, the instructor provided a proposed schedule with his requirements for teaching the course. (Appendix V)

**Seminar Attendance and Legal Review**

The knowledge obtained from attendance at the Seminars and the Legal Review is found the Discussion Section.

# Discussion

## History of WPI EMS

WPI EMS was founded after three WPI students completed an IQP investigating the use of a first responder service on campus. In 1990, a provisional unit was established. Students began responding to medical calls on campus with the WPI Campus Police. The eventual goal was to "achieve a level of medical competence higher than that of the present first responders of campus police officers. By Massachusetts state law all uniformed law enforcement personnel, as well as fire personnel, are required to be trained as first responders (Massachusetts General Law 111c) this does not exclude the WPI police."[3]

While the three founding members of the WPI EMS squad succeeded in establishing a First Responder service on campus, it joined the ranks of many such units operating throughout the country on campuses of all sizes, each with its own unique system.[3]

In the beginning; however, "…frequently, discussions on the topic of campus EMS were shunned as inappropriate or obscure. As a result, the campus EMS groups that existed were isolated since there was no good forum where they could openly communicate with each other. In 1993, in response to a need for information exchange among campus EMS groups, the National Collegiate EMS Foundation (NCEMSF) was established."[4] WPI has been a member of NCEMSF since it began. In 2009, the NCEMSF reported membership from 248 collegiate EMS groups varying in level of care from solely providing basic community education to advanced life saving care.

In the years since WPI EMS was established, the squad has been unable to advance in its level of emergency medical services. While squad protocols have been updated in accordance

with Massachusetts state law, the squad has not yet achieved the ability to implement the full scope of the medical protocols above the level of First Responder.

WPI EMS is proud to be one of the oldest services in attendance at the annual conferences; however, WPI EMS is one of the least medically advanced services. The standard of care for collegiate emergency medical services is provision of Basic Life Support (EMT-B) services with the supported by utilization of response vehicles by members for calls. Some services have even expanded their service to their local communities.

## Communication

### *Communication with WPI Administration*

The communication pathway between the Institutes' Administration and the WPI EMS student leaders is not clearly delineated. Crucial information passes from Department Head to Department Head. Information is then passed down the ranks within a department, but many times is not communicated to the EMS leadership. For example, several memorandums regarding the 2009 H1N1 influenza were distributed from Health Services to various departments. The EMS leaders became aware of the information through Resident Life briefings, rather than in their capacity as officers in the EMS service. This lack of information sharing, in this case, caused the use of the ambulance service and transportation of a student to the hospital. Instead, the use of an on-call medical provider's instructions and treatment in-house was the expected standard of care that had been communicated via memo. The lack of communication led to an unnecessary expense and inconvenience for the student, the Worcester Fire and Rescue, and the already overburdened Emergency Department.

The EMS service leadership has never viewed the campus disaster plan nor participated in any drills of the plan. Membership on the committee that creates, tests, and revises the plan

would close this gap. In the 20 years of service provided by WPI EMS, three mass casualty incidents have been experienced and were recognized by the EMS service. Response to these incidents, had the leaders been apprised of the disaster plan, would have been more organized and efficient. Inclusion of the WPI EMS Service leadership in the disaster plan is critical to ensure a coordinated, organized, efficient, and adequate response to any on campus emergency.

***Communication Needs***

Officer are elected and installed annually every March. This routine turn-over can cause inconsistency in the application of the mission and vision of the service. The new leadership starts without any formal or informal orientation to their leadership position and without the benefit of institutional memory that could be provided by the out-going officers. Any momentum of membership and leadership is lost from year to year. A continuity book, such as used by the military, provides a resource for documentation of contacts, best practices, forms, regulations, and other specifics needed to be proficient in each leadership position. A table of contents and description of contents for a proposed EMS continuity book is located in Appendix VI.

## Resources

***Equipment***

Required

**General Supplies**

By law, all ambulance services in the Commonwealth of Massachusetts are required to carry specific equipment on their vehicles. (Appendix VII) This list (A/R 5-401) includes essential personal protective equipment (PPE) for the medical providers, as well as, medical materials such as bandages and medications. Currently Massachusetts OEMS does not publish a list of the equipment that is required for non-transporting EMS services. A/R 5-401 was

modified to provide a detailed list of equipment to be accessible to a non-transporting EMS service by removing items specific to patient transport. (Appendix VIII)

### Transportation

Even modified, the list of supplies necessary to be available at an emergency call is relatively extensive. Should all the supplies in the modified list be appropriately in a pack, members would be unable to physically transport these supplies and would need a method of transportation that will prove them with a way to bring all the equipment to a call. The majority of other collegiate services responding to the survey and operating at a non-transport campus emergency level utilize at least one "fly-car"[5]. A fly-car often is a sport utility vehicle (SUV) that is used to quickly respond to an emergency, carrying the medical provider and the medical equipment that may be needed. This vehicle is not designed to carry a person in need of medical care but must have a sufficient amount of space to carry all essential medical equipment and EMS providers to the scene. Transportation of sick or injured has additional requirements not found in a "fly-car" under regular circumstances. In extraordinary situations, transportation could be accomplished using the fly-car, which should therefore be of sufficient size and configuration to be capable of transporting a patient in the supine position.

In addition to transporting supplies, the operation of a "fly car" would ensure patients are seen in a prompt manner with the equipment they require. Studies have shown that patients have the greatest chance of survival if they receive definitive care within the first hour following a life-threatening emergency[6]. In pre-hospital care, this "golden hour" is further reduced to the "platinum ten", referring to the time from injury to the first interventions by trained providers[7]. In some situations, such as cardiac or pulmonary arrest, the chance of survival drops considerably after only a few minutes without emergency care. WPI EMS providers average a 5-

10 minute response time on foot with the very basics of equipment. Typical response time for the WPI Police is 2-3 minutes from the time of dispatch.

### Radio Communication

EMS members must be able to communicate with each other and dispatch at all times during a medical call. The most common method of communication is by two-way radio. Ideally, each member on duty should have a two-way radio on his or her person at all times. In order to ensure a radio is available for each member on duty, WPI EMS requires the maintenance of eight radios, three radios to be used by the members on duty and one radio to be used by the on-call supervisor. Because WPI EMS shift changes occur over a thirty-minute period, there is a need for four radios to allow members to sign on duty without waiting for another member to check in a radio. WPI EMS is often requested to cover sporting events or large gatherings, which necessitates the assignment of additional EMS personnel, resulting in the need for six or more radios and packs to be in service at the same time.

Currently Available

### Supplies

Currently, WPI EMS carries a "first in" bag consisting of the items that would be required within the first five minute of contact with a patient. These supplies include both personal protection equipment (PPE), such as gloves and goggles, as well as medical supplies, such as gauze, oral airways, and bandages (a complete "first-in" bag supply list is available in Appendix IX). Because of the limited nature of the supplies a first responder can carry, there is no oxygen or automated external defibrillator (AED) available immediately. If a police officer has not already responded to the call, members may request that the police officer bring oxygen or an AED to the scene. Once established at the scene, there is often no one available to retrieve

these items as the EMS member cannot leave the patient and the police officer must remain to secure the scene.

On-shift activation requires the EMS members to sign out a pack, radio, and access card. During their shift, they are responsible for keeping the equipment within close proximity at all times so they may respond to a call anywhere on campus. The typical duty pack without the full range of appropriate supplies weighs approximately fifteen pounds. Additionally the student is also carrying his/her own school supplies. Oxygen cylinders are available to compliment their pack. Despite the frequent use of oxygen, most choose not to due to add them to their pack because of the increased weight.

### Communication

WPI EMS owns five radios that are available to members for use during shifts. In addition to the radios, WPI EMS owns five pagers and each WPI EMS officer and supervisor is issued a one-way radio pager to monitor calls. Both the radios and pagers have a "silent mode" that blocks out all radio chatter on the police frequency until the radio or pager is tripped via an audio tone by the WPI Police dispatcher. This mode is particularly useful during class or other meetings where the constant radio chatter would be disruptive. Additional pagers and radios are needed to provide for the expansion of the available personnel.

### Transportation

WPI EMS members are not allowed to drive personal vehicles to calls by Institute policy. They may, however, ride with the WPI Police. Depending on the member's location prior to the call, it may not be possible to obtain a ride and the member must walk. In the last few years, typically only WPI EMS officers and supervisors were able obtain rides to the scene and this is reflected in the response time of WPI EMS members. During periods that the majority of calls

are handled by general members on foot, the average response time is 9.9 minutes, while the average response time for an EMS officer transported by WPI Police is only 3.1 minutes.

Gap Analysis

When one compares the current list of supplies, carried by each EMS member to a call, to the modified list, generated from A/R 5-401, a substantial list of deficiencies is observed. Listed below is the list of equipment that should be available, but is not, to each First Responder:

- Child and Infant Bag Valve Masks (BVMs)
    - BVMs are a type of oxygen mask used on patients when they are either not breathing or not breathing adequately enough to sustain life. WPI EMS currently carries only the adult sized masks.
- Child and Infant Sized Oxygen Masks (both Non-rebreathers (NRBs) and Nasal Cannulas (NCs)
    - Non-rebreathers are oxygen masks given to patients who are having trouble breathing, but can breathe adequately on their own. Nasal cannulas are a type of oxygen mask placed in ones nose. These are given to patients who can breathe normally, but would benefit from extra oxygen. The smaller pediatric sized masks are required to provide supplemental oxygen to pediatric patients and currently WPI EMS carries only adult sized masks.
- Gas/Battery Powered Suction Unit
    - WPI EMS currently carries a smaller hand held suction unit that does not provide as much suction as a gas or battery powered unit. The hand-powered units are sufficient for use in a first in bag; however, any serious call requiring suction

would benefit from the additional power and suction of a gas or battery powered unit.

- Padded Board Splints (two each, 4.5 feet and 3.5 feet)
    - WPI EMS currently carries thirty inch SAM™ Splints. These are more than adequate to replace the fifteen inch padded board splints listed on A/R 5-401; however, they cannot replace the 4.5-foot and 3.5-foot splints.
- Child Cervical Collar (adjustable)
    - Presently, WPI EMS does not have access to a child sized cervical collar. In the event that a child size collar is needed, one person on scene would need to take complete manual stabilization until an ambulance service or the fire department arrives with a cervical collar. This increases the overall risk to the patient.
- Long Spine Board (including straps and padding)
    - Like child cervical collars, these are not available to WPI EMS members. In addition to the reasons listed above about cervical collars, long spine boards allow EMS personnel to move a patient with a suspected spinal injury, without additional risk to the patent. Once secured to a spine board, the patient's head no longer needs to be manually stabilized and all members can work on treating the patients other injuries.
- Kendrick Extraction Device (KED)
    - The KED is used for immobilizing the spine of a seated patient before transferring them to a long board. Like the long board, WPI EMS members do not have access to a KED while on duty.
- Obstetrics Kit

  - WPI EMS members are trained to deliver babies in the field if required. The special equipment and sterilized supplies in this kit provide the maximum amount of protection to the mother, newborn, and provider.
- Epi-Pens
  - The WPI EMS medical director and WPI Director of Health Services both support the addition of Epi-Pens to the available supply list. Epi-Pens are epinephrine auto injectors for use on patients displaying signs of an allergic reaction. A delay in treatment can be life threatening.
- Large Adult, Child, and Infant Blood Pressure Cuffs (BP cuff)
  - Blood pressure is an important indicator of the health and stability of a patient. At present, WPI EMS members carry only an adult sized BP cuff. If they were to encounter a patient too large to use an adult cuff on, or a child patient, they would be unable to monitor this patient's blood pressure.
- Triage Tags
  - Triage tags are used by the first medical provider on scene, when an incidence produces more patients than there are available medical personnel, to quickly classify each individual patient into one of four priority groups. Each group describes a patient's severity based on their injuries as well as determines how much they would benefit from prompt treatment.
- N95 Respirators
  - N95 respirators provide additional protection against airborne pathogens then that of surgical facemasks. Upon joining the squad, each EMS member is fitted for and issued a mask. Due to EMS's limited supply of masks and the need to protect

the integrity of the mask from crushing these are not stored in the packs. Members must remember to carry their N95 to calls. Most often members do not have these masks with them at calls putting them at risk of exposure to aerosol organisms such as influenza.

If WPI EMS were to upgrade their level of care to BLS (EMT-B), by Massachusetts protocol, they would be required to carry the following additional items:

- Traction Splints (both child and adult sizes)
- Oral glucose and wrapped tongue depressors for administration
- Aspirin
- Activated charcoal with a measuring device

***Funding***

Current Situation

The present funding is inadequate for the WPI EMS service. WPI EMS currently operates on a budget of $5271. This funding is provided from WPI's general operating fund and managed by the WPI Police Department. The total budget amount is further broken-down into four accounts: Supplies, Uniforms, Printing, and Professional Development (Table 2). From Fiscal Year (FY) 02 to FY05 WPI EMS contracted for an EMS consultant and there was an additional budget line of $10,000 for his services. Unfortunately the recommendation provided by the consultant's services is unknown. The supplies, uniforms, printing, and professional development accounts, however have not changed in the last nine years. As inflation has increased the cost to acquire supplies, the purchasing power of the WPI EMS budget has decreased.

| ACCOUNT | AMOUNT |
| --- | --- |
| Supplies | $3152 |
| Uniforms | $1009 |
| Printing | $103 |
| Professional Development | $107 |
| Total | $5271 |

**Table 3: Budget by Account**

## Growing Call Volume

Over the last nine fiscal years, WPI EMS has experienced an overwhelming growth in call volume. In FY2001, WPI EMS responded to approximately 70 calls. In contrast, half way through FY2010 WPI EMS had already responded to over 90 calls for service. This change corresponds to an increase of over two-hundred percent over the last nine years. As WPI continues to expand, calls for service are expected to continue to grow (Figure 1) and the budget needs to be increased to keep pace with growth.

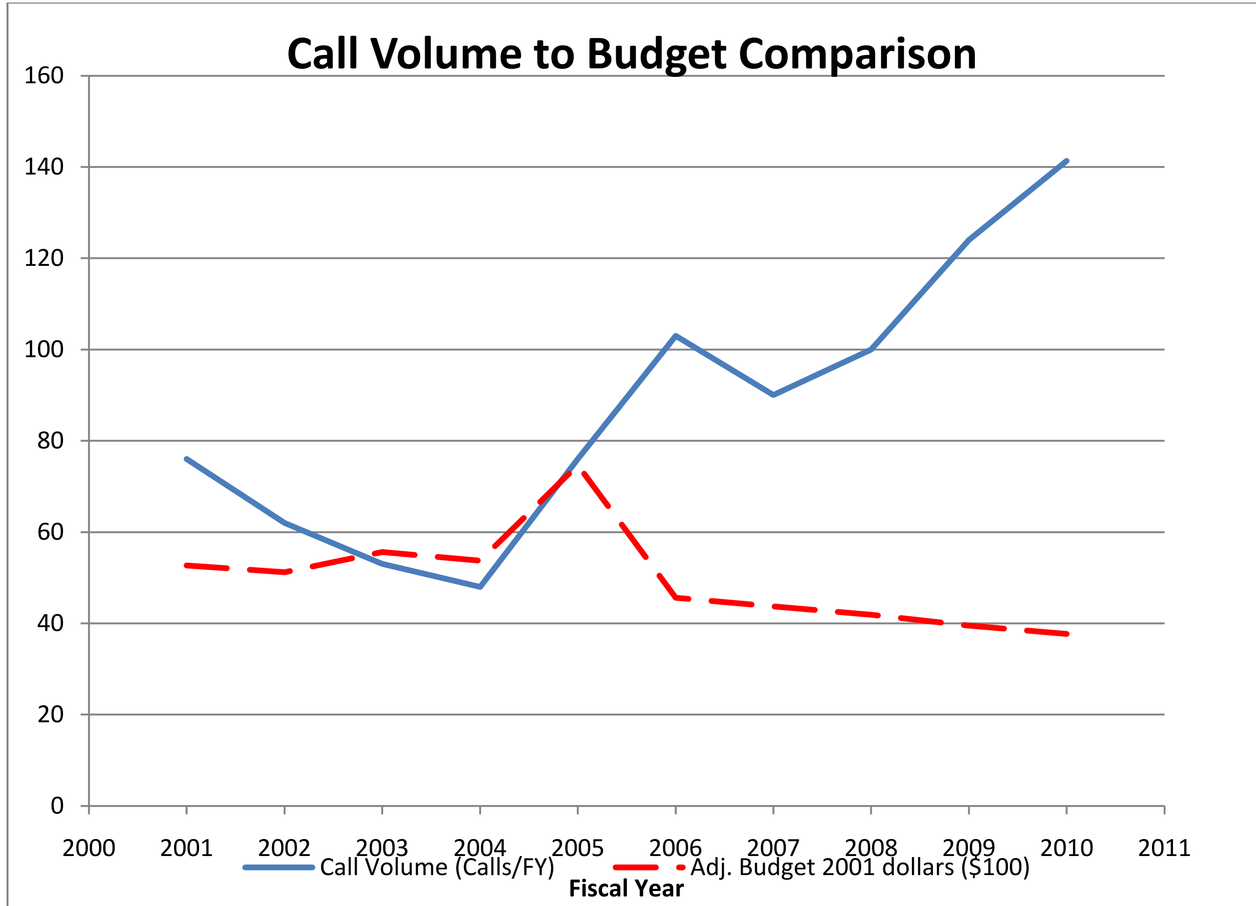


**Figure 1: Call Volume and Budget (2001 Dollars)**

<u>Capital Expenses</u>

To purchase a vehicle and close the equipment gap, outlined in a previous section, the IQP team proposes a one-time investment of approximately $55,000. This amount includes the cost to purchase and appropriately configure a response vehicle ($47,000) and the cost to purchase the identified equipment ($8,000) (Appendix X). The cost to obtain a vehicle has been approximated based on a previous IQP[8] and current new vehicle pricing on the Ford website[9]. Definitive pricing research would need to be conducted by campus administration and WPI EMS leaders prior to the purchase of a vehicle.

## Annual Expenses

### General Funding

In addition to the capital expenses required to close the equipment gap, a yearly increase in the EMS budget is required. After analyzing previous fiscal years shortfalls, an estimated overall increase of $2000 to the baseline budget is required to purchase and maintain the equipment and replace the consumables. This amount also includes the training on equipment use. Once the base budget is adjusted, the overall budget would then require adjustment for inflation annually (Appendix XI).

### Vehicle

With the purchase of a vehicle, an estimated annual cost of $8000 would be required for fuel, maintenance, and inspection costs[10]. In order to ensure the safe operation of the vehicle, student members should be provided with an emergency vehicle operations course. These courses are not required in Massachusetts for EMTs to operate ambulances and consequently there is no local public program. It was found, through online research, that such a program is available through the National Safety Council for $55.00 per student. However, this course does not, as it is on-line, offer a hands-on practical portion which is highly recommended. Should this be the selected means of training, additional funding would be necessary. As the WPI Police must learn different driving techniques for operating an emergency vehicle while attending the police academy, they would have the requisite knowledge and skills to impart to the WPI EMS service. This is a possible alternative to provide members necessary knowledge and include a practical demonstration of competency, utilizing existing resources.

### EMT Program

The cost of an EMT course is estimated at $12,000 per course for 25 students. This cost includes the materials, supplies, and instructor fee. To accomplish the applied skills training, the course instructor would require assistance from WPI EMS members (as outlined in the training syllabus in Appendix V) which would also provide the current members with skill reinforcement.

The instructor recommended setting the per student cost at $750. A class with more than 16 students would net WPI the student fee for student number 17 and beyond. To obtain state licensure additional fees of $350 would need to be paid by the student.

The total cost to the student to obtain an EMT certification is $1100 ($750 course fee and $350 licensure fees) and is in addition to WPIs tuition. To help defray this cost, and to promote student participation, a portion of the course fee could be covered by WPI EMS. To elicit ownership and commitment to the course, the student would be responsible for the remaining portion of the cost of the course. The amount WPI EMS would cover for each student would vary depending on the student's intentions to serving the WPI community. Students committing to serve WPI EMS under preset conditions would be given preference for assistance with the course fee. The licensing fees would remain the responsibility of the student. WPI EMS expects to need approximately $9000 annually to provide anywhere from 23 – 45 students partial payment of course fees ($375 to $200 respectively), which would substantially increase the potential members available to the service.

***Space***

Previous Space and Location

- The previous bunkroom was located in what is now the WPI Police Station in the basement of Founders Hall.

- That space consisted of two rooms: a supply room and an officer's room
- In the officer's room, the WPI EMS squad officers conducted meetings and securely stored their paperwork.

Current Space and Location

WPI EMS is in possession of two converted custodial closets that function as a medical supply room/office/medical record storage and a bunkroom. The former is located in the basement of Founders Hall, while the latter is located on the fourth floor of Riley Hall. (Appendix XII, figure 1 and figure 2) The medical supply room is used frequently throughout the day and is used for a variety of functions such as: replacement medical equipment storage, personnel paperwork storage, meeting space for a limited size group (3-4), location of the sign on/sign off duty computer, and storage for necessary on-duty equipment. The bunkroom is utilized less frequently; however, that does not make it less important or necessary. Various members, living off campus, can be found sleeping there while taking an overnight shift. It is also used to store extraneous supplies, not frequently utilized by WPI EMS.

- Medical Supply/Office/Meeting Space
    - Dimensions:
        - 9' 9" by 11' 11"
    - Specific equipment located in the bunkroom:
        - Trash can
        - Biohazardous trash can
            - Used to throw away biohazard waste such as bloody gauze
        - Runsheet box
        - Fax machine

- Duty sign on/sign off computer
- Telephone
- Paper shredder
- Five drawers for officer paperwork storage
- Three drawers for the storage of pens, five radios, and ten batteries
- Desk
- Segway (out of service)
- Nine jackets
- Seven EMS packs
- Supply cabinet
- Uniform Cabinet
- Keybox
- Two chairs
    - Desk chair
    - Table chair
- Three MCI kits
- Five oxygen cylinders
- A wooden backboard
- Four drawers for the storage of necessary on-duty paperwork
- Clock
- White board
- Notice board
- CPR mannequins

        - Two drawers for the storage of first responder class materials
        - Paper plates and utensils
        - Cooler
        - Two racks with three shelves that hold the seven EMS packs and three MCI kits
- The Riley Bunkroom:
    - Dimensions:
        - 7’ 9” by 16’ 6” footprint; however, clearance is 3 ft, 8in from the ground (the roof begins to slant converting the top of the room into a right-triangle).
    - Specific Equipment located in the bunkroom:
        - Bunk bed with two mattresses
        - Five pillows
        - Coat rack
        - Four chairs
            - Desk chair
            - Three table chairs
        - Phone (out of service)
        - Television
        - Clock
        - Linens
        - Trash can
        - Kendrick Extraction Device

- SAM™ Splints
- Three racks with three shelves for storage of linens, extra supplies, and pillows
- Three blankets
- Infant CPR mannequins

Ideal Space and Location

An ideal bunkroom for WPI EMS would consist of seven rooms including a bathroom and a kitchen. In an ideal situation, every room would be in the same area. This would eliminate the concerns of WPI EMS members traveling from one part of campus to another at night in order to procure food or supplies. Each room is detailed below with an explanation of its function in the EMS service and justification for its requirements.

### Clean room (medical supply storage)

One of the rooms needed is a clean room for medical supply storage. The Massachusetts Office of Emergency Medical Services (OEMS) and the Department of Public Health (DPH) regulations specify that all EMS services must have an "adequate and clean enclosed storage space for linens, equipment and supplies…[the] storage space shall be so constructed to ensure cleanliness of equipment and supplies.[11]" (Full Regulation, Appendix XIII) The current equipment storage space used by WPI EMS fails to meet these standards.

### Administrations Office for Officers and Supervisors

The WPI EMS officers do not have a place where they can conduct business other than the current medical supply room. The size of the room and multiple functions of the room, limits the number of personnel that can be present in the room for a meeting. Additionally, there is only seating for four individuals.

Officers must meet periodically and conversations often involve discussions of confidential matters; however they are frequently interrupted by personnel on shift needing supplies, personnel using the space to complete paperwork or by personnel during a shift change. Also, due to the restrictive room size, there is inadequate workspace for the officers to keep secured records. During this IQP, the lack of storage for records was evident as the team was unable to locate historic call sheets and budget details.

There is only one computer in the EMS multifunction room. That computer is programmed into a server that only allowed members to sign on or off duty. Should a member need to access WPI policies or protocols or access the internet for research or guidance, such access is not available.

### Workroom for shift members

There is also no space for on-shift personnel to work if they do not live on campus. WPI EMS does allow its members to stay anywhere on campus while on shift, including the residence halls. However, if a member does not live in the residence halls, he/she may spend hours on-shift in the multifunction room. Not only is this room windowless and without computer access for other purposes, it lacks ventilation.

### Common/Training Area

Currently, WPI EMS does not have a dedicated training room. Initial and on-going training is one of the most important aspects of emergency medical service. No matter the length of time spent in EMS, to maintain competency and keep apprised of the new developments in the science, members must have on-going training. While WPI EMS had few problems procuring a classroom on campus to conduct general training sessions, it is not appropriate to conduct a Quality Assurance session in a public space. During these sessions, run sheets are reviewed and

discussed with full membership. Health Insurance Portability and Accountability Act[11] (HIPPA) rules are very strict on who has a need to know a patient's personal information. With the confidential nature of these meetings, potential breaches in patient information from other students overhearing the discussion, provision of a meeting room dedicated to WPI EMS is critical in meeting HIPAA requirements.

When not being utilized for training sessions, the training room could also function as a common area. A common area would promote socialization and team building and be available to those members who do not live on campus or otherwise have a place to remain during shifts. The area would be a place where members could relax, watch television, or talk with various other members of the squad.

### Bedroom

A bedroom is a necessity for any twenty-four hour EMS service. It is specifically necessary for WPI EMS to have for members who reside off campus and may be too far away to stay while on duty. A clean sleeping area, close to campus, is necessary to ensure quick response times. In addition, WPI EMS is asked to cover numerous details over the summer months and during vacation times and often members of the WPI EMS service come from their homes to cover these details.

### Kitchen

A kitchen is a necessary component of any EMS bunkroom. Members staying in the bedroom may not be on-campus students, and they may not have a meal plan. Also, during the summer and winter breaks, there are limited on-campus dining hours. A kitchen in the EMS bunkroom would allow members to purchase, store, and prepare food. A kitchen would also be economically beneficial for many EMS meetings and events.

### *Bathroom*

Members spending their shifts in the bunkroom would need access to a bathroom and a shower.

### Required Furnishings

Furniture needed for a practical and adequate bunkroom:

- Four beds (two bunk beds )
    - There are three members on shift at a time, plus one supervisor. Each of these people should have their own bed available.
- Six desks
    - Desks for the use of each member on a shift; three for the members, one for the supervisor and two for the officers.
- A couch plus two living room chairs
    - These would be for the common/training area for members to sit down to relax during their shift. WPI EMS is currently in possession of a television for members to watch.
- Two filing cabinets
    - For record storage of both personnel records and patient care reports (PCRs).
- Three lockable supply cabinets
    - For securing equipment and consumable supplies.
- Four shelving units
    - These units would each be used to store equipment such as the EMS packs and training materials.
- Nine office chairs

    - One for each of the desks (6), plus one guest chair for each supervisor/officer desk (3). These would also be used for members during meetings.
- Two folding tables
    - These tables would each be used for training purposes.
- Twenty to twenty-five folding chairs
    - These chairs would also be used for meetings and training sessions.

## Personnel

### *Current*

Membership

Members of the WPI EMS service have a range of qualifications from First Responder to Paramedic. Regardless of previous training, everyone who joins the service begins as a probationary member. During probation, members only respond to calls when accompanied by a General Member, Supervisor, or Officer of the WPI EMS service. They are only allowed to give patient care only under the direct supervision of a higher ranking member to ensure that the probationary members understand service protocols and can provide appropriate emergency care.

Once a probationary member has participated in two EMS calls, or has been a member of the squad for two consecutive terms, he/she is allowed to submit a request for an evaluation and general membership. The probationary member then meets with the EMS officers, reviews the calls he/she participated in and is presented with some case scenarios to discuss. After the meeting, the officers decide whether to promote the probationary member to General Member status.

General members are, by design, the staffing component of the EMS service. General Members independently cover shifts and respond to calls without a higher ranking member

present. General members are classified into two groups: general members First Responders and general member EMTs. General member EMTs function at the same first responder level as the rest of the EMS service; however they hold certification as EMTs in the United States. This distinction is used to define the ranking member during a call.

General Members, who demonstrate sound decision making and clinical skills, may be promoted to Supervisor. Supervisors provide back-up coverage each shift and oversee day-to-day operations, in the absence of an Officer. Supervisors report to the Operations Lieutenant.

Finally, general members may be elected as service officers. During C-term, there is an election for the four officer positions: Chief, Operations lieutenant, Service Lieutenant, and Personnel Lieutenant. During D-term the new officers are sworn in and officially replacing the old officers.

Each officer has a job description of tasks of that position. Officers also perform supervisory duties in addition to the Supervisors. Officers are on call twenty-four hours a day in case of extraordinary circumstances.

The Chief is the highest ranking member of WPI EMS. The Chief holds full responsibility for the overall operation of the service and works closely with WPI's Chief of Police/Director of Public Safety, the WPI Police Liaison, and WPI Administration.

The Operations Lieutenant (OL) is the second in command and is responsible for supervising day-to-day operations of the service. The Supervisors report to the OL. They serve as the Quality Assurance (QA) managers for the service. By reviewing run reports filed for each medical call, they are able to determine the training needs of the service and are responsible to conduct or schedule training to meet those needs. The OL is considered the liaison to the internal WPI community.

It is the responsibility of the Service Lieutenants (SL) to manage the resources of the service. The SL manages the finances of the service and maintains adequate quantities of equipment and supplies. They also prepare and submit an annual budget report to the Chief of EMS.

The Personnel Lieutenant (PL) is responsible for the maintenance of the records of all current and past members. These records include files on each member's level of training, letters of commendation, and record of any disciplinary actions taken. In addition to the administrative duties, the SL is responsible for promoting squad unity. This is usually accomplished through "fun" events intended to improve the morale and cohesiveness of the members. Lastly, the PL is responsible for mediating conflicts between members.

*Recruitment*

Volunteer organizations must compete with other community organizations to attract the most capable and committed volunteers. Recruitment is key to the success and survival of any volunteer organization. WPI offers a wide variety of potential organizations available to students, of which, one is the EMS service. Competition to recruit EMS membership is on-going.

Currently, WPI EMS has two ways to recruit potential member. First, during the fall and spring activities fair, WPI EMS presents a table intended to attract student attention. Students who express interest are e-mailed by an Officer. Although the membership list may boast a large number of names, some of those that maintain membership do not become actively involved.

The second way WPI EMS recruits members is by offering a First Responder class in both the spring and fall semesters. The First Responder class is open to all students and faculty members of the WPI community. After passing the class, students are encouraged to join the

WPI EMS service. Approximately twenty-five percent, of any given class, become members of the service. Unfortunately only a few progress to General Member status.

Retention

"The best recruitment program is of little value if the organization cannot retain its members."[12] WPI EMS experience indicates that interest wanes if Probationary Members do not receive enough calls initially to stimulate excitement about the service, conversely too many calls may overwhelm the new member and cause them to withdraw from the service. Financial requirements often means students to have outside work or work study that occupies their free time leaving little time for volunteer service. Lastly, the requirements for becoming and remaining an EMS professional are time-consuming and costly.

Each year several WPI EMS members attend the NCEMSF conference. One of the lectures held this past year was a round table discussion about Recruitment and Retention. During this discussion, the leaders of collegiate EMS squads discussed their own retention issues as well as various ways those issues have been overcome. Most of the ideas for overcoming retention issues involved using squad bonding events and incentives.

***Ideal***

Upgrading the service to professional EMT-B status legitimizes the service as a serious response organization. The membership needs to be managed through policy to eliminate inactive members and those who are only on the service for the paid details. Advancing to use of students with EMT training, provision of appropriate supplies and a response vehicle, would enable each student to feel a better sense of accomplishment and pride in being a member of the WPI EMS service. Additionally, students participating would be recognized for their professionalism, time, and the commitment required to be a member.

The availability of an affordable EMT-B class is a proven solution to recruiting and retaining personnel. Clark EMS and RPI have both seen an increase in members and retention of members by offering this course. Ideally, once member participation increases, there will be a sufficient mix of students from different years to carry the service forward. This would eliminate some issues caused by officer turnover by providing a stable core from year to year.

Lastly, the ability of WPI EMS to offer incentives for its members would assist in recruitment and retention. Possibilities for these incentives could include: an EMS yearbook, the ability for EMS members to register early for classes, having a guaranteed on-campus room or just the ability to do a fun squad sponsored activity. As witnessed by other collegiate programs, social activities allow for the building of camaraderie and development of a bond between members.

## Conclusions and Recommendations

From January 2009 to January 2010, WPI EMS has responded to one-hundred and twenty nine calls as a First Responder service. The call volume has increased throughout out the years. As the demands on the service members increase, it is critical for the infrastructure support of the service to be solid and reliable. Communication between the facility and the student EMS leadership needs to be defined and solutions implemented to keep them apprised of important Institute protocols and plans.

Development and adoption of a Continuity Book for each officer will bridge the gap between out-going leadership and in-coming leadership. This will allow for continued momentum and advance of the EMS service from year to year. Likely, this small change will make taking office seem less daunting as the knowledge of contacts, history and past events will be available to the incoming leadership.

Covering the identified gap in currently supplied equipment will show the Institute's support for the EMS service providers. Addition of the necessary supplies to advance to an EMT-B level service, including the addition of a service vehicle, and appropriate space to facilitate operations, will demonstrate the commitment of the institution to providing a qualified emergency response to an on-campus need. Student providers have already demonstrated their intent to perform at this more advanced level through personal investment in knowledge and skills acquisition. Support to allow them to practice at this level and recruit additional members by assisting them to also obtain this training, would help the EMS service to be identified as a legitimate emergency response organization. Furthermore the Institute's commitment to provide a safe environment for all learners would be enhanced by the upgrade of their EMS service.

During the research for this paper, the IQP team uncovered a major underlying personnel issue, poor morale. Despite being responsible for medical calls that have serious implications, service members do not feel as though they make a difference in the WPI community. Service members feel they are not viewed with respect, commiserate with the responsibilities they hold. Not all collegiate EMS squads suffered from such a lack of pride. Research has shown that the more prestigious a collegiate EMS service, the higher the sense of member morale and enthusiasm. WPI EMS service feels that their contribution to the EMS response needs to be solidified, legitimized, optimized, and recognized by the Institute's Administrative structure.

The IQP team additionally found that each issue and deficient identified may have previously been considered optional but are now essential for efficient daily operations and the success of the service. Each issue is relatively small in itself; however, they each add to the struggles the current service is facing on a day to day basis.

It is therefore the team's recommendation that each issue: communication, resources and personnel, be individually addressed and rectified. Twenty years ago, it was the vision of an IQP team such as this, that WPI would successfully develop EMS service. We were proudly one of the first. Additionally, they envisioned the advancement of the service and its members to an EMT-B level to better serve the WPI students, staff, and faculty. Sadly we are one of the last to accomplish this portion of the vision. Now, on the twentieth anniversary of our founding, and in light of the complexities of today's society, it is time to advance the level of professionalism and the support of the WPI EMS service.

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## Appendix I: Online Survey

1. What service are you a member of?

2. My service's level of care is:

   a. Education (no medical care)

   b. First Responder

   c. Basic Life Support

   d. Intermediate Life Support

   e. Advanced Life Support

3. My service operates ________ vehicles

4. Who oversees your service?

   a. Campus Police/Public Safety
   b. Campus/Student Health
   c. Student Government
   d. Campus Fire
   e. An outside agency
   f. Another school department

5. My service's primary source of funding is:

   a. Campus/Student Health
   b. Fund raising
   c. Billing
   d. Grants
   e. Student Government
   f. Campus Police/Public Safety
   g. An outside agency
   h. A school department not listed

6. Please answer the following questions about your service

a. How many undergraduates attend your school?
b. How many calls per school year do you respond to?
c. How many officers/leaders does your service have?
d. How many total active members does your service have?
e. What percentage of your members are qualified to take medical calls without supervision?
f. To the nearest thousand what was your budget for the 09-10 school year?

7. On a scale of 1-5 (1=Strongly Disagree, 5= Strongly Agree) please rate how you currently feel about your service.

a. I am happy with my service's current situation.
b. My service has adequate funding.
c. My service's funding is fairly stable.
d. My service has reliable personnel.
e. My service has an adequate amount of space on campus.

8. Please rate the following based on your interaction with school administration. (Same scale as previous question)

a. I am given complete responsibility for the service's operation.
b. I am taken seriously on issues that relate to EMS
c. My service is kept well informed of issues that relate to EMS on campus.
d. My service is notified in advance of any policy changes that will affect our operations.

9. What is your position in your service?

a. Director/Chief/President (First in command)
b. Captain/Deputy Chief/Vice President (Second in command)
c. Lieutenant (High in chain of command, but not first or second)
d. Supervisor (Lower in chain of command but a defined leader)
e. General Member (Primary responsibility is to take calls)
f. School Administrator

10. Please provide any best practices or other information on how your service operates here.

## Appendix II: Phone Interview Template

- When was your service founded?
- What type of service is currently offered?
    - Basic Life Support?
    - Advanced Life Support?
    - First Responder?
- What is your budget?
- How stable is your budget?
- How would you describe your space excluding where you house ambulance
    - i.e. crew room
    - Storage
    - Work room?
- Describe your EMS officer structure/EMS hierarchy
- Does it work for you?
- How many active members on the squad right now?
- Does that vary a lot from year to year or stay sort of stable?
- How many on a set shift?
    - How would you define a shift?
        - How long does a shift run?
        - How many a day?
        - Do you run through summers/weekends/vacations?
- How many undergrads are currently enrolled in the school?
- How do you get around?
    - Vehicle?
    - Walking?
    - Segway?
- How do your supplies get around?
    - Vehicle
    - Carry around pack?
- If you operate a vehicle, roughly how much does it cost per year to maintain vehicle?
- How do you keep your members involved/active?
    - What professional development does your squad offer?
        - Continuing Education?
        - Attend NCEMSF?
            - Free?
            - Cost?
    - How do people get on the squad?
        - Do members pay for their own certifications?
        - Is it offered through school?
        - Is there an EMT class on campus?

- Who oversees your service?
    - Police
    - One person?
    - Health services

# Appendix III: Online Survey Results

| | Georgetown University | Radford University | University of Richmond | George Washington | Virginia Tech | John Carroll | WPI | University of Dayton | Lehigh | CMU | Penn State | Juniata College | U Penn | University of Toledo | Case University | MIT | Smith | U Mass | Brandeis | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Level of Care | BLS | BLS | BLS | BLS | ALS | BLS | FR | BLS | BLS | BLS | BLS | BLS | BLS | BLS* | BLS | BLS | FR | FR (EMT) | BLS | |
| Vehicle | 2 | 1 | 0 | 3 | 8 | 0 | 0 | 1 | 1 | 0 | 2 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 2 | |
| Undergraduate student population per | 3500 | 9400 | N/V | 4167 | 3250 | N/V | N/V | 7500 | 4856 | N/V | 20000 | N/V | N/V | N/V | 4228 | 4000 | N/V | N/V | 1750 | 4739 |
| Oversite of Program | Campus Health | Campus Police | Campus Police | Campus Police | Campus Police | Campus Police | Campus Police | Campus Police | Campus Police | Campus Police/Student Health | Student Health | Campus Police | Campus Police | Campus Police | Campus Police | Student Health | Campus Police | Environmental Health and Safety | Student Health | |
| Source of Funding | Campus Health | Dept not listed | Student Government | Campus Police | Campus Police | Campus Police | Campus Police | Campus Police | Student Government | Campus Police/Student Health | Student Health | Student Government | Campus Police | Campus Police | Other Department | Student Health | Campus Police | Environmental Health and Safety | Student Government | |
| Number of Undergraduates | 7000 | 9400 | 3000 | 12500 | 26000 | 3000 | 5000 | 7500 | 4856 | 5500 | 40000 | 1400 | 10000 | 19000 | 4228 | 4000 | 2700 | 18000 | 3500 | 9820 |
| Calls per year | 1000 | 215 | 150 | 900 | 1500 | 400 | 120 | 420 | 325 | 2500 | 1200 | 20 | 300 | 11 | 96 | 500 | 10 | 100 | 300 | 530 |
| Number of Officers/Leaders | 5 | 8 | 6 | 5 | 10 | 9 | 4 | 10 | 8 | 5 | 8 | 5 | 9 | 3 | 12 | 12 | 6 | 5 | 6 | 7 |
| Total active members | 100 | 20 | 20 | 60 | 45 | 45 | 12 | 52 | 45 | 43 | 65 | 20 | 89 | 7 | 65 | 70 | 20 | 55 | 65 | 47 |
| Member qualified to take medical calls without supervision | 25% | 30% | 50% | 20% | 60% | 60% | 43% | 70% | 22% | 10% | 60% | 50% | 18% | 100% | 15% | 45% | 100% | 40% | 1% | 43% |
| Appproximate Budget | $29,000 | $9,000.00 | $10,000 | 120000 | 93000 | 9000 | 5000 | UNK | 10000 | 12000 | UNK | 3000 | 20000 | 1500 | 9000 | 100000 | 2000 | 9000 | 22000 | 27265 |
| Budget per undergraduate student | 4 | 1 | 3 | 10 | 4 | 3 | 1 | 0 | 2 | 2 | 0 | 2 | 2 | 0 | 2 | 25 | 1 | 1 | 6 | 4 |
| Calls per student per year | 0.14 | 0.02 | 0.05 | 0.07 | 0.06 | 0.13 | 0.02 | 0.06 | 0.07 | 0.45 | 0.03 | 0.01 | 0.03 | 0.00 | 0.02 | 0.13 | 0.00 | 0.01 | 0.09 | 0.0736 |
| Qualified members per undergraduate | 280.000 | 1566.667 | 300.000 | 1041.667 | 962.963 | 111.111 | 968.992 | 206.044 | 490.505 | 1279.070 | 1025.641 | 140.000 | 624.220 | 2714.286 | 433.641 | 126.984 | 135.000 | 818.182 | 5384.615 | 979 |
| | | | | | | | | | | | | | | Events only | | | | Events only | | |

| | Georgetown University | Radford University | University of Richmond | George Washington | Virginia Tech | John Carroll | WPI | University of Dayton | Lehigh | CMU | Penn State | Juniata College | U Penn | University of Toledo | Case University | MIT | Smith | U Mass | Brandeis | Average |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I am happy in my current situation | 4 | 4 | 3 | 4 | 5 | 2 | 1 | 5 | 3 | 4 | 5 | 4 | 4 | 1 | 4 | 5 | 3 | 2 | 5 | 3.6 |
| We have adequate funding | 5 | 2 | 3 | 2 | 5 | 1 | 1 | 5 | 3 | 3 | 5 | 4 | 5 | 2 | 4 | 5 | 4 | 1 | 5 | 3.4 |
| Funding is stable | 5 | 2 | 4 | 4 | 5 | 3 | 4 | 5 | 4 | 4 | 5 | 4 | 5 | 2 | 4 | 5 | 4 | 4 | 5 | 4.1 |
| Personnel are reliable | 5 | 4 | 5 | 4 | 5 | 4 | 2 | 4 | 3 | 4 | 5 | 4 | 4 | 4 | 5 | 4 | 2 | 5 | 5 | 4.1 |
| We have adequate space | 5 | 2 | 2 | 1 | 1 | 2 | 1 | 4 | 1 | 2 | 4 | 4 | 5 | 3 | 5 | 5 | 4 | 3 | 5 | 3.1 |
| Student leaders have full responsibility for | 5 | 4 | 4 | 2 | 5 | 4 | 5 | 4 | 4 | 5 | 2 | 5 | 5 | 5 | 5 | 4 | 5 | 4 | 5 | 4.3 |
| taken seriously on EMS related issues | 5 | 4 | 2 | 4 | 5 | 1 | 2 | 5 | 1 | 5 | 5 | 4 | 5 | 2 | 4 | 5 | 4 | 2 | 5 | 3.7 |
| Kept informed on related EMS issues | 5 | 2 | 4 | 2 | 5 | 4 | 1 | 5 | 2 | 4 | 5 | 4 | 5 | 4 | 4 | 4 | 1 | 5 | 5 | 3.7 |
| Notified in advance of policy changes that effect operations | 5 | 2 | 2 | 4 | 5 | 2 | 1 | 5 | 1 | 4 | 5 | 2 | 4 | 1 | 4 | 2 | 1 | 5 | 5 | 3.2 |

# Appendix IV: EMT Class Quote

**WPI**

**EMT Class Proposal**

Class begins: 2/1/10
Class ends: 5/8/10

Per student cost: *$750.00*
Cost for primary instruction: *$12,000.00*

If WPI gets 16 students and charges 750.00 a person (current rate for class at Holy Cross) they will break-even. For every student over 16, WPI makes the cost of the tuition. The cap on the class would be 25.

| Enrolled | Cost | WPI Profit |
|---|---|---|
| 16 | 750.00 | 0 |
| 20 | 750.00 | $3,000.00 |
| 25 | 750.00 | $6750.00 |

SCEMS would require WPI assistant instructors during the class, for which EMTs on the squad would receive continuing education credits.

See perspective syllabus

## Appendix V: Proposed EMT Class Schedule

# SOUTH COUNTY EMS ASSOCIATES

# EMT-BASIC TRAINING PROGRAM

**WPI**
**Spring 2010**

| DATE | TOPICS | ASSIGNMENT | INSTRUCTOR |
|---|---|---|---|
| *Monday<br>February 1, 2010<br>6:00-9:00* | *MANDATORY CPR CLASS* | | |
| Wednesday<br>February 3, 2010<br>6:00-9:00 | Lesson 1-1 Intro to EMS | Pages 1-19 | |
| Saturday<br>February 5, 2010<br>9:00-12:00 | Lesson 1-2 Well-Being of the EMT<br>Lesson 1-3 Medical/Legal/ Ethical Issues | Pages 20-64 | |
| Saturday<br>February 5, 2010<br>12:00-3:00 | Lesson 1-4 The Human Body | Pages 65-104 | |
| Monday<br>February 8, 2010<br>6:00-9:00 | Lesson 1-5 Lifting and Moving | Pages 105-129 | |
| Wednesday<br>February 10, 2010<br>6:00-9:00 | Lesson 1-6 *Preparatory TEST (1)*<br>Lesson 2-1 Airway Lecture | Pages 1-129<br>Pages 130-170<br>Vital Signs<br>Anatomy | |
| Monday<br>February 15, 2010<br>6:00-9:00 | Lesson 2-1 Airway Practical Skills Lab<br>Module 1 Test Review | Pages 130-170<br>Sellick Maneuver<br>Station I | |
| Wednesday<br>February 17, 2010<br>6:00-9:00 | Lesson 3-1 Scene Size-up<br>Lesson 3-2 Initial Assessment | Pages 172-179<br>180-186 | |
| Monday<br>February 22, 2010<br>6:00-9:00 | Lesson 3-3 Focused History and Physical Exam: Trauma Patient<br>Lesson 2-3 *Airway Test (2)* | Pages 187-190 | |
| Wednesday<br>February 24, 2010<br>6:00-9:00 | Lesson 3-9 Patient Assessment Practical Skills Lab | Station III | |
| Saturday<br>February 27, 2010<br>9:00-12:00 | Lesson 3-5 Detailed Physical Exam<br>Lesson 3-6 Ongoing Assessment<br>Lesson 3-9 Patient Assessment Practical Skills Lab<br>Module 2 Test Review | Pages 191-206<br>Pages206-209 | |
| Saturday | Lesson 3-9 Patient Assessment | Pages 172-226 | |

| February 27, 2010<br>12:00-3:00 | Practical Skills Lab<br>Lesson 3-4 Focused History and Physical Exam: Medical Patient<br>Lesson 3-7 Communications<br>Lesson 3-8 Documentation | Pages 227-253 | |
|---|---|---|---|
| Monday<br>March 1, 2010<br>6:00-9:00 | Lesson 4-1 General Pharmacology<br>*Lesson 3-10 Assessment Test* | Pages 254-264 | |
| Wednesday<br>March 3, 2010<br>6:00-9:00 | Lesson 4-2 Respiratory Emergencies<br>Module 3 Test Review | Pages 265-285 | |
| Saturday<br>March 6, 2010<br>9:00-12:00 | MIDTERM Written Exam<br>MIDTERM Practical<br>Stations I and III (Practical Instructors needed) | Pages 1-285 | |
| Saturday<br>March 6, 2010<br>12:00-3:00 | Lesson 4-3 Cardiac Emergencies | Pages 286-321 | |
| Monday<br>March 15, 2010<br>6:00-9:00 | Lesson 4-3 Cardiac Emergencies 2<br>Lesson 4-5 Allergic Reactions | Pages 350-360 | |
| Wednesday<br>March 17, 2010<br>6:00-9:00 | Lesson 4-4 Diabetic Emergencies & Altered Mental Status, CVAs and Seizures | Pages 322-349 | |
| Saturday<br>March 20, 2010<br>9:00-12:00 | Lesson 4-7 Poisoning/OD<br>Lesson 4-11 Medical Emergencies<br>Practical Skills Lab | Pages 361-383 | |
| Saturday<br>March 20, 2010<br>12:00-3:00 | Lesson 4-8 Environmental Emergencies<br>Lesson 4-9 Behavioral Emergencies<br>Lesson 4-10 Abuse and Assault | Pages 384-407<br>Pages 408-42<br>Pages 422-432 | |
| Monday<br>March 22, 2010<br>6:00-9:00 | Lesson 4-11 Obstetrics/Gynecology | Pages 433-459 | |
| Wednesday<br>March 24, 2010<br>6:00-9:00 | Lesson 4-12 Medical Emergencies Practical Lab<br>Lesson 4-13 *Medical Emergencies Test (4)* | Station III | |
| Monday<br>March 29, 2010<br>6:00-9:00 | Lesson 5-1 Kinematics of Trauma Bleeding and Shock<br>Module 4 Test Review | Pages 460-477 | |
| Wednesday<br>March 31, 2010<br>6:00-9:00 | Lesson 5-2 Soft Tissue Injuries, Face, Throat, Chest, Abdominal, and Genitalia Injuries. | Pages 478-536 | |
| Monday<br>April 5, 2010<br>6:00-9:00 | Lesson 5-3 Musculoskeletal Trauma<br>Musculoskeletal Practical Skills | Pages 537-566 | |
| Wednesday<br>April 7, 2010<br>6:00-9:00 | Lesson 5-4 Head and Spine Trauma<br>****Research Paper Due** | Pages 567-602<br>Station IV | |
| Saturday<br>April 10, 2010 | Lesson 5-5 Trauma Practical Skills | Stations II and IV | |

| | | | |
|---|---|---|---|
| 9:00-12:00 | | | |
| Saturday<br>April 10, 2010<br>12:00-3:00 | Trauma Make-up Lecture<br>Lesson 5-5 Trauma Practical Stations II and IV | Pages 460-602<br>Stations II and IV | |
| Monday<br>April 12, 2010<br>6:00-9:00 | Lesson 5-6 *Trauma TEST (4)*<br>Lesson 6-1 Infants and Children<br>Lesson 6-3 Infants and Children Practical Skills Lab | Pages 603-630<br>Station II and IV | |
| Wednesday<br>April 14, 2010<br>6:00-9:00 | Lesson 6-2 Geriatric Patients<br>Practical Skills Review<br>Module 5 Test Review | Pages 746-755 | |
| Wednesday<br>April 21, 2010<br>6:00-9:00 | Lesson 6-4 *Pediatric/Geriatric TEST (5)*<br>Lesson 7-1 Ambulance Operations<br>Lesson 7-2 Gaining Access | Pages 631-648<br>Pages 649-684 | |
| Monday<br>April 26, 2010<br>6:00-9:00 | Course Review (Didactic and Practical) | | |
| Wednesday<br>April 28, 2010<br>6:00-9:00 | FINAL WRITTEN EXAM | | |
| Saturday<br>May 8, 2010<br>8:00-??? | FINAL PRACTICAL EXAM | | At Anna Maria College |

## Appendix VI: Sample EMS Continuity Book Description of Contents

**References:** This section lists the publications that the author finds useful in effectively performing their job.

**Duties and Responsibilities:** This section includes a copy of the duties and responsibilities listed in the EMS Constitution as well as any important duties not explicitly listed but still pertinent to the position.

**Essential Task List:** This section includes a listing of essential tasks to be performed by the officer.

**Common Tasks:** This is one of the key sections in the continuity book. It provides step by step instructions on how to perform common tasks for the position. This can be accomplished using with worded instructions or through pictures and flowcharts. If paperwork is required as part of the task, the author should enclose properly completed examples.

**Alert Roster:** A complete alert roster for the officer. This roster should include when it should be activated.

**Phone Roster:** This roster will provide the replacement with a quick guide to the service telephone numbers.

**Important Phone Numbers:** These are the telephone number that the officer has found particularly useful during their time in the position. These numbers most likely will be numbers outside of WPI EMS.

**Equipment Listing:** This is a list of the key equipment that the position is responsible for managing. Primarily for the Service Lt. although the other officers should have a copy of their equipment issued agreement.

**Maintenance Status of Equipment:** A snapshot of the maintenance status for each piece of equipment listed in the Equipment Listing should be included here. In addition a list of required equipment that is not in service for maintenance or required, but not owned, by the service should be listed here as well as the priority for obtaining that equipment.

**Rhythm Chart:** This chart shows the normal recurring events that the officer is required to attend, such as training meetings, officer meetings, and staff meetings. This section should also include the non-mandatory meetings a replacement should attend.

**Published Training/Activities Schedules:** This should include a schedule of upcoming near-term training events throughout a term. This is to show a replacement of the flow of activities for the service.

**Long-Range Calendar of Events:** The continuity book should include a listing of long term yearly activities that a replacement will need to attend, plan, or contribute to. This section should include items such as elections, conferences, and award sessions. The dates in this section do not need to be exact but should give a general idea of when the event must or will occur.

**Personnel Data:** A complete service roster should be in this section including; name, rank, ID number, certifications, and graduation dates.

**Lessons Learned:** This is another key section. It should include highlights about what the outgoing officer learned while carrying out their duties. It should include techniques and procedures which the officer found useful in producing optimal results.

**Ongoing Projects:** This section is key to ensuring continuous momentum in projects. This is the only section that should be empty until the officer is about to depart the position. It should summarize any ongoing operations in enough detail for their replacement to successfully carry out all remaining actions.

# Appendix VII: Ambulance Required Equipment List

**A/R 5-401**

**OFFICE OF EMERGENCY MEDICAL SERVICES**
**Administrative Requirements Manual**

Effective: 6/30/2002 Authorization: Page: 52 of 9

A/R Title: Ambulance Equipment List
Basic Life Support

Supersedes: BLS List Effective March 1, 2000

| | | |
|---|---|---|
| | | **General Principles**<br><br>**AUTHORIZED EQUIPMENT:** Ambulance services must carry equipment and medications as required by Statewide Treatment Protocols. Ambulance services should not equip ambulances with equipment that is outside of scope of practice of its EMT employees, or outside of the service's level of licensure.<br>**PERFORMANCE STANDARDS**: All equipment must be designed and constructed to meet medical performance objectives and must not endanger patients.<br>**MAINTENANCE**: All equipment and supplies must be maintained according to manufacturers' specifications with regard to maintenance, storage, expiration date, replacement, etc. |
| | | |
| Item # Name | Class | Description & Quantity |
| 1 Ambulance Cot | I, II | One 4-wheeled, multi-level ambulance cot.<br>Standard cot mattress with waterproof cover.<br>Patient restraining devices at chest (commercial shoulder harness or equal) hip, and knee to prevent lateral or longitudinal displacement of the patient during transport.<br>Dual I.V. holder, capable of being cot mounted.<br>Padded wrist and ankle restraints, minimum one complete set. |
| 2 Bag Valve Mask Ventilation Unit | All | One (1) hand-operated bag/mask ventilation unit with adult mask(s), capable of use with oxygen supplies (disposable, single use units recommended). Unit must be accessible within the patient compartment, and include, at minimum:<br>(a) One (1) each child and infant size bag/mask ventilation units with Appropriate mask(s), capable of use with oxygen supply (disposable, single use units recommended);<br>Two (2) oxygen connector tubes, minimum 84 inches long;<br>One (1) oxygen supply reservoir for each bag/mask ventilation unit. |
| 3a Portable Oxygen Unit | All | Portable positive pressure resuscitator/inhalation unit designed to operate in conjunction with external cardiac compressions and deliver nearly 100% oxygen. All components must be stored together. Unit must be equipped with: |

| Item # Item Name | class | Description and Quantity |
|---|---|---|
| 3a Cont'd | | (a) One (1) bag/valve/mask ventilation unit. The Addition of a flow restricted, oxygen powered ventilation device (demand valve) is optional;<br>(b) Oxygen cylinder with minimum capacity of 300 liters;<br>(c) Oxygen cylinder pressure gauge and regulator capable of delivering a range of zero (0) to fifteen (15) liters per minute;<br>(d) Two (2) different sizes of resuscitator face masks;<br>(e) Two (2) Each child and adult size transparent, disposable, high concentration oxygen masks with delivery tubes; |
| (Port. Oxygen Cont.) | | Two (2) adult nasal cannula with delivery tube;<br>(g) Oxygen connecting tubing;<br>(h) Cylinder wrench or wheel secured to unit;<br>(I) One (1) full spare oxygen cylinder, minimum 300 liters. All spare cylinders to be maintained in vehicle, but not part of the kit. All spare cylinders must be stored in a crash stable devices per KKK-A-1822, and any amendments thereto. |
| | | |
| 3b Installed Oxygen System | I, II | An installed oxygen system conforming to Applicable sections of the Federal Specification for Ambulances KKK-A-1822, and any amendments thereto, and equipped with the following:<br>(a) Two (2) Flowmeters capable of delivering a range of zero (0) to 15 liters per minute, at minimum;<br>(b) Unbreakable oxygen humidifier, disposable, for single use only;<br>(c) Sterile water for use with oxygen humidifier;<br>~~(d) Four (4) each adult and child size, transparent, disposable, high concentration oxygen masks with delivery tubes;~~<br>(e) Four (4) Each adult and child sizes of disposable nasal cannulae with delivery tubes; |
| | | |
| Installed Suction | I, II | [required by KKK-A-1822 s.3.12.3; but not previously itemized on equipment list] Electrically powered suction aspirator system shall be furnished with an illuminated switch, and panel mounted, to include:<br>(a) One (1) non-breakable, transparent collection bottle or bag, minimum 1,000 ml capacity;<br>~~(b) One (1) suction rinsing water bottle;~~<br>~~(c) Two (2) semi-rigid pharyngeal suction tip with thumb suction control port;~~<br>Two (2) transparent or translucent, non-kinking suction tubing min. 1/4 inch in diameter;<br>(e) Two (2) Each 5, 8, 14 French suction catheters; and ten (10) spare collection bags when bag type system is furnished. |
| 5 Portable Suction Unit | All | One (1) adjustable gas or battery powered portable suction apparatus, capable of delivering a minimum vacuum of 600 millimeters of mercury and equipped with the following:<br>(a) Wide bore, non-kinking tube; |

| | | |
|---|---|---|
| Item # Item Name | class | Description and Quantity |
| 5 Cont'd | | (b) Pharyngeal suction tip;<br>(c) Non-breakable, transparent collection bottle, minimum capacity 550 cc (disposable container recommended);<br>(d) One (1) pair disposable exam type gloves;<br>(e) One (1) combination face mask/eye shield or one (1) each facemask and protective eye wear. |
| | | |
| 6 First Aid Kits | I, II | Two (2) portable first aid kits. |
| | IV, V | One (1) portable first aid kit. |
| | | Kits may be incorporated into other kits (i.e., portable oxygen kit.) Each first aid kit to be supplied and equipped with the following equipment:<br>(a) Three (3) wrapped oropharyngeal airways, one (1) each, infant, child and adult sizes;<br>(b) Twelve (12) small dressings (sterile gauze pads, minimum size 4"x4");<br>(c) Four (4) medium dressings, sterile, minimum size 5" x 9";<br>(d) Two (2) large dressings (sterile universal dressings, minimum size 10" x 30")<br>(e) Six (6) rolls soft roller, self-adhering bandage, minimum 4" x 5 yrds;<br>(f) Four (4) cravats or triangular bandages, minimum 40" wide;<br>(g) Two (2) arterial tourniquets for control of arterial bleeding, commercial or equivalent;<br>(h) Two rolls 2" adhesive tape, minimum 5 yards;<br>(I) One (1) 7" bandage scissors or equivalent;<br>(j) One (1) adult size sphygmomanometer;<br>(k) One (1) stethoscope;<br>One (1) penlight-type flashlight;<br>(m) One (1) unbreakable container of sterile water or saline solution, minimum one pint (500 cc);<br>(n) One (1) wrapped 3 ounce bulb syringe for irrigation purposes;<br>(o) Two (2) cold packs;<br>(p) One (1) tube glucose based paste or equivalent;<br>(q) Two (2) wrapped tongue depressors for glucose administration;<br>(r) Six (6) band-aids, minimum 3/4";<br>(s) One (1) mouth-to-mouth resuscitator mask with one way valve and an oxygen port (disposable type recommended);<br>(t) Two (2) combination face mask/eye shield or two (2) each facemask and protective eye wear;<br>(u) Two (2) pair disposable exam type gloves. |
| | | |
| 7 Traction Splints | I, II | One (1) hinged Thomas-type half ring lower extremity splint or equivalent;<br>One (1) child-sized hinged Thomas-type half ring lower extremity type |

| | | with ankle hitch and leg ties or equivalent, with ankle hitch and leg ties. All accessory items to be stored with splints. |
|---|---|---|
| Item # Item Name | Class | Description and Quantity |
| 8 Padded Board Splints | All | Covered padded board splints or equivalent impervious to saturation by fluids, minimum two (2) each of the following sizes:<br>(a) 3 feet by 3 inches;<br>(b) 15" inches by 3 inches;<br>(c) 4 1/2 feet by 3 inches. |
| | | |
| 9 Spine Boards and Accessories | All | One (1) half spine board meeting AAOS standards, with three (3) torso straps and head strap (2" tape or functional equivalent), or equivalent (i.e., KED);<br>One (1) full spine board meeting AAOS standards;<br>Accessories for each full spine board carried, stored together, as follows:<br>(a) Four (4) straps of 9 foot length or functional equivalent;<br>(b) Four (4) adult rigid cervical collars of various sizes (e.g. no-neck, small, medium, and large), or one (1) adult adjustable collar, and three (3) child size rigid cervical collars of various sizes (e.g. infant, toddler, and child), or one pediatric adjustable collar, at a minimum;<br>(c) Sufficient padding material to maintain in-line head and cervical spine support and stabilization (i.e., foam blocks, rolled blankets, and/or towels). |
| | | |
| 10 Stair Chair | I, II | One (1) stair chair with patient restraint straps |
| | | |
| 11 Auxiliary Stretcher | I,II | One (1) auxiliary stretcher with patient restraint straps, or equivalent (i.e., orthopedic "scoop" stretcher, "Reeves" type stretcher, long spine board) |
| | | |
| 12 Transfer Sheet | I, II | One (1) transfer sheet with a minimum of six (6) handles, or equivalent. |
| | | |
| Airways<br><br>Revised 12/00 | I, II | Six (6) Wrapped oropharyngeal airways (2) Each infant, child, and adult [in addition to those listed in the first aid kit];<br>Eight (8) adult size nasal airways, one (1) each 20F, 22F, 24F, 26F, 28F, 30F, 32F, and 34F;<br>(c) Four pediatric nasal airways, One (1) Each 12F, 14F, 16F, 18F;<br>(d) One disposable package water soluble lubricant per nasal airway. |
| | | |
| 14 Small Dressings | I, II | Twenty four (24) sterile gauze pads, minimum 4" x 4". |
| | | |
| 15 Medium Dressings | I, II | Twelve (12) sterile, individually packaged dressings, minimum 5" x 9", or equivalent (i.e., sterile sanitary napkins) |
| | | |
| 16 Large Dressings | I, II | Six (6) sterile, individually wrapped universal dressing, Minimum 10" x 30". |

| | | |
|---|---|---|
| | | |
| **Item # Item Name** | **class** | **Description and Quantity** |
| | | |
| 17 Soft Roller Bandage | I, II | Twelve (12) rolls soft roller, self-adhering bandage, either 3" or 4" size. |
| | | |
| | | |
| 18 Triangular Bandage | I, II | Twelve (12) triangular, commercial or equivalent, of unbleached muslin, minimum 40" wide. |
| | | |
| 19 Adhesive Tape | I, II | Four (4) rolls of 1"x 5yd, one of which must be hypoallergenic. |
| 20 Bandage Shears | I, II | One (1) pair bandage shears. |
| | | |
| 21 Burn Sheets | All | Two (2) sanitary, wrapped burn sheets, linen or disposable |
| | | |
| 22 Obstetrical Kit | All | One (1) sterile commercial obstetrical kit; OR<br>One (1) sterile obstetrical kit containing the following:<br>(a) One (1) large towel;<br>(b) One (1) receiving blanket, or equivalent;<br>(c) One (1) pair sterile disposable plastic or rubber gloves;<br>(d) Six (6) sterile gauze pads, minimum 3" x 3";<br>(e) Two (2) Kelly clamps or sterile ties;<br>(f) Six (6) sanitary napkins;<br>One (1) infant bulb syringe;<br>(h) One (1) pair scissors (bandage or surgical blade);<br>One (1) container with lid for carrying placenta;<br>One (1) newborn swaddler system, i.e. space blanket, foil swadler, or equivalent to retain body temperature. |
| | | |
| 23 Poison Antidote Kit | All | One (1) poison antidote kit, containing:<br>Activated charcoal;<br>Measuring device. |
| | | |
| 24 Irrigation Fluid | I, II | Three (3) liters of sterile water or saline solution, in unbreakable containers, in a minimum of three (3) containers. |
| | | |
| 25 Aluminum Foil | I, II | One (1) roll of aluminum foil, minimum 12 inches by 25 feet, or adult size space blanket. |
| 26 Polyethylene Film | I, II | One (1) roll of polyethylene film. |
| | | |
| 27 Bed Pan | I, II, | One (1) adult bed pan. |
| | | |

| 28 Motion Sickness | I, II, IV | Two (2) motion sickness bags, or equivalent , capable of being sealed. |
|---|---|---|
| Item # Item Name | class | Description and Quantity |
| | | |
| 29 Pillows | I, II<br>IV, V | Two (2) pillows with waterproof plastic covers, and four (4) pillow cases.<br>One (1) pillow with waterproof plastic cover, and two (2) pillow cases. |
| | | |
| 30 Sheets | I, II<br>IV, V | Eight (8) sheets, disposable or linen;<br>Two (2) sheets, disposable or linen. |
| | | |
| | | |
| 31 Blankets | I, II<br>IV, V | Four (4) blankets.<br>Two (2) blankets. |
| | | |
| 32 Towels | I, II | Four (4) towels. |
| | | |
| 33 Tissues | I, II | Two (2) packages of disposable paper tissues. |
| | | |
| 34 Drinking Cups | All | Two (2) or more disposable drinking cups. |
| | | |
| 35 Cold Packs | I, II | Four (4) cold packs |
| 36 Glucose | I,II | Two (2) glucose based paste or equivalent, and wrapped tongue depressors for glucose administration**.** (*other than what is in first aid kits.)* |
| | | |
| 37 Infection Control Kit | All | One (1) infection control kit, containing two (2) each of disposable, fluid resistant gowns, masks, caps, protective eye wear, and two (2) different sizes of gloves. |
| | | |
| 38 Ring Cutter | I, II, | One (1) ring cutter. |
| | | |
| 39 Adult Sphygmomanometer | I | One (1) adult, sphygmomanometer. |
| | | |
| 40 Large Adult | All | One (1) large adult, or thigh size sphygmomanometer. |
| | | |

| 41Child Size Sphygmomanome | I, II, V | One (1) child size sphygmomanometer. |
|---|---|---|
| Item # Item Name | class | Description and Quantity |
| 42 Infant Sphygmomanomet | All | One (1) infant size sphygmomanometer. |
| **43 Stethoscope** | | One (1) stethoscope to be a component of patient compartment stocks. (other than what is in first aid kits.) |
| | | |
| 44 Plastic Bags | I, II | Two (2) large plastic bags with ties. |
| | | |
| 45 Contaminated Trash Container | All | Two (2) disposable "Bio-Hazard" bags, with ties. |
| | | |
| 47 Eye Shields | I, II | Two combination face mask/eye shield or two (2) each face mask and protective eye wear. |
| | | |
| 48 Gloves | I, II | Six (6) pairs of disposable exam type gloves in three (3) different sizes. |
| | | |
| 49 Hand Cleaner | I, II, V | One (1) dispenser antiseptic hand cleaner, or 25 individually wrapped antiseptic hand wipes. |
| | | |
| 50 Latex-free equipment | ***ALL*** | ***One (1) commercial latex-free kit; OR*** <br> ***one (1) labeled latex-free kit containing the following:*** <br> (a) latex-free examination gloves, two (2) pairs each, small, medium and large; <br> (b) latex-free tourniquet; <br> (c) latex-free adult BVM and masks; <br> (d) latex free high concentration, disposable, oxygen masks with delivery tubes, two (2) each, adult and child; <br> (e) latex-free nasal cannulae and delivery tubes, two (2) each, adult and child; <br> (f) latex-free B/P cuff; and <br> (g) latex-free stethoscope. |
| | | |
| 51 CPR Board | ***I,II*** | CPR board or functionally equivalent (i.e., short board) hard surface for patient torso accessible to patient compartment. |
| | | |
| **52 Automatic** Defibrillator | ***I,II, V*** | One Automatic external cardiac defibrillator (AED) appropriate to ambulance staffing configuration, with appropriate accessories. Effective date: March 1, 2002 |
| | | |
| 53 Epi-Pens | ***ALL*** | **Two (2) each, child and adult Epi-Pens.** <br> **Effective June 30, 2002** |
| | | |
| 54 Aspirin | ***ALL*** | **30 tablets of chewable pediatric-strength (81 mg/tablet) aspirin, or 30** |

| | | **tablets of adult-strength (162-325 mg/tablet) aspirin. Effective June 30, 2002** |
|---|---|---|

## EQUIPMENT TO GAIN ACCESS

| Item # Item name | class | Description and Quantity |
|---|---|---|
| | | |
| 1 Equipment to Gain Access | I,II | (a) One (1) screwdriver, minimum 8" regular blade<br>(b) One (1) hacksaw with six (6) wire (carbide) blades<br>(c) One (1) pair of pliers, 10" vice grip<br>(d) One (1) short handled sledge hammer, minimum 3 pounds<br>(e) One (1) rope, synthetic, minimum 50 feet by 1/2 inch diameter or functional equivalent<br>(f) Two (2) pairs of gloves (leather gauntlets)<br>(g) Two (2) pairs of goggles (clear eye protective) |

## VEHICLE EQUIPMENT

| Item # Item name | Class | Description and Quantity |
|---|---|---|
| | | |
| 1 Warning Lights | V | Emergency warning beacon, visible 360 degrees, as permitted by M.G.L. c.90, s.7, or as required under KKK-A-1822 and any amendments thereto. |
| | | |
| 2 Audible Warning Devices | V | A siren, audible 500 feet to the front. |
| | | |
| 3 Maps | I, II, V | Street directories and road maps for primary and backup areas served. |
| | | |
| 4 Fire Extinguishers | I, II | Two (2) adequately charged fire extinguishers, five (5) pound C02 or dry powder, Underwriter's Laboratory approved, one of which shall be mounted in the patient compartment. |
| | V | One (1) adequately charged fire extinguisher, five (5) pound C02 or dry powder, Underwriter's Laboratory approved. |
| | | |
| 5 Handlights | I, II, V | Two (2) 6-volt handlights, bulb type, or two bulb type handlights with rechargeable battery of 4.5 volts minimum. |
| | | |
| 6 Chock Blocks | I, II | Two (2) vehicle chock block. |
| | | |
| 7 Road reflectors | I, II, V | Six (6) DOT approved triangular reflectors, or equivalent. |

| | | |
|---|---|---|
| 8 Hazardous Material Guidebooks | I, II, V | • One (1) U.S. Department of Transportation Emergency Response Guidebook, current edition;<br>• One (1) National Institute of Occupational Health and Safety (NIOSH) Pocket Guide to Chemical Hazards, current edition. |
| | | |
| 9 Binoculars | I, II, V | One (1) pair of binoculars minimum 7x35 mm. |
| | | |
| 10 Triage Tags | I, II, V | Twenty five (25) triage tags. |
| | | |
| 11 Protective Equipment | I, II, V | Personal protective equipment adequate to safeguard crew from anticipated exposures as defined by the licensee. |
| | | |
| 12 Reflective Garment | All | One (1) set reflective vest or reflective garment, or equivalent, per crew member. |
| | | |
| 13 Protective Masks | all | Two (2) respirators, conforming to OSHA Bloodborne Pathogens Standard 29 CFR 1910.1030 (HEPA ). |

# Appendix VIII: Modified Equipment List

**OFFICE OF EMERGENCY MEDICAL SERVICES**
**Administrative Requirements Manual**

Effective: 6/30/2002 Authorization: 

A/R Title: Ambulance Equipment List
Basic Life Support

Supersedes: BLS List Effective March 1, 2000

***General Principles***

A. **AUTHORIZED EQUIPMENT:** Ambulance services must carry equipment and medications as required by Statewide Treatment Protocols. Ambulance services should not equip ambulances with equipment that is outside of scope of practice of its EMT employees, or outside of the service's level of licensure.

B. **PERFORMANCE STANDARDS**: All equipment must be designed and constructed to meet medical performance objectives and must not endanger patients.

C. **MAINTENANCE**: All equipment and supplies must be maintained according to manufacturers' specifications with regard to maintenance, storage, expiration date, replacement, etc.

| Item # Name | Class | Description & Quantity |
|---|---|---|
| 1 Bag Valve Mask Ventilation Unit | All | One (1) hand-operated bag/mask ventilation unit with adult mask(s), capable of use with oxygen supplies (disposable, single use units recommended). Unit must be accessible within the patient compartment, and include, at minimum:<br>(a) One (1) each child and infant size bag/mask ventilation units with Appropriate mask(s), capable of use with oxygen supply (disposable, single use units recommended);<br>Two (2) oxygen connector tubes, minimum 84 inches long;<br>One (1) oxygen supply reservoir for each bag/mask ventilation unit. |
| | | |
| 2a Portable Oxygen Unit | All | Portable positive pressure resuscitator/inhalation unit designed to operate in conjunction with external cardiac compressions and deliver nearly 100% oxygen. All components must be stored together. Unit must be equipped with: |
| 2a Cont'd | | (a) One (1) bag/valve/mask ventilation unit. The Addition of a flow restricted, oxygen powered ventilation device (demand valve) is optional;<br>(b) Oxygen cylinder with minimum capacity of 300 liters;<br>(c) Oxygen cylinder pressure gauge and regulator capable of delivering a range of zero (0) to fifteen (15) liters per minute;<br>(d) Two (2) different sizes of resuscitator face masks; |

| | | |
|---|---|---|
| | | (e) Two (2) Each child and adult size transparent, disposable, high concentration oxygen masks with delivery tubes; |
| (Port. Oxygen Cont.) | | Two (2) adult nasal cannula with delivery tube;<br>(g) Oxygen connecting tubing;<br>(h) Cylinder wrench or wheel secured to unit;<br>(I) One (1) full spare oxygen cylinder, minimum 300 liters. All spare cylinders to be maintained in vehicle, but not part of the kit. All spare cylinders must be stored in a crash stable devices per KKK-A-1822, and any amendments thereto. |
| | | |
| 3 Portable Suction Unit | All | One (1) adjustable gas or battery powered portable suction apparatus, capable of delivering a minimum vacuum of 600 millimeters of mercury and equipped with the following:<br>(a) Wide bore, non-kinking tube; |
| 3 Cont'd | | (b) Pharyngeal suction tip;<br>(c) Non-breakable, transparent collection bottle, minimum capacity 550 cc (disposable container recommended);<br>(d) One (1) pair disposable exam type gloves;<br>(e) One (1) combination face mask/eye shield or one (1) each facemask and protective eye wear. |
| | | |
| 4 First Aid Kits | I, II | Two (2) portable first aid kits. |
| | IV, V | One (1) portable first aid kit. |
| | | Kits may be incorporated into other kits (i.e., portable oxygen kit.) Each first aid kit to be supplied and equipped with the following equipment:<br>(a) Three (3) wrapped oropharyngeal airways, one (1) each, infant, child and adult sizes;<br>(b) Twelve (12) small dressings (sterile gauze pads, minimum size 4"x4");<br>(c) Four (4) medium dressings, sterile, minimum size 5" x 9";<br>(d) Two (2) large dressings (sterile universal dressings, minimum size 10" x 30")<br>(e) Six (6) rolls soft roller, self-adhering bandage, minimum 4" x 5 yrds;<br>(f) Four (4) cravats or triangular bandages, minimum 40" wide;<br>(g) Two (2) arterial tourniquets for control of arterial bleeding, commercial or equivalent;<br>(h) Two rolls 2" adhesive tape, minimum 5 yards;<br>(I) One (1) 7" bandage scissors or equivalent;<br>(j) One (1) adult size sphygmomanometer;<br>(k) One (1) stethoscope;<br>One (1) penlight-type flashlight;<br>(m) One (1) unbreakable container of sterile water or saline solution, minimum one pint (500 cc);<br>(n) One (1) wrapped 3 ounce bulb syringe for irrigation purposes;<br>(o) Two (2) cold packs;<br>(p) One (1) tube glucose based paste or equivalent;<br>(q) Two (2) wrapped tongue depressors for glucose administration;<br>(r) Six (6) band-aids, minimum 3/4";<br>(s) One (1) mouth-to-mouth resuscitator mask with one way valve and an oxygen port (disposable type recommended);<br>(t) Two (2) combination face mask/eye shield or two (2) each facemask and protective eye wear;<br>(u) Two (2) pair disposable exam type gloves. |

| | | |
|---|---|---|
| | | |
| 5 Padded Board Splints | All | Covered padded board splints or equivalent impervious to saturation by fluids, minimum two (2) each of the following sizes:<br>(a) 3 feet by 3 inches;<br>(b) 15" inches by 3 inches;<br>(c) 4 1/2 feet by 3 inches. |
| | | |
| 6 Spine Boards and Accessories | All | One (1) half spine board meeting AAOS standards, with three (3) torso straps and head strap (2" tape or functional equivalent), or equivalent (i.e., KED);<br>One (1) full spine board meeting AAOS standards;<br>Accessories for each full spine board carried, stored together, as follows:<br>(a) Four (4) straps of 9 foot length or functional equivalent;<br>(b) Four (4) adult rigid cervical collars of various sizes (e.g. no-neck, small, medium, and large), or one (1) adult adjustable collar, and three (3) child size rigid cervical collars of various sizes (e.g. infant, toddler, and child), or one pediatric adjustable collar, at a minimum;<br>(c) Sufficient padding material to maintain in-line head and cervical spine support and stabilization (i.e., foam blocks, rolled blankets, and/or towels). |
| | | |
| 7 Auxiliary Stretcher | I,II | One (1) auxiliary stretcher with patient restraint straps, or equivalent (i.e., orthopedic "scoop" stretcher, "Reeves" type stretcher, long spine board) |
| | | |
| 8 Transfer Sheet | I, II | One (1) transfer sheet with a minimum of six (6) handles, or equivalent. |
| | | |
| 9 Airways<br><br>Revised 12/00 | I, II | Six (6) Wrapped oropharyngeal airways (2) Each infant, child, and adult [in addition to those listed in the first aid kit];<br>(a) Eight (8) adult size nasal airways, one (1) each 20F, 22F, 24F, 26F, 28F, 30F, 32F, and 34F;<br>(c) Four pediatric nasal airways, One (1) Each 12F, 14F, 16F, 18F;<br>(d) One disposable package water soluble lubricant per nasal airway. |
| | | |
| 10 Small Dressings | I, II | Twenty four (24) sterile gauze pads, minimum 4" x 4". |
| | | |
| 11 Medium Dressings | I, II | Twelve (12) sterile, individually packaged dressings, minimum 5" x 9", or equivalent (i.e., sterile sanitary napkins) |
| | | |
| 12 Large Dressings | I, II | Six (6) sterile, individually wrapped universal dressing, Minimum 10" x 30". |
| | | |
| 13 Soft Roller Bandage | I, II | Twelve (12) rolls soft roller, self-adhering bandage, either 3" or 4" size. |
| | | |
| 14 Triangular Bandage | I, II | Twelve (12) triangular, commercial or equivalent, of unbleached muslin, minimum 40" wide. |
| | | |
| 15 Adhesive Tape | I, II | Four (4) rolls of 1”x 5yd, one of which must be hypoallergenic. |

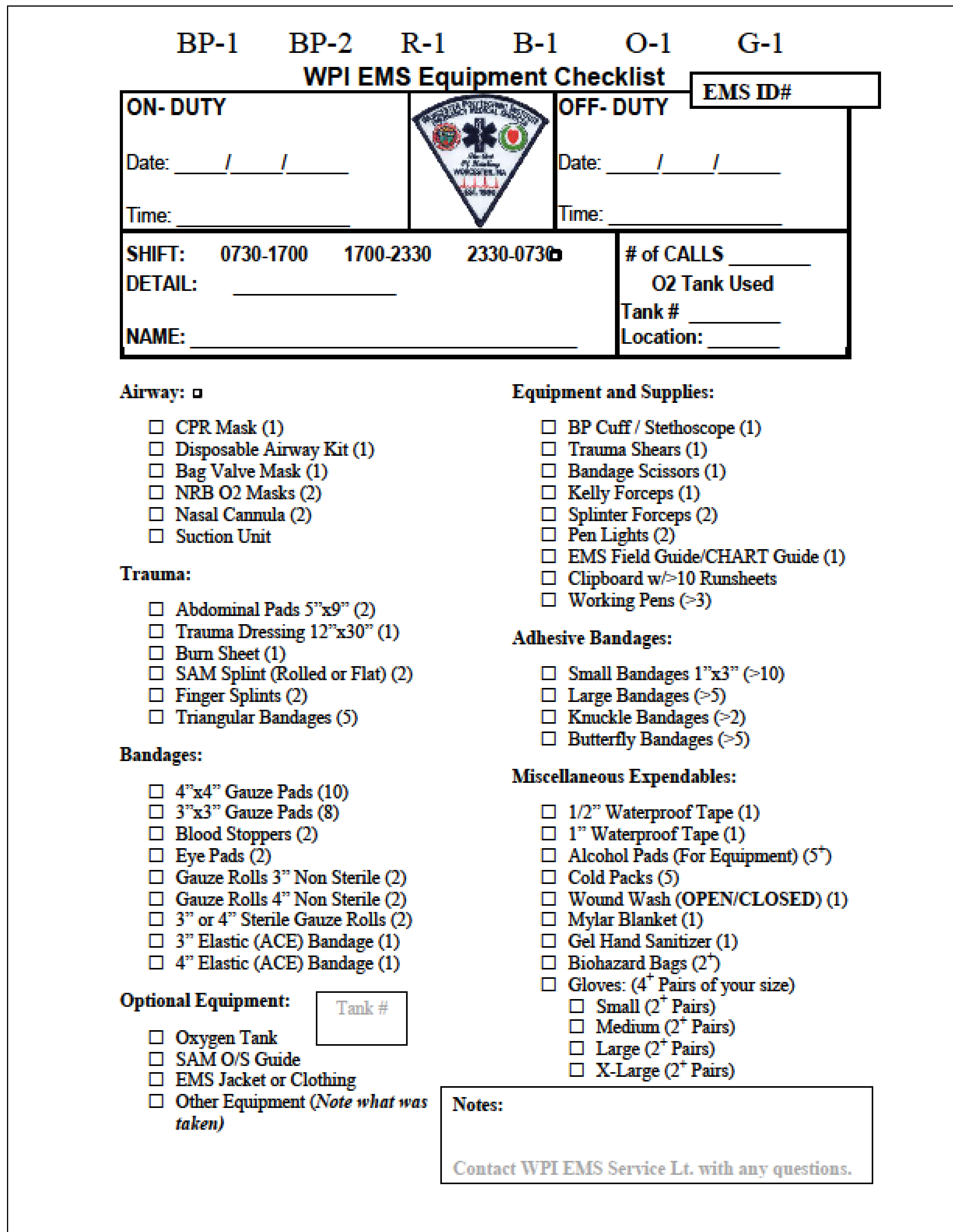
| | | |
|---|---|---|
| 16 Bandage Shears | I, II | One (1) pair bandage shears. |
| | | |
| 17 Burn Sheets | All | Two (2) sanitary, wrapped burn sheets, linen or disposable |
| | | |
| 18 Obstetrical Kit | All | One (1) sterile commercial obstetrical kit; OR<br>One (1) sterile obstetrical kit containing the following:<br>(a) One (1) large towel;<br>(b) One (1) receiving blanket, or equivalent;<br>(c) One (1) pair sterile disposable plastic or rubber gloves;<br>(d) Six (6) sterile gauze pads, minimum 3" x 3";<br>(e) Two (2) Kelly clamps or sterile ties;<br>(f) Six (6) sanitary napkins;<br>(f) One (1) infant bulb syringe;<br>(h) One (1) pair scissors (bandage or surgical blade);<br>(g) One (1) container with lid for carrying placenta;<br>(h) One (1) newborn swaddler system, i.e. space blanket, foil swadler, or equivalent to retain body temperature. |
| | | |
| 19 Irrigation Fluid | I, II | Three (3) liters of sterile water or saline solution, in unbreakable containers, in a minimum of three (3) containers. |
| | | |
| 20 Aluminum Foil | I, II | One (1) roll of aluminum foil, minimum 12 inches by 25 feet, or adult size space blanket. |
| 21 Polyethylene Film | I, II | One (1) roll of polyethylene film. |
| | | |
| 22 Bed Pan | I, II, | One (1) adult bed pan. |
| | | |
| 23 Motion Sickness Bags | I, II, IV | Two (2) motion sickness bags, or equivalent , capable of being sealed. |
| | | |
| 24 Tissues | I, II | Two (2) packages of disposable paper tissues. |
| 25 Cold Packs | I, II | Four (4) cold packs |
| | | |
| 26 Infection Control Kit | All | One (1) infection control kit, containing two (2) each of disposable, fluid resistant gowns, masks, caps, protective eye wear, and two (2) different sizes of gloves. |
| | | |
| 27 Ring Cutter | I, II, | One (1) ring cutter. |
| | | |
| 28 Adult Sphygmomanometer | I | One (1) adult, sphygmomanometer. |
| | | |

| | | |
|---|---|---|
| 29 Large Adult Sphygmomanometer | All | One (1) large adult, or thigh size sphygmomanometer. |
| | | |
| 30 Child Size Sphygmomanometer | I, II, V | One (1) child size sphygmomanometer. |
| | | |
| 31 Infant Sphygmomanometer | All | One (1) infant size sphygmomanometer. |
| | | |
| 32 Stethoscope | | One (1) stethoscope to be a component of patient compartment stocks. (other than what is in first aid kits.) |
| | | |
| 33 Plastic Bags | I, II | Two (2) large plastic bags with ties. |
| | | |
| 34 Contaminated Trash Container | All | Two (2) disposable "Bio-Hazard" bags, with ties. |
| | | |
| 35 Eye Shields | I, II | Two combination face mask/eye shield or two (2) each face mask and protective eye wear. |
| | | |
| 36 Gloves | I, II | Six (6) pairs of disposable exam type gloves in three (3) different sizes. |
| | | |
| 37 Hand Cleaner | I, II, V | One (1) dispenser antiseptic hand cleaner, or 25 individually wrapped antiseptic hand wipes. |
| | | |
| 38 Latex-free equipment | ALL | ***One (1) commercial latex-free kit; OR*** <br> ***one (1) labeled latex-free kit containing the following:*** <br> (a) latex-free examination gloves, two (2) pairs each, small, medium and large; <br> (b) latex-free tourniquet; <br> (c) latex-free adult BVM and masks; <br> (d) latex free high concentration, disposable, oxygen masks with delivery tubes, two (2) each, adult and child; <br> (e) latex-free nasal cannulae and delivery tubes, two (2) each, adult and child; <br> (f) latex-free B/P cuff; and <br> (g) latex-free stethoscope. |
| | | |
| 39 CPR Board | *I,II* | CPR board or functionally equivalent (i.e., short board) hard surface for patient torso accessible to patient compartment. |
| | | |
| 40 Automatic Defibrillator | *I,II,V* | One Automatic external cardiac defibrillator (AED) appropriate to ambulance staffing configuration, with appropriate accessories. Effective date: March 1, 2002 |
| 41* Triage Tags | I, II, V | Twenty five (25) triage tags. |
| | | |
| 42* Protective Equipment | I, II, V | Personal protective equipment adequate to safeguard crew from anticipated exposures as defined by the licensee. |
| | | |

| 43* Reflective Garment | *All* | One (1) set reflective vest or reflective garment, or equivalent, per crew member. |
|---|---|---|
| | | |
| 44* Protective Masks | *A*ll | Two (2) respirators, conforming to OSHA Blood borne Pathogens Standard 29 CFR 1910.1030 (HEPA ). |

*These numbers were taken from a section listed as vehicle equipment. WPI EMS does not operate a vehicle; however, each of these items is still essential EMS equipment.

## Appendix IX: WPI EMS First In Bag Checklist



BP-1 BP-2 R-1 B-1 O-1 G-1

**WPI EMS Equipment Checklist**

**EMS ID#**

| ON- DUTY | | OFF- DUTY |
|---|---|---|
| Date: ____/____/_____ | | Date: ____/____/_____ |
| Time: ______________ | | Time: ______________ |

**SHIFT:** 0730-1700 1700-2330 2330-0730

**DETAIL:** ______________

**NAME:** ________________________________

**# of CALLS** _______

**O2 Tank Used**

**Tank #** ________

**Location:** _______

**Airway:**

- ☐ CPR Mask (1)
- ☐ Disposable Airway Kit (1)
- ☐ Bag Valve Mask (1)
- ☐ NRB O2 Masks (2)
- ☐ Nasal Cannula (2)
- ☐ Suction Unit

**Trauma:**

- ☐ Abdominal Pads 5"x9" (2)
- ☐ Trauma Dressing 12"x30" (1)
- ☐ Burn Sheet (1)
- ☐ SAM Splint (Rolled or Flat) (2)
- ☐ Finger Splints (2)
- ☐ Triangular Bandages (5)

**Bandages:**

- ☐ 4"x4" Gauze Pads (10)
- ☐ 3"x3" Gauze Pads (8)
- ☐ Blood Stoppers (2)
- ☐ Eye Pads (2)
- ☐ Gauze Rolls 3" Non Sterile (2)
- ☐ Gauze Rolls 4" Non Sterile (2)
- ☐ 3" or 4" Sterile Gauze Rolls (2)
- ☐ 3" Elastic (ACE) Bandage (1)
- ☐ 4" Elastic (ACE) Bandage (1)

**Optional Equipment:** Tank #

- ☐ Oxygen Tank
- ☐ SAM O/S Guide
- ☐ EMS Jacket or Clothing
- ☐ Other Equipment (*Note what was taken)*

**Equipment and Supplies:**

- ☐ BP Cuff / Stethoscope (1)
- ☐ Trauma Shears (1)
- ☐ Bandage Scissors (1)
- ☐ Kelly Forceps (1)
- ☐ Splinter Forceps (2)
- ☐ Pen Lights (2)
- ☐ EMS Field Guide/CHART Guide (1)
- ☐ Clipboard w/>10 Runsheets
- ☐ Working Pens (>3)

**Adhesive Bandages:**

- ☐ Small Bandages 1"x3" (>10)
- ☐ Large Bandages (>5)
- ☐ Knuckle Bandages (>2)
- ☐ Butterfly Bandages (>5)

**Miscellaneous Expendables:**

- ☐ 1/2" Waterproof Tape (1)
- ☐ 1" Waterproof Tape (1)
- ☐ Alcohol Pads (For Equipment) (5+)
- ☐ Cold Packs (5)
- ☐ Wound Wash (OPEN/CLOSED) (1)
- ☐ Mylar Blanket (1)
- ☐ Gel Hand Sanitizer (1)
- ☐ Biohazard Bags (2+)
- ☐ Gloves: (4+ Pairs of your size)
  - ☐ Small (2+ Pairs)
  - ☐ Medium (2+ Pairs)
  - ☐ Large (2+ Pairs)
  - ☐ X-Large (2+ Pairs)

**Notes:**

Contact WPI EMS Service Lt. with any questions.

# Appendix X: Gap Closure Cost List

| Account | Item | Cost/ea | Quantity | Total | Life |
|---|---|---|---|---|---|
| **7111** | Bag Valve Mask-Infant | $ 15.39 | 10 | $ 153.90 | 6 |
| | Bag Valve Mask-Child | $ 15.19 | 10 | $ 151.90 | 6 |
| | Oxygen Masks-Pedi | $ 1.68 | 20 | $ 33.60 | 6 |
| | Suction Unit | $ 790.00 | 2 | $ 1,580.00 | 5 |
| | Suction unit-Spare Parts | $ 10.00 | 6 | $ 60.00 | 5 |
| | Padded board splints-Kit | $ 72.89 | 4 | $ 291.56 | 8 |
| | Cervical Collar-Pedi | $ 8.29 | 5 | $ 41.45 | 8 |
| | Long Spine Boards | $ 129.00 | 4 | $ 516.00 | 8 |
| | Straps | $ 17.69 | 16 | $ 283.04 | 8 |
| | Headblocks | $ 65.89 | 4 | $ 263.56 | 8 |
| | Kendrick Extraction Device | $ 152.00 | 3 | $ 456.00 | 8 |
| | Obstetrics Kit | $ 10.50 | 10 | $ 105.00 | 4 |
| | Epi-Pen Adult Dose | $ 95.49 | 3 | $ 286.47 | 1 |
| | Epi-Pen Child Dose | $ 95.49 | 2 | $ 190.98 | 1 |
| | Blood Pressure Cuff-Child | $ 34.19 | 3 | $ 102.57 | 8 |
| | Blood Pressure Cuff-Infant | $ 32.39 | 2 | $ 64.78 | 8 |
| | Charcoal | $ 27.89 | 5 | $ 139.45 | 2 |
| | Aspirin Tablets | $ 1.59 | 5 | $ 7.95 | 2 |
| | Oral Glucose | $ 18.99 | 5 | $ 94.95 | 2 |
| | AED | $ 1,595.00 | 2 | $ 3,190.00 | 5 |
| | Epi-Pen Trainers | 7.79 | 4 | $ 31.16 | 10 |
| **7111** | **TOTAL** | | | **$ 8,044.32** | |
| | | | | | |
| **Vehicle** | | | | | |
| | Vehicle | | | $ 35,585.00 | 15 |
| | Modifications | | | $ 11,500.00 | 15 |
| **Vehicle** | **TOTAL** | | | **$ 47,085.00** | |
| | | | | | |
| **TOTAL** | **GRAND TOTAL** | | | **$ 55,129.32** | |

# Appendix XI: Proposed Annual Budget

| Account | Activity | | New | Old | % Increase |
|---|---|---|---|---|---|
| **7111** | | Supplies | $ 4,000.00 | $ 3,152.00 | 27% |
| **7118** | | Uniforms | $ 1,375.00 | $ 1,009.00 | 36% |
| **7152** | | Printing | $ 300.00 | $ 103.00 | 191% |
| **7633** | | Professional Development | $ 1,600.00 | $ 1,007.00 | 59% |
| **7633** | EMT | EMT Class | $ 9,000.00 | $ - | |
| **7649** | | Other (Details) | $ - | $ - | |
| | | Operations | $ 8,000.00 | $ - | |
| | | **Total (all accounts)** | **$ 24,275.00** | | |

# Appendix XII: Pictures of the Current Space

Figure 1: Riley Bunkroom Depth.

Figure 2: Riley Bunkroom Width.

**Figure 3: Founders Storage/Office Profile Picture**

**Figure 4: Founders Storage/Office Work Space**

## Appendix XIII: 105 CMR 170.00-172.00

Disclaimer***: Please be advised that the following does not constitute the official version of these regulations. As is the case with all state regulations, official versions are available from the Secretary of State's State Publications and Regulations Division, through the State Bookstore. For the official version, contact the State Bookstore in Boston at (617) 727-2834 or in Springfield at (413) 784-1376, or visit*** http://www.sec.state.ma.us/spr/sprcat/catidx.htm

105 CMR 170.000: Emergency Medical Services System

170.001: Purpose

105 CMR 170.000 is issued for the purpose of establishing a statewide, community-based EMS system, in order to reduce death and disability from illness and injury through the coordination of local and regional emergency medical services resources. It is designed to ensure that properly trained and certified EMS personnel, operating under medical oversight, provide emergency medical care to patients at the scene of their illness or injury, and during transport to appropriate health care facilities. It establishes standards for EMS vehicles and equipment, and standards to ensure safe, adequate transport to an appropriate health care facility in the shortest practicable time. 105 CMR 170.000 also provides for scheduled, routine transport of non- emergent patients to appropriate destinations.

170.002: Authority

105 CMR 170.000 is adopted under the authority of M.G.L. c. 111C and M.G.L. c. 30A, §2.

170.003: Citation

105 CMR 170.000 shall be known and may be cited as 105 CMR 170.000: *Emergency Medical Services System.*

170.010: Scope

105 CMR 170.000 governs the EMS system, as defined in St. 2000, c. 54, §1, M.G.L. c. 111C and 105 CMR 170.020.

170.020: Definitions

The definitions set forth in 105 CMR 170.020 shall apply for the purpose of 105 CMR 170.000, unless the context or subject matter clearly requires a different interpretation.

Accreditation means the process by which a certificate is issued by the Department pursuant to 105 CMR 170.946 through 170.950 indicating that the holder has met the requirements for providing Department-approved training for EMTs and EMT-candidates.

Administrative Requirements (A/R) means requirements issued by the Department's Office of Emergency Medical Services to interpret, clarify and further define the application of certain provisions of 105 CMR 170.000.

Advanced Life Support (ALS) means the pre-hospital use of medical techniques and skills defined by the Statewide Treatment Protocols by EMTs certified pursuant to 105 CMR 170.000.

Ambulance means any aircraft, boat, motor vehicle, or any other means of transportation, however named, whether privately or publicly owned, which is intended to be used for, and is maintained and operated for, the response to and the transportation of sick or injured individuals.

Ambulance Service means the business or regular activity, whether for profit or not, of providing

emergency medical services, emergency response, primary ambulance response, pre-hospital emergency care, with or without transportation, to sick or injured individuals by ambulance.

Appropriate Health Care Facility means an emergency department, either physically located within an acute care hospital licensed by the Department pursuant to 105 CMR 130.000 to provide emergency services, or in a satellite emergency facility approved by the Department pursuant to 105 CMR 130.821, that is closest geographically or conforms to a Department-approved point-of-entry plan.

Authorization to Practice means approval granted to an EMT-Intermediate or EMT-Paramedic by his or her employing EMS service's affiliate hospital medical director, which enables that EMT to work as an EMT at the ALS level and receive medical control pursuant to the employing service's affiliation agreement and in conformance with the Statewide Treatment Protocols.

Basic Life Support (BLS) means the pre-hospital use of techniques and skills defined by the Statewide Treatment Protocols by EMTs certified pursuant to 105 CMR 170.000.

CMED means the medical communications subsystem within the statewide EMS communications system.

Certificate of Inspection means the formal acknowledgment, issued pursuant to 105 CMR 170.415, that the EMS vehicle meets the standards applicable to its type or class of vehicle.

Certification of EMTs means a process by which a certificate is issued by the Department indicating that the holder has met the requirements for an EMT at a specified level of training established by the Department.

Chief Examiner means a person appointed by the Department who is responsible for the organization and operation of a Department-approved EMT examination at a specific site.

Commission on Accreditation of Medical Transport Systems (CAMTS) means the national accrediting organization for air medical and ground transport systems providing critical care services.

Commissioner means the Commissioner of Public Health.

Company means a corporation, a partnership, a business trust, an association, or an organized

group of persons, whether incorporated or not; or any receiver, trustee, or other liquidating agent of any of the foregoing while acting in such capacity.

<u>Critical Care Services</u> means the provision by an ambulance service of prehospital or interfacility patient care, stabilization, and transport services to critically ill and injured patients, using medical techniques, pharmacology, and technological life support systems that exceed those in the Statewide Treatment Protocols, including the ALS Interfacility Transfer Protocol, and as set out by the ambulance service and approved by the Department.

Continuing Education means instructional courses for certified EMS personnel to meet training requirements for maintenance of certification.

Department means the Department of Public Health.

Diversion Status System shall mean a web-based application established by the Department to allow hospitals, CMED centers and ambulance services access to real-time information regarding the diversion status of all appropriate health care facilities in Massachusetts licensed to provide emergency services.

Emergency means a condition or situation in which an individual has a need for immediate medical attention, or where the potential for such need is perceived by the individual, a bystander or an emergency medical services provider.

Emergency Medical Services (EMS) means the pre-hospital assessment, treatment and other services utilized in responding to an emergency or provided during the emergency or inter- facility transport of patients to appropriate health care facilities.

EMS First Responder (EFR) means a person certified pursuant to 105 CMR 170.000 who has, at a minimum, successfully completed a course in emergency medical care approved by the Department pursuant to M.G.L. c. 111, §201 and 105 CMR 171.000 and who provides emergency medical care through employment by or in association with a licensed EFR service.

EMS First Response means the dispatch and response by the closest, most appropriate EMS personnel or EMS vehicle in the shortest practicable amount by time of a qualified EMS first response service.

EMS First Response Service (EFR Service) means the business or regular activity, whether for profit or not, by a licensed EMS provider, designated as a service zone provider pursuant to a Department-approved service zone plan for the purpose of providing rapid response and EMS.

EMS First Response Vehicle (EFR Vehicle) means any aircraft, boat, motor vehicle or any other means of transportation, whether privately or publicly owned, that is intended and is maintained and operated for the rapid response of EMS personnel, equipment and supplies to emergencies by an EFR service or by an ambulance service and is not utilized for patient transport.

EMS Personnel means EFRs and EMTs.

EMS Plan means a plan that includes an inventory and assessment of EMS resources and a plan for optimal maintenance, coordination and utilization of those resources:
(1) to improve the EMS system and its component elements; and
(2) to coordinate with all state and municipal public safety agencies' mass casualty and other public emergency plans.

EMS Provider means the following:
(1) an EFR service, an ambulance service, or a hospital or facility approved by the Department

to provide EMS, including, without limitation, a trauma center, or
(2) any individual associated with an EFR service, an ambulance service, or a hospital or facility approved by the Department to provide EMS, who is engaged in providing EMS. Such individuals include, without limitation, an EMT, an EFR, a medical communications system operator and a medical control physician, to the extent such physician provides EMS.

EMS System means all the EMS providers and equipment; communications systems linking them to each other; training and education programs; the Regional EMS Councils and all of their operations; EMS plans, protocols, statutes, regulations, administrative requirements and guidelines; and all other components of such system, and their interaction with each other and with patients, providing equally for all patients quality care, operating under the leadership and direction of the Department.

EMS Vehicle means an ambulance or an EMS first response vehicle.

Emergency Medical Technician (EMT) means a person who has successfully completed a full course in emergency medical care approved by the Department and who is certified by the Department in accordance with 105 CMR 170.000 to provide emergency medical services to sick or injured persons in accordance with the Statewide Treatment Protocols. The term EMT shall include EMT-Basic, EMT-Intermediate and EMT-Paramedic.

Emergency Response means the dispatch and response of the closest appropriate ambulance, EMS personnel and other EMS vehicle to an emergency in the shortest practicable amount of time in conformance with the service zone plan.

First Responder means a member of any of the following entities: a police or fire department; state police participating in highway patrol; an emergency reserve unit of a volunteer fire department or fire protection district, and any persons appointed permanent or temporary lifeguards by the Commonwealth or any of its political subdivisions. A first responder shall not mean a police officer, firefighter or person engaged in police and fire work whose duties are primarily clerical or administrative. First responders are required to successfully complete, at a minimum, the course of emergency medical care that meets the standards of M.G.L. c. 111, §201 and 105 CMR 171.000.

First Responder Agency means a police department, a fire department, the state police participating in highway patrol, an emergency reserve unit of a volunteer fire department or fire protection district, or the Commonwealth or any of its political subdivisions that appoints

permanent or temporary lifeguards. A first responder agency shall not mean a service that is a licensed EFR service.

Headquarters means the principal place of business of an EMS provider.

Hospital means a hospital that is licensed or certified by the Department pursuant to M.G.L. c. 111, §51 or other applicable law, with an emergency department, and the teaching hospital of the University of Massachusetts Medical School.



Immediate Dispatch means dispatching, or toning out or calling for an ambulance, to be sent out, without any delay, when a call to respond to an emergency is received. Immediate dispatch includes the toning out for on-call or volunteer personnel to respond to and staff an ambulance.

Initial Training means an educational program that meets or exceeds the current U.S. Department of Transportation's EMT-Basic or EMT-Paramedic National Standard Curriculum, as applicable, or the 1985 U.S. Department of Transportation's EMT-Intermediate National Standard Curriculum, and any additional standards established by the Department, and consists of didactic, clinical and field training, to prepare students to become certified EMTs at the applicable level of care.

Instructor/Coordinator (I/C) means a person approved by the Department to organize and teach the Basic EMT course.

License means an authorization to provide ambulance or EMS first response service, pursuant to the provisions of 105 CMR 170.000.

Local Jurisdiction means an entity empowered by the legislative body within a city, town, fire district or water district to select service zone providers, including, but not limited to, a city council, board of selectmen, board of aldermen, mayor or town manager.

Massachusetts Emergency Medical Care Advisory Board (EMCAB) means the EMS System Advisory Board established under M.G.L. c. 111C, § 13.

Medical Control means the clinical oversight by a qualified physician to all components of the EMS system, including, without limitation, Statewide Treatment Protocols, medical direction, training of and authorization to practice for EMS personnel, quality assurance and continuous quality improvement.

Medical Direction means the authorization for treatment established in the Statewide Treatment Protocols provided by a qualified medical control physician to EMS personnel, whether on-line, via direct communication or telecommunication, or off-line, via standing orders.

Patient means an individual who is sick or injured and requires EMS and/or transportation in an ambulance.

Person means an individual, a company, or an entity or an agency or political subdivision of the Commonwealth.

Place of Business means the locations owned, leased or used pursuant to an agreement by an EMS provider for EMS purposes, including headquarters, branch offices and garages.

Point-of-Entry Plan means a plan that is designed to ensure that EMTs transport a patient(s) in their care to the closest appropriate health care facility.

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Primary Ambulance Response means first-line ambulance response, pre-hospital treatment and transportation by an ambulance service designated as a service zone provider or recognized in a service zone plan to provide first-line ambulance response, pre-hospital treatment and transportation pursuant to a provider contract.

Primary Ambulance Service means the business or regular activity, whether for profit or not, by a licensed ambulance service, designated under a service zone plan for the purpose of providing rapid response and pre-hospital EMS, including, without limitation, patient assessment, patient treatment, patient preparation for transport and patient transport to appropriate health care facilities, in conformance with the service zone plan.

Provider Contract means an agreement, written or verbal, with an ambulance service to provide primary ambulance response to facilities with health care professionals on site, or to special events or functions with a dedicated ambulance on site. This definition shall not preclude any other category of provider contract that is recognized by the local jurisdiction in a service zone plan.

Refresher Training means an educational program that meets or exceeds the current curriculum requirements of the U.S. Department of Transportation's EMT-Basic or EMT-Paramedic Refresher Program, as applicable, or the 1985 U.S. Department of Transportation's EMT-Intermediate Refresher Program, to enable certified EMTs at each level of care to maintain their certifications.

Region means a geographic area of the state defined by the Department as an EMS planning area.

Regional EMS Council means an entity created pursuant to M.G.L. c. 111C, §4 and designated by the Department to assist the Department in establishing, coordinating, maintaining and improving the EMS system in a region.

Regular Operating Area means any local jurisdiction or part thereof in which the ambulance service:
(1) is the designated primary ambulance service;
(2) has an agreement with the primary ambulance service;
(3) has an agreement to provide backup service;
(4) has a provider contract; or (5) has a base location.

Service means an EFR service or an ambulance service.

Service Zone means a geographic area defined by and comprised of one or more local

jurisdictions, in which a local jurisdiction may select, and the Department shall designate, an EFR service and an ambulance service to provide EMS first response and primary ambulance response to the public within that defined geographic area, pursuant to M.G.L. c. 111C, §10.

Service Zone Provider means an EMS provider, selected by a local jurisdiction and designated

by the Department to provide primary ambulance service or EMS first response, or both, to the public within a service zone. A service zone provider shall be staffed and equipped to be available for primary ambulance service or EMS first response 24-hours-a-day, seven-days-a- week.

Special Population means any person or group of persons with unique medical, physical or social problems that require other than customary emergency medical care.

Statewide Treatment Protocols means the Emergency Medical Services Pre-Hospital Treatment Protocols approved by the Department for application statewide.

Training Institution means a school or other entity that offers initial training, refresher training and/or continuing education, and refers to such school or other organization only with regard to its provision of EMS training programs.

Training Program means an EMS instructional course, offered either as initial training, refresher training or continuing education.

Transportation means the conveyance of a patient by ambulance because of medical necessity or extenuating circumstances to prevent significant aggravation or deterioration of the patient's condition, or because the condition of the patient is unknown and could reasonably be suspected to warrant the use of an ambulance, or because the patient could not be moved by any other means.

Trauma means tissue injury due to the direct effects of externally applied mechanical, thermal, electrical, electromagnetic or nuclear energy, as further defined in the Statewide Treatment Protocols. Trauma shall not mean toxic ingestion, poisoning or foreign body ingestion.

Trip Record means a report or other written record, such as a dispatch record, generated by all services to document every response to an EMS call, including each time an EMS vehicle is dispatched, whether or not a patient is encountered or ultimately transported by an ambulance service.

Unique Population means the population of a state institution, an industrial plant or a university.

170.050: The State EMS Plan

(A) The Department shall develop and implement the state EMS plan, in consultation with the Regional EMS Councils. The state EMS plan shall be updated at least every three years. The state EMS plan shall:

(1) identify goals and specific, measurable objectives for each component of the delivery of statewide EMS services, listed at 105 CMR 170.050(B);
(2) identify methods to be used in achieving the stated objectives;
(3) identify a method for evaluating achievement of the stated objectives;
(4) include an estimate of costs for achieving each of the stated objectives, with projected funding sources.

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(B) The components to be addressed in the state EMS plan include, but are not limited to, the following:
(1) EMS resources, their costs and distribution throughout the state;
(2) Accessible hospitals, including trauma centers and other health care facilities;
(3) Inter-facility transport of patients to hospitals, or other programs or facilities for follow-up care and rehabilitation;
(4) Training, continuing education and certification of EMS personnel, licensure of EMS services and needs of special populations, including children;
(5) Communications systems for EMS, including but not limited to CMEDs;
(6) Medical control and medical direction, including the Statewide Treatment Protocols;
(7) Standardized patient data collection systems;
(8) Evaluation and continuous quality improvement;
(9) Research studies;
(10) Mass casualty incidents, natural disasters, large scale events and declared states of emergency;
(11) The status of local service zone planning, including a complete list of communities that are not yet covered by a Department-approved service zone plan. This list shall be included in the Department's annual report filed with the Legislature; and
(12) Programs for public education and prevention of injury and illness.
(C) All regional EMS plans developed pursuant to 105 CMR 170.104 shall be consistent with the state EMS plan, and shall be updated as frequently as the state plan is updated.

170.101: Regional Boundaries

The Department recognizes five geographic regions, as they existed on March 30, 2000.
In each of these regions, the Department shall designate for a three-year renewable term a single Regional EMS Council to assist in the development of regional emergency medical services systems. Any regional group seeking designation must apply for designation on forms provided by the Department and submit all documents required by the Department for evaluation pursuant to 105 CMR 170.103.

170.102: Process for Department Designation of Regional EMS Councils

(A) Designation of Regional EMS Councils shall be made by the Department after appropriate evaluation and investigation of applicants and after a review of documentary evidence which demonstrates that the applicant has met the criteria and conditions for designation as set forth in 105 CMR 170.103. In addition, the Department shall consult with the Massachusetts Emergency Medical Care Advisory Board.
(B) In the event that two applicants from the same region apply for designation, the Department shall designate the applicant who most completely fulfills the designation criteria.

170.103: Criteria and Conditions for Department Designation of Regional EMS Councils

Each applicant for designation as a Regional EMS Council shall be evaluated on the basis

of all of the following criteria and conditions:



(A) Evidence of support for designation as a Regional EMS Council from a substantial number of municipal governments, hospitals, and ambulance services geographically distributed within the area covered by the proposed Regional EMS Council;

(B) A commitment to cooperate with the Department in its effort to carry out its authority and responsibility as defined in M.G.L. c. 111C;

(C) A commitment to adopt a regional EMS plan within one year of adoption of the state EMS plan, pursuant to 105 CMR 170.050.

(D) Regional Council Membership and Meetings

(1) Each Council shall be established through a fair and open selection process. It shall be structured so as to reflect equitably the entire geographic region, as well as the interests of the component entities of the EMS system. The Council shall be made up of at least ten persons, but no more than 35 members. At minimum, the Council shall have the following representation:

(a) one representing local governments;

(b) one designated by a hospital;

(c) one designated by a fire suppression service;

(d) one designated by a primary ambulance service;

(e) one designated by a law enforcement agency;

(f) one of whom is a licensed practicing physician with regular and frequent involvement in the provision of emergency care;

(g) one of whom is an emergency care nurse;

(h) one of whom is an EMT;

(i) one of whom is designated by an EMS first response service; and (j) one of whom is a consumer.

(2) Council membership shall reflect fairly and equitably representation from each geographic area throughout the region.

(3) Meetings shall be held with sufficient frequency to ensure execution of duties and functions and to ensure that adequate information is transmitted to and from the organizations, groups, professions, occupations, services, and/or disciplines and consumers represented by the respective Council members.

(4) All meetings, whether held separately or in conjunction with the Regional EMS Council, at which the business of the Council or Councils is conducted, shall be held as required by, and in conformance with M.G.L. c. 30A, § 11A, the open meeting law.

(E) Bylaws: Each Regional EMS Council shall draft and maintain updated bylaws. Bylaws shall be submitted to the Department, as updated, for its review and evaluation, and shall at minimum address the following:

(1) A selection process for Council members and officers;

(2) Enumerated duties and responsibilities of Council members and officers, including requirements for fair and equitable representation of the entire region and all component entities of the EMS system therein served by the Regional EMS Council, and periodic and regular reports to the Council; and

(3) A committee structure designed to facilitate duties and functions, and the achievement of

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the regional EMS plan.

(F) Regional EMS Councils, their members, officers and agents shall comply with M.G.L. c. 268A, the conflict of interest law, and conflict of interest provisions set out in their contracts with the Department.

170.104: Duties and Functions of Regional EMS Councils

Regional EMS Councils shall carry out the following duties and functions:

(A) Assist, support and cooperate with the Department in its efforts to carry out the provisions of M.G.L. c. 111C to coordinate, maintain and improve the EMS system;

(B) Assist the Department, upon the Department's request, in collecting and maintaining data and information as required by the Department, subject to and in compliance with the confidentiality requirements of the Department;

(C) Serve as the central administrative body to provide information, education and technical assistance on EMS system planning and coordination to local jurisdictions and EMS system providers and users in their region;

(D) Establish a liaison with other regional health care organizations or institutions such as local Boards of Health;

(E) Establish a liaison with other Regional EMS Councils, as necessary;

(F) Submit to the Department all EMS-related proposed policies, procedures and studies for review and approval prior to implementation. The Department shall act on the proposed policies, procedures and studies within 90 days of receipt;

(G) Assess and coordinate EMS within the region by evaluating distribution, accessibility and quality of basic and advanced life support services with the goal of fostering improvement where necessary to assure the availability of competent basic and advanced life support services throughout the region.

(H) Develop, submit to the Department for its approval, and implement Department-approved point-of-entry plans that are in conformance with the Statewide Treatment Protocols and other relevant regulations, policies, interpretative guidelines and administrative requirements of the Department. Such point-of-entry plans shall reflect and include, as appropriate, Department designations of hospitals for specialty care services, pursuant to 105 CMR 130.000 *et seq*.

(I) Assist the Department in assuring quality educational programs for EMS personnel by:
(1) Assessing the need for and availability of educational programs in their region;
(2) Evaluating the quality of educational programs;
(3) Serving as a central clearinghouse for available training equipment and supplies, including equipment and supplies owned by the Department or purchased with funds


obtained from the Department; and
(4) Reviewing training programs for EMS personnel for the purpose of making recommendations for approval to the Department.

(J) Assist the Department in establishing, coordinating and maintaining communications systems that are compatible with established Department policies and plans;

(K) Forward to the Department all information regarding possible violations of 105 CMR 170.000 for investigation and enforcement by the Department. The Department may, in its discretion, request that Regional EMS Councils, under the direction of the Department, assist in certain investigations and enforcement;

(L) Develop a regional EMS plan that is consistent with the state EMS plan pursuant to 105 CMR 170.050, within one year of completion of the state EMS plan. Regional plans shall be amended as frequently as the state EMS plan is updated. The Regional EMS Council shall submit the plan to the Department for review and approval prior to its implementation. The plan shall contain at a minimum:
(1) A statement of goals and specific, measurable objectives for each component of the plan for delivery of emergency medical services, consistent with the format of the state EMS plan and its components;
(2) Methods to be used in achieving the stated objectives;
(3) A schedule for achievement of the stated objectives;
(4) A method for evaluating achievement of the stated objectives; and,
(5) Estimated and itemized costs for achieving each of the stated objectives, with projected funding sources.

(M) Perform the following functions with respect to service zone planning in their regions:
(1) Develop an inventory of EMS resources in the region, and make the inventories available to local jurisdictions for service zone planning;
(2) Provide planning and technical assistance to local jurisdictions in their region in identifying, coordinating and making optimal use of all available EMS resources within the service zone;

(3) Pursuant to M.G.L. c. 111C, § 10(b), consult with the local jurisdiction(s) comprising each service zone in their region and review and recommend their local service zone plans to the Department, for the Department's review and approval;
(4) Develop a regional service zone plan, pursuant to 105 CMR 170.520, and submit it to the Department for approval; and
(5) Update and keep current information in local and regional service zone plans.

(N) Appoint a Regional Medical Director who is a qualified emergency physician;

(O) Prepare and submit annual reports to the Department for its review and evaluation, prior to the commencement of each fiscal year;

(P) Prepare and maintain records relating to Regional EMS Councils' responsibilities pursuant to M.G.L. c. 111C, 105 CMR 170.000 and contracts with the Department, and make such records
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available to the Department in full for inspection upon request; and

(Q) Carry out the duties and functions required by the scope of services in Regional EMS Council contracts with the Department.

170.105: Allocation of Department Funding to Regional EMS Councils

(A) All five Regional EMS Councils shall be awarded on an equal basis a baseline annual appropriation to carry out their core duties and functions pursuant to 105 CMR 170.104 and their contracts with the Department.

(B) The Department may allocate additional funds to selective Regional EMS Councils, on the basis of factors indicating their different resource requirements and volume of duties, including but not limited to the following:
(1) number of cities and towns;
(2) number of service zones;
(3) number of health care facilities requiring designation; or (4) unmet communications needs.

170.106: Distribution and Use of Department Funds by Regional EMS Councils

(A) Regional EMS Councils may distribute and use Department funds, consistent with their contracts with the Department, for purposes defined in 105 CMR 170.000, including:
(1) maintaining and operating the Regional EMS Councils;
(2) maintaining and operating CMED centers; or
(3) carrying out their duties and functions under 105 CMR 170.104 and contracts with the Department.

(B) Commencing in FY 2002, except as provided by the requirements set out in the Councils' contracts with the Department, Regional EMS Councils shall not distribute and use Department funds to provide training for EMS personnel, if such training:
(1) conflicts with the Councils' duties and responsibilities under 105 CMR 170.104 or their contracts with the Department; or
(2) is provided by any educational or other entity with which the Councils would directly compete in the marketplace.

(C) Effective December 31, 2006, any Department funds distributed to local jurisdictions by Regional EMS Councils, in accordance with 105 CMR 170.106, shall be distributed to only those local jurisdictions covered by a Department-approved service zone plan.

170.107: Grounds for Denial of Designation

(A) The Department may deny or refuse to issue designation in the following circumstances:
(1) If the applicant fails to meet or conform to the designation criteria and conditions of
105 CMR 170.103; or
(2) If a competing application for designation was already granted.


(B) An applicant denied designation may reapply when the designation criteria and conditions have been met, providing no other applicant has been designated in the interim.

(C) Denial of designation may be appealed in accordance with 105 CMR 170.760.

170.108: Grounds for Revocation or Refusal to Renew Designation

(A) The Department may revoke or refuse to renew the designation of a Regional EMS Council in the following circumstances:
(1) Failure to maintain the standards required by the designation criteria and conditions of
105 CMR 170.103;
(2) Failure to fulfill duties and functions as set forth in M.G.L. c. 111C, 105 CMR 170.000
and contracts with the Department;
(3) Engaging in fraud or deceit to obtain or maintain designation, or in carrying out duties
and functions under 105 CMR 170.000 and contracts with the Department;
(4) Any action or omission that endangers the health or safety of the public;
(5) Violation of a correction order; or
(6) Failure to comply with a plan of correction.

(B) Revocation or refusal to renew designation may be appealed in accordance with 105 CMR 170.760.

170.200: Licensure of Ambulance and EFR Services
(A) No person shall establish, operate or maintain an ambulance or EFR service without a valid license or in violation of the terms of a valid license. All services shall be licensed as provided in 105 CMR 170.000. Any person who proposes to establish or operate a service shall apply for and obtain from the Department a license before initiating service.
(B) Ambulance services may be licensed at the BLS, ALS or critical care service level, and EFR services may be licensed at the EMS first response, BLS or ALS level. Licensure as an

ambulance service at a particular level of service includes licensure to provide ambulance or EFR service at the same or lower level of service.
(C) Ambulance and EFR service licenses shall identify and reflect the number of EMS vehicles to be operated, the classification of each certified EMS vehicle to be operated and maintained, and the level of service at each place of business. No service shall operate at a level of service above that for which it is licensed.

(D) To be eligible for licensure at the critical care service level, the applicant must document the following:
(1) Current licensure from the Department as an ambulance service at the ALS-Paramedic level;
(2) Current written affiliation agreement between a hospital and the applicant, meeting the requirements of 105 CMR 170.300, under which the hospital shall provide oversight of the delivery of critical care services and designate a medical director to have authority over
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the clinical and patient care aspects of critical care services; and
(3) (a) As of December 1, 2006, current CAMTS accreditation, in good standing, from the CAMTS, its successor(s), or an accreditation program the Department approves as substantially equivalent to CAMTS, or
(b) Prior to December 1, 2006, current CAMTS accreditation or pending application for accreditation by CAMTS or an accreditation program the Department approves as substantially equivalent to CAMTS, provided, however, that the applicant must achieve such accreditation and notify the Department of such accreditation no later than December 1, 2006.

170.215: Service License and Vehicle Inspection Fee
A non-refundable fee established by the Department, pursuant to M.G.L. c. 111C, § 3(b)(21), shall be submitted (1) with the completed application for license form, and (2) upon acquisition of any additional vehicles during the licensure period. The fees are as follows:
(A) Service License.
(1) Ambulance BLS: $400.00 biennially
(2) Ambulance ALS: $600.00 annually
(3) Ambulance Critical Care Services: $750 annually
(4) EFR service at EMS first response level only: $100.00 biennially
(5) EFR service BLS: $150.00 biennially
(6) EFR service ALS: $200.00 annually

(B) Ambulance Vehicle and EFR Service Equipment Inspection.
(1) Ambulance, BLS and ALS: $200.00 per vehicle, for each inspection.
(2) EFR service, ALS: $50.00 for inspection of each EFR vehicle's EMS equipment and supplies.

170.220: Finding of Responsibility and Suitability for Service Licensure
(A) Upon receipt and review of a complete application or reapplication for ambulance or EFR service licensure, the Department shall make a finding concerning the responsibility and suitability of each applicant. Findings may be based upon information concerning persons with a significant financial or management interest in the service. Factors that have significant bearing in determining the responsibility and suitability of an applicant include, but are not limited to, the following:
(1) The applicant's history of prior compliance with 105 CMR 170.000, 105 CMR 171.000; applicable administrative requirements issued by the Department pursuant to 105 CMR 170.000 and M.G.L. c. 111C;
(2) The familiarity and experience of the applicant in operating ambulance services, other emergency medical services or first response services, including compliance history in other states in which the applicant has operated a licensed ambulance service;

(3) The applicant's ability to provide and sustain on an ongoing basis, sufficient quality and quantity of ambulance or EMS first response service in a service zone or portion thereof, in accordance with a service zone plan, or, prior to the existence of an approved service zone plan, in a geographic area;

(4) Any willful or deliberate failure to provide ambulance or EMS first response service to a person for reasons of race, color, religion, sex, sexual orientation, age, national origin, ancestry or disability;
(5) Any willful or deliberate failure to provide ambulance or EMS first response service to any patient experiencing an emergency;
(6) The ability and willingness to take corrective action when notified by the Department of violations of 105 CMR 170.000 or 171.000;
(7) The ability of service administrators to operate the service in a manner sufficient to satisfy the requirements of 105 CMR 170.000 or 171.000 and administrative requirements of the Department issued thereunder;
(8) Whether the applicant has a past history of patient abuse, mistreatment, or neglect;
(9) Whether the financial resources of the applicant are deemed adequate to provide ambulance or EMS first response service sufficient to meet the requirements of 105 CMR 170.000 and the applicable service zone plan, as demonstrated by a current budget or a current annual financial statement;
(10) Whether the applicant is of sufficient moral character to allow the Department, acting in good faith, to permit the applicant to render ambulance or EMS first response services. Presumptions of unsuitability will be made against:
(a) An applicant convicted of Medicare or Medicaid fraud.
(b) An applicant convicted of a crime relating to the operation of the service.
(c) An applicant convicted of drug abuse, rape, assault or other violent crimes against a person.
(d) An applicant who has been the subject of an order or judgment granting damages or equitable relief in an action brought by the Attorney General concerning the operation of the applicant's ambulance service, other emergency medical services or first response services.
(11) The adequacy of the service's legal capacity to operate, as demonstrated by such documents as articles of incorporation and corporate by-laws;
(12) Any attempt to impede the work of a duly authorized representative of the Department or the lawful enforcement of any provisions of M.G.L. c. 111C or 105 CMR 170.000; and
(13) Any attempt to obtain a license or certificate of inspection by fraud, misrepresentation, or the submission of false information.

(B) If the Department is unable to make a finding of responsibility and suitability due to the existence of any of the factors listed in 105 CMR 170.220(A)(1) through (13), the applicant will then have the burden of persuasion to prove the applicant's responsibility or suitability.

170.225: Inspection

(A) Ambulance Service Inspection: Agents of the Department may visit and inspect an ambulance service at any time, including:

(1) The premises of the ambulance service, including the headquarters, garage or other locations;
(2) The storage space for linen, equipment and supplies at any premises of the ambulance service;
(3) All records of the ambulance service, including but not limited to, employee application
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forms, policies and procedures; dispatch reports, incident and accident reports, patient care and trip records; information relating to complaints registered with the service, and all other records, memoranda of agreement and affiliation agreements required by 105 CMR 170.000;
and
(4) Any vehicle used by the service.

(B) EFR Service Inspection: Agents of the Department may visit and inspect an EFR service at any time, including:
(1) All records pertaining to the provision of EMS services including, but not limited to, employee records, policies and procedures for EMS personnel; dispatch and EMS response reports; incident and accident reports and patient care records; memoranda of agreement and affiliation agreements required by 105 CMR 170.000; and information relating to complaints regarding provision of EMS by the service; and
(2) The EMS-related equipment used by the service.

(C) If upon inspection deficiencies are found to exist a service may at the discretion of the Department be licensed upon presentation of a timely written acceptable plan of correction, as described in 105 CMR 170.710.

170.230: Processing of Service License Applications
(A) The Department shall issue a license to those applicants meeting the requirements of 105 CMR 170.000. The Department shall act on applications for original licensure within 60 days of receipt of the completed forms and fees.
(B) Applicants for license renewal must submit to the Department the completed forms and fees required by the Department at least 60 days prior to the expiration of their current license.

(C) If the complete renewal application is timely filed with the Department the license shall not expire until the Department makes a determination on the renewal application. If, however, an application is not submitted in a timely fashion in accordance with 105 CMR 170.230, then the service may not continue to operate after expiration of its license without written permission by the Department.

(D) A license shall not be renewed if there are any outstanding assessments issued pursuant to 105 CMR 170.730.

(E) A license at the BLS or ALS level shall remain in effect for a period of up to 24 months, at the discretion of the Department.

(F) A license to provide critical care services shall be coterminous with the period of CAMTS or

Department-approved substantially equivalent accreditation on which it is based. If a service's accreditation, upon which critical care service licensure is issued, has not been maintained, lapses or expires, the service's critical care license from the Department shall expire immediately, and the service shall not continue to provide critical care services.

(G) A service licensed to provide critical care services that loses its CAMTS or Department-approved substantially equivalent accreditation on which its licensure at this level is based, shall notify the Department immediately. A service that plans to change its status as accredited, or take action that will result in loss of its accreditation, by CAMTS or an accreditation program approved by the Department as substantially equivalent, shall notify the Department 60 days prior to the proposed effective date of such change.

170.235: Provisional Service License

(A) Pursuant to M.G.L. c. 111C, § 6(c), the Department may issue a provisional license to an applicant for renewal of a license when it does not meet the requirements of 105 CMR 170.000, provided that:

(1) the applicant has demonstrated to the Department's satisfaction a good faith intention to meet all such requirements;

(2) the Department finds the applicant provides adequate emergency medical care; and (3) the Department finds the applicant evidences a potential for full licensure within a reasonable period, not to exceed six months.

(B) The applicant shall submit, on a form required by the Department, a written plan for meeting the appropriate requirements and the plan must be approved by the Department.

(C) A provisional license shall expire six months after issuance. The Department shall in no case issue more than two consecutive provisional licenses to the same service.

(D) An initial license application may be required by the Department at the conclusion of the provisional licensure period at the discretion of the Department or after issuance of two consecutive provisional licenses.

170.240: Modification of a Service License

(A) Pursuant M.G.L. c. 111C, §8(a), any service seeking to modify any term of its license shall obtain the approval of the Department prior to making any modification. A service shall request approval to modify on forms provided by the Department.

(B) Approval for a license modification shall be required for, but not limited to, the following:

(1) When a new certificate of inspection for an EMS vehicle is issued or when a certificate of inspection is revoked by the Department or deleted by the service;

(2) When a change is made in the level of service; or

(3) When a service adds or deletes a place of business from which services are provided.

(C) The Department shall not grant approval for a license modification unless it finds that the

modification requested is in the public interest. If the modification requested involves a substantial change in the nature and scope of services, the Department shall also find that such change serves a need for emergency medical care before approving the modification.

170.245: Transfer or Assignment of a Service License



Pursuant to M.G.L. c. 111C, §8(b), no licensee shall transfer or assign in any manner, voluntarily or involuntarily, directly or indirectly, or by transfer of control of any company or of any asset or any equity interest in any entity, the license issued to the licensee or any rights thereunder, without first applying in writing to the Department for permission to transfer or assign the license. The Department shall grant or deny the request in writing within 60 days of the filing of the request. No transfer of a license shall be effective without written prior approval by the Department.

(A) In order to grant written permission to transfer or assign, the Department shall make the following findings:

(1) That the transferee or assignee is responsible and suitable to maintain a service, pursuant to 105 CMR 170.220; and

(2) That the transferee meets the applicable requirements for licensure, as provided in 105 CMR 170.000.

(B) Pursuant to M.G.L. c. 111C, §8(b), if an application for transfer or assignment is denied, the Department shall issue a denial order. Such an order shall include a statement of the reasons for denial and provisions of the law relied upon, and shall be subject to judicial review through a petition for a writ of certiorari brought within 30 days under the provisions of M.G.L. c. 249, § 4.

(C) A transferee shall provide such information as requested by the Department to update the Department's records following transfer.

(D) The terms of the license shall not be altered, amended, or modified by a transfer of the license. Upon approval of the transfer, the new licensee may apply for a modification of the transferred license pursuant to 105 CMR 170.240.

(E) Upon the Department's approval of a transfer of the license, the licensee shall turn over to the transferee, prior to the effective date of the transfer, all records of the service subject to the inspection of the Department pursuant to 105 CMR 170.225.

170.247: Notification of Termination or Other Change of Service

(A) A service shall give written notice in accordance with 105 CMR 170.247(B) of the following

types of changes with regard to its service delivery:
(1) Termination of services;
(2) Change in the level of service delivered to a service zone or local jurisdiction;
(3) Temporary cessation of services; or
(4) Sudden event that interferes with the level of service it can provide.

(B)(1) Notice of changes in 105 CMR 170.247(A) must be provided in writing to the following entities:
(a) the Department;
(b) the appropriate Regional EMS Council; and
(c) the service zone in which it operates or in which it is a designated provider, and
prior to the existence of service zones, the appropriate local jurisdiction(s).

(2) Notice of changes in 105 CMR 170.247(A)(1) and (2) must be provided at least 90 days prior to the effective date of the change, or as soon as the service is aware of the need for the termination or change.
(3) Notice of changes in 105 CMR 170.247(A)(3) and (4) must be provided as soon as the service is aware of the need for the change.
(4) A notice of changes in service delivery shall be accompanied by a plan to prevent a disruption in EMS service, subject to the approval of the Department.

170.248: Notification of Provider Contract to Respond to Emergencies

All services shall provide written notification to the appropriate local jurisdiction(s) of all provider contracts they have for primary ambulance response within the service zone. Services shall provide notice to the local jurisdiction(s), at minimum, when an initial provider contract is established, a provider contract is terminated or renewed, or any changes are made to the provisions of a provider contract relating to emergency calls. For contracts to provide coverage at special events, including multi-jurisdictional special events, at venues with which the service does not have a prior existing provider contract for primary ambulance response on a regular basis, advance written notice shall be provided to all local jurisdictions implicated by the events.

170.249: Service Zone Agreements

(A) The local jurisdiction shall ensure that the designated primary ambulance service executes a service zone agreement with each ambulance service that notifies it, in accordance with 105 CMR 170.248, that the ambulance service has a provider contract for primary ambulance response in the service zone. The service zone agreement shall, at a minimum:
(1) Coordinate and optimize the use of resources for primary ambulance response, and ensure an appropriate response to emergencies;
(2) Reflect the service zone's performance standards for primary ambulance response that the ambulance service with a provider contract must meet; and
(3) Define the process for notification of an EFR service, if any, of primary ambulance response calls received by the ambulance service with a provider contract. Such process shall comply with the provisions of 105 CMR 170.355(B)(1) and 105 CMR 170.510(I)(3)(f).

(B) Copies of the service zone agreements shall be included in the service zone plan.

(C) Specific provider contracts for one-time special events may not be known at the time the service zone plan is developed. Such contracts and performance standards applicable to them may be referenced generally in the plan, provided that the ambulance service with a provider agreement gives written notice of the contract to the local jurisdiction(s), prior to the event.

170.250: Display of Service License

Each service shall publicly display its license to operate in its headquarters, and shall publicly display a copy of its license in all of its other places of business.



170.255: Out-of-State Ambulance Services

(A) Ambulance services located in and licensed in another state are not required to be licensed in accordance with 105 CMR 170.000 if they are transporting patients from locations outside of Massachusetts to locations within Massachusetts.

(B) No ambulance service shall regularly operate in Massachusetts unless the ambulance service is licensed in accordance with the provisions set forth in 105 CMR 170.000. An out-of-state ambulance service shall be deemed to be regularly operating in Massachusetts if:

(1) the service advertises in Massachusetts, or otherwise solicits business in Massachusetts; (2) the service has a contractual agreement to provide ambulance service in Massachusetts;
or

(3) the service transports persons from locations within Massachusetts on a routine or frequent basis.

(C) Out-of-state ambulance services which provide only backup service to Massachusetts ambulance services are exempt from the requirements of 105 CMR 170.255(B). However, such a service must be in compliance with all applicable licensing laws and regulations in the state in which the backup ambulance service is based.

(D) If an out-of-state ambulance service regularly operates in Massachusetts, within the meaning of 105 CMR 170.255(B), that service shall either maintain a place of business within Massachusetts or make acceptable provisions for Department inspection of the service's vehicles and records. Such service shall meet all requirements imposed by M.G.L. c. 111C and 105 CMR 170.000, including being subject to enforcement and penalties for failure to comply, pursuant to 105 CMR 170.710 through 170.730, unless such requirements are waived by the Department.

170.260: Grounds for Denial of a License

(A) Grounds for license denial include, but are not limited to, the following:

(1) Failure to submit a license application in accordance with the requirements of 105 CMR 170.000.

(2) Failure to satisfy the Department as to any of the grounds for determining the responsibility and suitability of the applicant under 105 CMR 170.220.

(3) Failure to meet the applicable requirements of licensure, as specified in 105 CMR 170.000.

(4) Failure to comply with 105 CMR 170.303 regarding registration in accordance with M.G.L. c. 94C.
(5) Fraud, deceit or knowing submission of inaccurate or incomplete data to the Department, either orally or in writing.

(B) Denial of a service license may be appealed in accordance with 105 CMR 170.760.

170.265: Grounds for Revocation, Suspension, or Refusal to Renew a License
(A) Grounds for license revocation, suspension, or refusal to renew a license include, but are not limited to, the following:
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(1) Violation of any applicable requirement prescribed under M.G.L. c. 111C;
(2) Violation of a correction order;
(3) Engaging in, or aiding, abetting, causing, or permitting any act prohibited under M.G.L. c. 111C;
(4) Failure to allow the Department to inspect the service or parts thereof;
(5) Use of EMS personnel who are not certified or not qualified to carry out the required level of patient care;
(6) Failure to comply with a plan of correction;
(7) Operation or maintenance of an EMS vehicle, EMS equipment or service in a manner that endangers the public health or safety;
(8) Failure to meet the licensure requirements of 105 CMR 170.000;
(9) Conviction of the licensee or a person with significant financial or management interest in the service of Medicare or Medicaid fraud or other criminal offense related to the operation of the service;
(10) Conviction of the licensee or a person with significant financial or management interest in the service of a criminal offense such as drug abuse, rape, assault, or other violent crime against a person, which indicates that continued operation of the service may endanger the public health or safety;
(11) Failure to comply with 105 CMR 170.303 regarding M.G.L. c. 94C registration;
(12) Failure to submit an acceptable plan of correction as required under 105 CMR 170.710;
(13) Failure to pay a deficiency assessment levied in accordance with 105 CMR 170.730;
(14) Failure to provide certification of compliance with all laws relating to taxes, or to provide a certificate of good standing from the Commissioner of Revenue, in accordance with M.G.L. c. 62C, § 49A;
(15) Any attempt to impede the work of a duly authorized representative of the Department or the lawful enforcement of any provisions of M.G.L. c. 111C or 105 CMR 170.000; or
(16) Any attempt to obtain or maintain a license or certificate of inspection by fraud, misrepresentation or the submission of false information.

(B) Revocation, suspension or refusal to renew a service license may be appealed in accordance with 105 CMR 170.760.

170.270: Effect of Suspension, Revocation or Refusal to Renew a Service License

Pursuant to M.G.L. c. 111C, §16, suspension or revocation of a license or refusal to renew a license shall result in the simultaneous revocation of the certificate(s) of inspection or refusal to renew certificate(s) of inspection for the service's EMS vehicles.

170.275: Waiver

An applicant for a license, or a licensee under 105 CMR 170.000, may apply to the Department for a temporary waiver of those requirements with which the service is unable to

comply. A temporary waiver may be renewed, in accordance with administrative requirements of the Department.

(A) An applicant for a waiver shall submit the following in writing:

(1) Evidence of a prior good faith effort to comply with each requirement for which a waiver



is requested;

(2) A statement documenting why the service cannot comply with each requirement for which a waiver is requested, including any financial or other significant hardship resulting from efforts to comply;

(3) A statement documenting why non-compliance with each requirement will not cause the service to be unable to render adequate care;

(4) Reasons why compliance with each requirement is not possible for a given period of time; and

(5) A plan for compliance with each requirement within the period requested by the waiver.

(B) The Department may grant a waiver of one or more requirements upon satisfactory documentation by the applicant for the waiver and a finding by the Department that the applicant:

(1) Has made a good faith effort to comply with the requirements for which waiver is requested;

(2) Would suffer undue hardship if compliance were required;

(3) Has adopted alternative procedures or features that are functionally equivalent to the requirement to be waived; and

(4) Has instituted the alternative procedures or features, which adequately protect the health and safety of the patients served by the service and do not limit the service's ability to provide adequate services.

(C) Pursuant to M.G.L. c. 111C, § 9, the Department may grant a licensee a temporary waiver of the EMT certification requirement set forth in 105 CMR 170.910 for an individual who has completed the Department-approved EMT training course requirements, or Department- approved equivalent training, in accordance with provisions set out in the Department's administrative requirements for temporary waivers. Application for such a waiver shall be submitted on a form provided by the Department and shall include:

(1) a copy of the individual's current training card in basic life support cardiopulmonary resuscitation, as required in 105 CMR 170.810(C)(1); and

(2) a copy of the individual's valid motor vehicle operator's license.

(D) The application for a waiver shall be granted or denied within 30 days of receipt of the completed application. The Commissioner or his/her designee shall evaluate the waiver request

and consider whether or not it is in the public interest to grant the waiver. The decision of the Commissioner or his/her designee shall be final.

(E) All waivers granted pursuant to 105 CMR 170.275 are subject to revocation by the Department if the licensee or applicant for the license fails to abide by the requirements of the waiver. A licensee or applicant for a license whose waiver is revoked by the Department may appeal that action, in accordance with 105 CMR 170.760.

170.285: Certification of Vehicles and Personnel
Each service shall:

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(A) Ensure that the EMS vehicle(s) it operates and maintains comply with all applicable standards for certification set forth in 105 CMR 170.000, applicable motor vehicle standards under M.G.L. c. 90 and other relevant laws and regulations;
(B) Ensure that the EMS personnel who work for it comply with the applicable standards set forth in 105 CMR 170.000;
(C) Ensure that EMS personnel carry on their person or in the EMS vehicle on which they are working, identification of their current certification level, current CPR training card, and a valid motor vehicle operator's license; and
(D) Verify its EMTs' credentials by examining all required original documents. In the case of an EFR service at the EMS first response level, it shall be responsible for current certification of its EFRs who are not EMTs, and for verifying these EFRs' current credentials by examining all required original documents.

170.290: Places of Business

Each service's places of business shall meet the requirements of 105 CMR 170.000 applicable to its level of service.

170.295: Levels of Advanced Life Support

A service may provide only those advanced life support services that are consistent with the level of service for which the service is licensed. Licensure at any ALS level includes licensure for the provision of BLS-level services. The levels of licensure for ALS services are:
(A) Intermediate Level: services related to airway and circulatory maintenance pursuant to the Statewide Treatment Protocols and any other procedure which is consistent with Department-approved training for EMT-Intermediates.

(B) Paramedic Level: services related to the treatment of cardiac or respiratory arrest, poisoning, drug overdose or other major trauma or illness pursuant to the Statewide Treatment Protocols and any other procedure which is consistent with Department-approved training for EMT-Paramedics.

170.300: Affiliation Agreements

(A) To be licensed to provide ALS services, each ambulance or EFR service must have a current written contract with one hospital licensed by the Department to provide medical control. This agreement shall contain a reasonable and effective plan for medical control and include the following features:
(1) Treatment protocols and point-of-entry plans using regional guidelines that are in conformance with the Statewide Treatment Protocols, and other relevant regulations, policies and administrative requirements of the Department;
(2) Designation of an affiliate hospital medical director, who shall have authority over the clinical and patient care aspects of the affiliated EMS service, including but not limited to

the authorization to practice of its EMS personnel;



(3) Provision of on-line medical direction in accordance with the Statewide Treatment Protocols 24 hours a day, seven days a week, by a hospital-based physician;
(4) Operation of an effective quality assurance/quality improvement (QA/QI) program coordinated by the affiliate hospital medical director and with participation of on-line medical direction physician(s) and service medical director, if different from the affiliate hospital medical director, that includes, but is not limited to, regular review of trip records and other statistical data pertinent to the EMS service's operation, in accordance with the hospital's QA/QI standards and protocols, in those cases in which ALS services were provided or in which ALS established direct patient contact;
(5) Operation of a program for skill maintenance and review for EMS personnel;
(6) Ensuring EMS personnel have access to remediation, training and retraining, as necessary, under the oversight of the affiliate hospital medical director or his or her designee;
(7) Regular consultation between medical and nursing staffs and EMS personnel providing ALS services, including but not limited to attendance at morbidity and mortality rounds and chart reviews;
(8) A procedure by which a physician can maintain recorded direct verbal contact with the EMS personnel regarding a particular patient's condition and order, when appropriate, the administration of a medication or treatment for that patient, to which such physician or his or her designee shall sign the trip record documenting the patient's care and transport by the EMS personnel;
(9) Policies and procedures for obtaining medications from the hospital's pharmacy;
(10) A procedure by which the service shall notify the affiliate hospital medical director of Department action against any EMT's or EFR's certification (denial, suspension, revocation or refusal to renew certification), or other Department disciplinary action (letter of reprimand, letter of clinical deficiency, advisory letter) against any EMS personnel employed by the service, and
(11) If the service has more than one affiliation agreement, the identity of all hospitals with which the service has affiliation agreements and policies and procedures that set forth the duties and responsibilities of each affiliate hospital.

(B) A service that has bases of operation in more than one EMS region shall maintain an affiliation agreement in each of the EMS regions in which it operates. A service that maintains more than one place of business within a single EMS region may maintain more than one affiliation agreement provided the Department approves the additional agreement. No service that maintains a single place of business may enter into more than one affiliation agreement.

(C) On-line medical direction may be delegated by the medical control hospital to physicians at

another hospital. If on-line medical direction is routinely delegated to physicians at another hospital, then such hospital may be a party to the affiliation agreement between the service and the medical control hospital.

170.303: Registration with the Department's Drug Control Program

Each service that possesses controlled substances and instruments for administration of controlled substances, in accordance with its level of service and the Statewide Treatment

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Protocols, shall be registered with the Commissioner, in accordance with 105 CMR 700.000 *et seq*. For the purpose of applying for licensure, it shall be sufficient for the service to document that a complete application for registration was submitted to the Commissioner.

170.305: Staffing

(A) Each ambulance and EFR service shall at all times maintain an adequate number of EMS personnel to staff EMS vehicles to ensure compliance with the requirements of 105 CMR 170.385 and to carry out its responsibilities of service under the applicable service zone plan(s).

(B) BLS Staffing. When a Class I, II or V ambulance transports a patient receiving care at the BLS level, the ambulance must be staffed with at least two EMTs, who are at a minimum certified at the EMT-Basic level, as set forth in 105 CMR 170.810. When an EFR service licensed at the BLS level responds to a call, it shall be staffed with a minimum of one EMT certified at a minimum at the EMT-Basic level.

(C) ALS Staffing.

(1) When a Class I, II or V ambulance transports a patient receiving care at the Intermediate level of ALS, the ambulance must be staffed with a minimum of two EMTs, at least one of whom is certified at the EMT-Intermediate, or higher, level.

(2) When a Class I, II, or V ambulance transports a patient receiving care at the Paramedic level of ALS, the ambulance must be staffed with a minimum of two EMTs, both of whom are certified at the EMT-Paramedic level.

(3) Notwithstanding the provisions of 105 CMR 170.305(C)(2), the Department may grant a waiver under 105 CMR 170.275(B) to an ALS service licensed at the Paramedic level, to provide ALS services with an ambulance staffed with an EMT-Paramedic and an EMT-Intermediate, provided that the following conditions are met:

(a) The ambulance service establishes protocols for:

1. Screening requests for ambulance services;

2. Ensuring the prompt arrival of the EMT-Paramedic and EMT-Intermediate at the scene of any emergency requiring ALS services;

3. Specifying the conditions, if any, under which a patient may be transported by an EMT-Paramedic and an EMT-Basic, in cases in which the EMT-Intermediate is not needed for the proper care of the patient during transport; and

4. Ensuring that the treatment provided by each EMT is consistent with the level of training and certification of that EMT;

(b) The Regional EMS Council reviews the waiver request and determines that the proposed plan is necessitated by limited local resources and would permit ALS services to be provided to persons who would not otherwise have access to such services;

(c) The ALS medical director for the affiliated medical control hospital reviews the waiver request and determines that in his/her judgment the proposed plan provides for the safe and appropriate use of advanced life support techniques.

(4) When a Class IV ambulance transports a patient being provided advanced life support

services, the ambulance must be staffed with at least two EMTs and one pilot. One EMT must be a registered nurse certified, at a minimum, as an EMT-Basic. The second EMT shall, at a minimum, be a certified EMT-Paramedic. Both EMTs shall have additional


training in the emergency care services to be used on the aircraft. However, in cases in which there exist special patient needs, such as during an inter-hospital intensive care transport, another registered nurse, a physician's assistant or a physician may be substituted in place of the EMT-Paramedic. Written protocols must be established by the service governing the staffing of the Class IV ambulance in such cases.
(5) When an ALS-level EFR service responds to a call, it shall send a minimum of one EMT certified at the Intermediate or Paramedic level, in accordance with its level of ALS licensure. Minimum staffing during transport shall be ensured pursuant to 105 CMR 170.307.

(D) Critical Care Service Staffing. Each critical care service transport must be staffed with the following personnel:
(1) An appropriately licensed driver or pilot, meeting CAMTS or Department-approved substantially equivalent accreditation requirements; and,
(2) A medical crew, consisting of two persons, as follows:
(a) One of whom at a minimum is licensed in Massachusetts as a registered nurse, and certified as an EMT-Basic, and meets CAMTS or Department-approved substantially equivalent accreditation requirements for personnel credentials, and
(b) One of whom is licensed in Massachusetts as a physician, or, at a minimum, is certified as an EMT-Paramedic and meets CAMTS or Department-approved equivalent accreditation requirements for personnel credentials.

(E)(1) Persons providing advanced life support services may employ only those techniques for which they have been certified under 105 CMR 170.000, unless such persons qualify as additional personnel in accordance with 105 CMR 170.310.
(2) If ALS care is initiated by an EMT associated with an ambulance service or an ALS-level EFR service, an EMT certified at least at the same level as the EMT who initiated care must attend the patient on the ambulance with appropriate equipment and continue ALS-level care until transport is concluded.
(3) The EMT functioning at the highest level of training and certification for their service must attend a patient requiring ALS service at the scene and during transport.
(4) EMTs staffing a critical care service transport shall use those techniques, medications and patient care procedures that comply with their critical care service's clinical practice protocols and standing orders that meet the requirements of CAMTS or an accreditation program the Department approves as substantially equivalent to CAMTS.

170.307: Memorandum of Agreement for ALS-Level EFR Services

(A) An ALS-level EFR service must maintain a current memorandum of agreement with either:
(1) the primary ambulance service designated in its service zone, provided that it is at the same level of ALS licensure or higher; or
(2) another transporting ALS ambulance service at the same or higher level of ALS licensure, provided that the agreement is coordinated through the primary ambulance service.

(B) The memorandum of agreement shall establish protocols for:

(1) medical control and medical direction that include, at a minimum, confirmation of the ALS-level EFR service's current affiliation agreement that complies with 105 CMR 170.300;
(2) interaction of EMS personnel;
(3) direct communication between the EFR vehicle and the transporting ambulance and its dispatch center; and
(4) assuring continuity of ALS care, begun at the scene, throughout transport.

170.310: Requirements for Additional Personnel on Ambulances
Additional personnel, beyond the minimum staffing requirements for ambulances under 105 CMR 170.305, may function on an ambulance according to the provisions listed in 105 CMR 170.310(A) and (B).
(A) Such personnel must be currently trained in Basic Life Support cardiopulmonary resuscitation through completion of a course not less than the standards established by the Committee on Cardiopulmonary Resuscitation and Emergency Cardiac Care of the American Heart Association. Their function may include the operation of a Class I, II, or V ambulance if permitted by written policies and procedures of the ambulance service; provided, however, that additional personnel may operate the vehicle only if the supervising EMT on the ambulance makes a determination that the care of the patient will be significantly improved by having both EMTs remain with the patient during transport;

(B) A registered nurse, physician or other health care professional may render care to a patient during the transport of a patient(s) by an ambulance from a hospital or other transferring facility when designated to do so by the transferring facility.

170.315: Insurance
(A) No original or renewal license shall be issued, except in the case of services owned or operated by an agency or political subdivision of the Commonwealth, to an applicant for an original or renewal license, which operates its EMS vehicles in direct connection with a place of business in Massachusetts, unless the applicant has satisfied the insurance requirements necessary to register each of its Class I, II, and V ambulances and its applicable EFR vehicles as a motor vehicle with the Massachusetts Registrar of Motor Vehicles, pursuant to M.G.L. c. 90, § 3 and §§ 34A through 34O, and in addition, has satisfied the minimum limits set out in 105 CMR 170.315(B).
(B) Each service shall carry the following insurance coverage for each of its EMS vehicles:
(1) A minimum of $100,000 on account of injury to or death of any one person;
(2) Subject to the limit as respects injury to or death of one person, a minimum of $500,000 on account of any one accident resulting in injury to or death of more than one person; and (3) A minimum of $25,000 because of injury to or destruction of property of others in any one accident.

(C) Each service shall file with the Department proof of contracts of insurance. The proof of contracts of insurance shall disclose that at least the minimum levels of insurance coverage set



out in 105 CMR 170.315(B) are carried by the service for each of its EMS vehicles.

170.320: Public Access

(A) Every ambulance service shall have a telephone with a publicly listed number to accept calls from the public within its regular operating area.

(B) Every ambulance service licensed to operate a Class I, IV, and Class II ambulances used as backup for a Class I shall have a telephone number that is publicly listed. The service shall provide that the telephone will be answered on a 24-hour-a-day basis either by the service or its first backup as required in 105 CMR 170.385. The service must have telephone capability for receiving two phone calls simultaneously.

(C) Exception: An ambulance service that, according to its written policy, does not respond to calls from the general public but responds only to calls from a unique population is exempt from the requirements of 105 CMR 170.320(A) and (B). However, the ambulance service shall have a telephone number made known to the unique population it serves and the telephone must be answered either by the service or its first backup as required in 105 CMR 170.385 during the period when that population might require service.

170.323: Diversion Status System Access

Effective November 1, 2001, all ambulance services shall have the ability to access the Department's web-based diversion status system either directly or indirectly through the service's dispatch center, or communication with a CMED, other dispatch center or through any entity connected to the diversion status system.

170.325: Advertising

(A) No person shall advertise by an means, including but not limited to, signs or symbols on the vehicle, that he or she operates or maintains a service, unless the service is licensed and its EMS personnel and EMS vehicles are certified as required in 105 CMR 170.000.

(B) No person shall engage in any advertising that is deceptive or misleading to the public or for services other than those for which it is currently licensed, for which its EMS personnel and EMS vehicles are certified and for which it is placed in service.

(C) Prior to transfer of ownership of an EMS vehicle, a licensed service, if it knows that the vehicle will be removed from service and will no longer be certified, shall ensure that all vehicle markings and emblems required by 105 CMR 170.000 are removed.

170.330: Written Policies and Procedures for Services

(A) Each ambulance service shall have written policies and procedures consistent with 105 CMR 170.000, the accepted standards of care for EMTs and applicable laws. These policies shall set out guidelines for operating and maintaining the service and ambulances, and shall be provided to EMTs. These policies shall be comprehensive, reflect current day-to-day operations, and

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address at minimum the following:
(1) Certification and recertification of EMTs;
(2) Orientation of all ambulance service employees;
(3) Duties of transportation and policies relating to delivery of patients to appropriate health care facilities;
(4) Non-discrimination;
(5) Backup services, including provisions for when such services are to be used;
(6) Dispatch;
(7) Communications;
(8) Stocking of supplies;
(9) Use of lights and warning signals;
(10) Staffing;
(11) Conduct of personnel;
(12) Mechanical failures;
(13) Inspection authorities;
(14) Infection control procedures;
(15) Compliance with the Statewide Treatment Protocols; and
(16) Maintenance of mechanical and biomedical equipment and devices according to manufacturers' recommendations.

(B) Each EFR service shall have written policies and procedures consistent with 105 CMR 170.000 and 171.000, the accepted standards of care for EMTs and EFRs and applicable laws. These policies shall establish guidelines for operating and maintaining the EFR service and shall be made available to all EMTs and EFRs working for or with the service. These policies shall address the following:
(1) Certification and recertification of EMTs;
(2) Orientation of all EMTs and EFRs;
(3) Service's responsibility for its EFRs meeting certification and recertification requirements;
(4) Transfer of patient care and patient care information from the EFR service to the transporting ambulance service;
(5) Dispatch;
(6) Communications;
(7) Stocking of supplies;
(8) Conduct of EMS personnel; (9) EMS inspection authorities;
(10) Infection control procedures;
(11) EMT compliance with the Statewide Treatment Protocols;
(12) Maintenance of biomedical equipment and devices according to manufacturers' recommendations; and
(13) Use of visible and audible warning signals.

(C) Each service that has its EMS personnel administer any medications authorized by and in accordance with the Statewide Treatment Protocols shall maintain a current memorandum of agreement with a hospital or hospital consortium, if it does not already have an affiliation agreement pursuant to 105 CMR 170.300. The memorandum of agreement shall address


acquisition and replacement of each of the medications used by service EMS personnel, quality assurance, treatment protocols, training, record keeping, shelf-life of the medication and proper storage, security and disposal conditions.

(D) Each ALS service must maintain comprehensive ALS operating procedures and policies, in addition to those required of all services pursuant to 105 CMR 170.330(A) and (B). ALS operating procedures and policies must include at a minimum the following:
(1) arrangements for securing additional appropriately trained personnel to assist EMTs providing ALS services in accordance with 105 CMR 170.305(C);
(2) the hours during which ALS service will be provided, if the service is not yet operating 24 hours a day, seven days a week, in accordance with 105 CMR 170.385(C); and
(3) the acquisition, security and disposal of controlled substances and other drugs, in accordance with 105 CMR 700.000 *et seq*.

(E) In addition to the policies and procedures required of ALS-level services, under 105 CMR 170.330(D), each service licensed at the critical care services level must maintain comprehensive critical care services policies, procedures, protocols and standing orders for patient care, as required by CAMTS or an accreditation program the Department approves as substantially equivalent to CAMTS. All clinical policies, procedures, protocols and standing orders must be:
(1) Developed in conjunction with, and approved by, the affiliate hospital medical director providing oversight for the critical care services provided by the service;
(2) Reviewed and updated as appropriate, with at minimum an annual review and approval of the affiliate hospital medical director, and
(3) Submitted to the Department on an annual basis.

(F) Standards for the contents of the procedures and policies are established separately by the Department as administrative requirements.

170.333: Duty to Operate in Accordance with Laws, Regulations, Protocols and Other Requirements

Each service shall operate, and shall ensure that its agents operate, in accordance with M.G.L. c. 111C, 105 CMR 170.000, all other applicable laws and regulations, the Statewide Treatment

Protocols, where relevant, administrative requirements of the Department, and the service's established policies and procedures that are consistent with 105 CMR 170.000.

170.335: Non-Discrimination

In accordance with requirements of federal and state anti-discrimination statutes, no person shall discriminate on the grounds of race, color, religion, sex, sexual orientation, age, national origin, ancestry or disability in any aspect of the provision of ambulance or EMS first response service or in employment practices.

170.340: Appointment of Designated Infection Control Officer

Each service shall ensure that its EMS personnel are informed of the requirements relating to the reporting of exposures to the infectious diseases set forth in 105 CMR 172.000,

and shall appoint one official of the service to act as a designated infection control officer to:
(A) Receive notifications and responses from health care facilities regarding exposures to infectious diseases dangerous to the public health, as defined in 105 CMR 172.001;
(B) Report said exposures to EMS personnel; and (C) Make requests on behalf of EMS personnel.

170.345: Records

Each service shall prepare and maintain records that are subject to, and shall be available for, inspection by the Department at any time upon request. Records shall be stored in such a manner as to ensure reasonable safety from water and fire damage and from unauthorized use, for a period of not less than seven years. Services shall also store and maintain the records of any service(s) they acquire, in the same manner.

(A) Records for services shall include at a minimum, as applicable, the following:
(1) EMS personnel and employment files and records;
(2) documentation of EMS personnel's current CPR training, EMT or EFR certification and valid motor vehicle operator's license, including when and by whom verification required by 105 CMR 170.285 was completed;
(3) For services licensed at the critical care service level, documentation of compliance with all CAMTS or Department-approved substantially equivalent accreditation standards, including, but not limited to, continuous quality improvement (CQI); training and orientation of critical care transport personnel; continuing clinical education; skill maintenance and requirements for ongoing demonstration of clinical competency of its critical care medical crews;
(4) preventive maintenance and repair records for ambulances and biomedical equipment and devices;
(5) current vehicle registrations;
(6) current Federal Aviation Administration (FAA) certifications and licenses for Class IV ambulances and pilots; and
(7) Federal Communications Commission (FCC) licenses.

(B) Each service shall maintain dispatch records, in either computer-aided (CAD) or handwritten form, and trip records for every EMS call including, but not limited to, cases in which no treatment is provided, the patient refuses treatment or there is no transport. Each trip record shall be prepared contemporaneously with, or as soon as practicable after, the EMS call that it documents, and shall, at a minimum, include the data elements pertaining to the call as specified in administrative requirements of the Department. In addition, an ambulance service that does not transport must include in the trip record the reasons for not transporting, including, if applicable, the signed informed refusal form from the patient(s).

(C) Trip Records and Unprotected Exposure Form Submission.
(1) EMS personnel at the scene who are not transporting the patient shall keep the original

trip record, and ensure that a copy of such trip record is timely delivered to the health care facility to which the patient is transported, in accordance with service zone plan

procedures. The receiving health care facility shall keep such trip records with the patient's medical record.
(2) The EMTs on each transporting ambulance shall leave a copy of the trip record at the receiving health care facility with the patient at the time of transport. The receiving health care facility shall keep such trip records with the patient's medical record.
(3) EMS personnel at the scene who are not transporting the patient shall ensure that an unprotected exposure form, as defined in 105 CMR 172.001, when appropriate, is timely delivered to the receiving health care facility, in accordance with service zone plan procedures. The EMTs on each transporting ambulance shall also submit an unprotected exposure form, as appropriate, to the receiving health care facility.

(D) Personal and medical information, whether oral or written, obtained by EMS personnel or services in the course of carrying out EMS shall be maintained confidentially. Such information contained in communications and records maintained by services pursuant to 105 CMR 170.345 shall be released as required in 105 CMR 170.345(C), and additionally only as follows:
(1) To the patient or the patient's attorney or legally authorized representative upon written authorization from the patient or the patient's legally authorized representative;
(2) To the Department in connection with a complaint investigation pursuant to 105 CMR 170.795;
(3) Upon proper order in connection with a pending judicial or administrative proceeding, and as otherwise required by law; or,
(4) Pursuant to the requirements of M.G.L. c. 111C, §3(15).
(5) Exceptions: No provision of 105 CMR 170.345(D) shall be construed to:
(a) Prevent any third-party reimburser from inspecting and copying, in the ordinary course of determining eligibility for or entitlement to benefits, records relating to treatment, transport or other services provided to any person, including a minor or incompetent, for which coverage, benefit or reimbursement is claimed, so long as the policy or certificate under which the claim is made provides that such access to such records is permitted, or
(b) Prevent access to any such records in connection with any peer review procedures applied and implemented in good faith.

170.347: Data Reports to the Department

Each ambulance service shall comply with all requirements established by the Department for submission of data to the Department, including but not limited to data pertaining to prehospital care and transport of trauma patients to appropriate health care facilities. Data submission requirements shall be specified in administrative requirements of the Department. Such

administrative requirements and amendments thereto shall be circulated to all ambulance services for review and comment at least 60 days prior to adoption.

170.350: Serious Incident and Accident Reports

(A) Each licensed service shall file a written report with the Department within five days of the following incidents involving its service, personnel or property:

(1) fire affecting an EMS vehicle or service place of business;
(2) theft of an EMS vehicle;
(3) a motor vehicle crash involving an EMS vehicle reportable under M.G.L. c. 90, § 26 relating to the mandatory reporting of any crash involving a motor vehicle resulting in personal injury, death, or property damage. For the purpose of 105 CMR 170.350(A)(3), the written report shall be a copy of the approved Registry of Motor Vehicles' "Operator's Report of Motor Vehicle Accident," or in the case of a Class IV ambulance, a copy of the approved report form submitted to the FAA.

(B) Each licensed service shall file a written report with the Department within five days of other serious incidents involving its service, personnel or property, that result in serious injury to a patient not ordinarily expected as a result of the patient's condition. A serious injury is one that results in exacerbation, complication or other deterioration of a patient's condition. Such reportable incidents include, but are not limited to, the following:
(1) Medication errors resulting in serious injury;
(2) Failure to provide treatment in accordance with the Statewide Treatment Protocols resulting in serious injury; or
(3) Major medical or communications device failure, or other equipment failure or user error resulting in serious injury or delay in response or treatment.

(C) Each ambulance service shall file a written report with the Department within 72 hours of all instances in which its ambulance and its EMTs are delayed 30 minutes or longer from the time they arrive at an appropriate health care facility until they transfer patient care responsibility to facility personnel at an equal or higher level of training as the EMTs caring for the patient.

170.355: Responsibility to Dispatch, Treat and Transport
(A) No service, or agent thereof, including but not limited to its EMS personnel, shall refuse in the case of an emergency to dispatch an available EMS vehicle and to provide emergency response, assessment and treatment, within the service's regular operating area, in accordance with the Statewide Treatment Protocols, at the scene or during transport, or to transport a patient to an appropriate health care facility, in accordance with the applicable service zone plan.
(B) Primary Ambulance Response.
(1) Upon receipt of a call to respond to an emergency, the service zone's primary ambulance service, or a service operating pursuant to a service zone agreement, and the closest appropriate designated EFR service(s), if any, shall be immediately notified and dispatched in accordance with the applicable service zone plan and 105 CMR 170.510(I)(3)(f).
(2) When the primary ambulance service receives a call, it shall ensure that the closest ambulance is immediately dispatched in accordance with the service zone plan. If the primary ambulance service dispatcher believes at the time the call is received that an

ambulance is not available for immediate dispatch, or believes that another ambulance service has the capacity to reach the scene in a significantly shorter period of time, the dispatcher shall immediately contact the ambulance service with the closest ambulance, in accordance with the service zone plan.



(3) When an ambulance service with a provider contract providing primary ambulance response pursuant to a service zone agreement receives a call for primary ambulance response, if it believes at the time the call is received that it cannot meet the service zone standards for primary ambulance response, the ambulance service must immediately refer the call to the primary ambulance service, unless otherwise provided in the service zone plan.

(4) When an ambulance service other than the primary ambulance service receives a call to provide primary ambulance response that is not pursuant to a provider contract and a service zone agreement, it must immediately refer the call to the primary ambulance service.

(C) Prior to the approval of a service zone plan, and until no later than December 31, 2006:

(1) No service, or agent thereof, including but not limited to its EMS personnel, shall refuse in the case of an emergency to dispatch an available ambulance and to provide emergency response, assessment and treatment, within the service's regular operating area, in accordance with the Statewide Treatment Protocols, at the scene or during transport, or to transport a patient to an appropriate health care facility.

(2) Upon receipt of a call to respond to an emergency, the ambulance service shall immediately dispatch a Class I ambulance.

(3) If the ambulance service dispatcher believes at the time a call is received that a Class I ambulance is not available for immediate dispatch, the dispatcher shall immediately contact the ambulance service's backup service pursuant to 105 CMR 170.385. If the ambulance service dispatcher believes that another ambulance service has an ambulance that can reach the scene in a significantly shorter period of time, the dispatcher shall immediately notify:

(a) The other ambulance service, which shall immediately dispatch an ambulance, and

(b) Police or fire in the town in which the emergency has occurred.

(D) No later than December 31, 2006, or as soon as there is a Department-approved service zone plan, no ambulance service shall provide primary ambulance response in a service zone, unless:

(1) It is the designated primary ambulance service; or

(2) It is acting pursuant to a service zone agreement, in accordance with a Department-approved service zone plan and 105 CMR 170.249.

(E) Each service whose regular operating area includes all or part of the service zone in which a mass casualty incident occurs must immediately dispatch available EMS resources upon request by the primary ambulance service.

170.357: Point-of-Entry Plans

Each ambulance service shall ensure that its EMTs deliver patients in accordance with regional point-of-entry plans approved by the Department. No ambulance service shall develop a point-of-entry plan independent of a Department-approved regional point-of-entry plan.

170.360: Responsibility to Provide Appropriate Personnel During Transfer

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(A) No ambulance service or agent thereof shall transport a patient between health care facilities who is receiving medical treatment that is beyond the training and certification capabilities of the EMTs staffing the ambulance unless an additional health care professional with that capability accompanies the patient. For this purpose, medical treatment received by a patient includes, but is not limited to, intravenous therapy, medications, respirators, cardiac monitoring, advanced airway support, or other treatment or instrumentation.
(B) Exception: 105 CMR 170.360(A) shall not apply in the case of transport between buildings on the grounds of a health care facility.

170.365: Transport of a Deceased Person
An ambulance shall not be used to transport a dead body except in special circumstances where it is in the interest of public health and/or safety to do so. Each ambulance service shall develop policies in accordance with 105 CMR 170.000 and in accordance with accepted standards of medical practice.
170.370: Transport of a Person in a Wheelchair
Disabled persons in wheelchairs shall not be transported in an ambulance unless required by medical necessity. In each such instance the disabled person must be transferred to an ambulance cot and the trip record shall contain the nature of the person's illness or injury requiring transport by ambulance.
170.375: Dispatch Communications
Each service shall provide two-way radio communications between each of its EMS vehicles and a dispatcher.
170.380: Medical Communications
(A) Each ambulance service licensed to operate Class I, IV, and/or V ambulances and Class II ambulances, if they are used as backup for Class I ambulances, shall, at a minimum, provide for the relay of medical information through a dispatcher to appropriate health care facilities to which the ambulance service routinely transports patients.
(B) Each BLS ambulance service licensed to operate a Class I ambulance shall provide its Class I ambulances with equipment for direct two-way radio contact between its Class I ambulances and those appropriate health care facilities similarly equipped to which the ambulance routinely transports patients.

(C) Each service licensed at the ALS level must have adequate portable two-way radio communications equipment to utilize the system of medical direction, including a portable radio that can be transported to the scene of the emergency.
(D) All BLS and ALS services' communications and communications equipment must comply with the standards and requirements of the Massachusetts Emergency Medical Services Radio Communications Plan.

170.385: Service Availability and Backup

(A)(1) Each EFR service at the EMS first response and BLS levels shall ensure that the level of service for which it is licensed is available to the public within the service's regular operating area 24 hours a day, seven days a week, by providing the service's own personnel and EMS vehicles, or by written agreement(s) with other service(s).
(2) Each ambulance service licensed to operate and maintain Class I or IV ambulances shall ensure that BLS emergency ambulance service is available to the public within the service's regular operating area 24 hours a day, seven days a week, by providing the service's own personnel and ambulances, or by written agreement(s) with other service(s).
(3) Adequate backup for ambulance service shall consist of, at a minimum, both first and second backup as defined in 105 CMR 170.385(A)(3)(a) and (b), and shall meet any additional requirements of the applicable service zone plan. First and second backup vehicles shall be at least two separate ambulances.
(a) First Backup.
1. First backup for a Class I ambulance shall be either a Class I or II ambulance;
2. First backup for a Class IV air ambulance shall be another Class IV air ambulance, a Class I ambulance, or a Class II ambulance. (b) Second Backup.
1. Second backup for a Class I ambulance shall be either a Class I, II, or V ambulance.
2. Second backup for a Class IV air ambulance shall be either a Class IV, a Class I ambulance, a Class II ambulance, or a Class V ambulance.

(B) Exception: An ambulance service that responds only to calls from a unique population is exempt from the requirements of 105 CMR 170.385(A). However, the ambulance service shall provide service either with its own personnel and ambulance(s) or by written arrangements for adequate backup during the hours when the unique population it serves might require service.

(C)(1) Each service licensed to provide advanced life support service shall ensure that ALS service is available to the public within the service's regular operating area, in accordance with the applicable service zone plan, 24 hours a day, seven days a week, by providing the service's own personnel and EMS vehicles, or by written agreement(s) with other service(s).
(2) Adequate ALS backup for ambulance services shall consist of the following minimum requirements, and shall meet any additional requirements of the applicable service zone plan:
(a) For a Class I ambulance, a Class I or II ambulance, operated by an ALS licensed ambulance service staffed and equipped to provide ALS at a level of service equal to or greater than the ALS service being backed up;
(b) For a Class IV ambulance, another Class IV ambulance, a Class I ambulance or a

Class II ambulance operated by an ALS licensed ambulance service staffed and equipped to provide ALS at a level of service equal to or greater than the ALS service being backed up. (3) (a) Each service applying for an initial ALS license shall have three years from the date the ALS license is first issued, and each service already licensed at the ALS level as of February 28, 2001, shall have three years from that date, within which to meet the standards of ALS service delivery in 105 CMR 170.385(C)(1).

(b) Each ALS-Intermediate service applying for an upgrade in license to the ALS-

Paramedic level shall have three years from the date the ALS-Paramedic license is issued within which to meet the standards of 105 CMR 170.385(C)(1) as it applies to ALS- Paramedic service.
(c) In the interim period, each service included in 105 CMR 170.385(C)(2)(a) or (b) shall ensure that ALS service at the level of licensure for which it is applying is available to the public within its regular operating area at a minimum eight hours a day, seven days a week.
(4) Exceptions:
(a) An ambulance service that responds only to calls from a unique population is exempt from the requirements of 105 CMR 170.385(C)(1) and (2). However, the ambulance service shall provide service either with its own personnel and ambulance(s) or by written arrangements for adequate backup during the hours when the unique population it serves might require service.
(b) If no ALS ambulance service exists in an adjacent city or town, the ambulance service is exempt from the ALS backup requirements of 105 CMR 170.385(C)(1) and (2)

170.390: EMS Vehicle Readiness

Each service shall ensure that each of its EMS vehicles that are in current operation and needed to comply with the applicable service zone plan, are ready to respond to a call at any time. Each service shall ensure the following:
(A) Each EMS vehicle in current operation and needed to comply with the applicable service zone plan is housed in a secured, temperature-controlled garage owned or operated by the service, whenever the vehicle's expected time between calls would compromise vehicle performance and readiness or when its EMS personnel need facilities only available at a garage;
(B) EMS vehicles, their interior and all equipment, are kept clean and sanitary, in accordance with standards established in administrative requirements of the Department;

(C) EMS vehicles' temperature controls are functioning correctly, so that all drugs and equipment are maintained in conformance with manufacturers' recommendations and in proper condition for immediate use, and that the patient compartment is heated or cooled, depending on the season; and

(D) EMS vehicles are kept in a secured area, free of debris and hazards.

170.395: Storage Space

Adequate and clean enclosed storage space for linens, equipment and supplies shall be provided and accessible to EMTs at each place of business. These storage spaces shall be so constructed to ensure cleanliness of equipment and supplies and to permit thorough cleaning.

170.400: Supplies

An adequate amount of medical supplies, as described in the Department's administrative



requirements, and linen for stocking EMS vehicles shall be stored wherever EMS vehicles are garaged, unless a service obtains all medical supplies and linen from a hospital pursuant to a written agreement with the hospital.

170.405: Waivers for Special Projects

At the discretion of the Department, regulations established in this chapter may be waived for special projects which demonstrate innovative delivery of emergency medical care services. Proposals for special projects must be submitted to the Department in writing and no regulatory standards will be waived without explicit Department approval. Special projects will be considered experimental in nature and will be reviewed and renewed at such time periods as the Department shall establish.

170.410: General Requirements Regarding EMS Vehicles

Each service shall ensure that each EMS vehicle for which the service is licensed to operate is certified and conforms to the applicable standards set forth in 105 CMR 170.000. No EMS vehicle shall be operated or maintained except by a licensed service that meets the applicable requirements of 105 CMR 170.000.

(A) Ambulances. The Department shall, prior to certification, inspect the ambulance, equipment and supplies for conformance with the standards set forth in 105 CMR 170.000 and the Department's administrative requirements. Authorized personnel of the Department may inspect, at any time and without prior notice, any ambulance, equipment and supplies. For the purposes of 105 CMR 170.410(A), such inspection includes, but is not limited to, ambulances, equipment, supplies, the garage, records and files.

(B) EFR Vehicles. Each EFR service shall submit to the Department a written affirmation that its EFR vehicles, owned and operated by the EFR service, have passed safety inspection(s) as required by federal, state or local law. Prior to certification, the Department may inspect each vehicle's EMS equipment and supplies for conformance with the standards set forth in 105 CMR 170.000 and the Department's administrative requirements. Authorized personnel of the Department may inspect at any time and without prior notice, the EMS equipment and supplies in the vehicles, and audit EFR vehicle records and files, as well as other records and files as set forth in 105 CMR 170.225.

170.415: Certificate of Inspection Required

(A) No person shall operate, maintain, or otherwise use any aircraft, boat, motor vehicle, or any

other means of transportation as an EFR vehicle without a valid certificate of inspection.

(B) Exception. Uncertified vehicles may be used to render emergency medical transportation in the case of a major catastrophe when the number of certified ambulances capable of emergency dispatch in the locality of the catastrophe is insufficient to render the required emergency medical transportation services, pursuant to a statewide mass casualty incident plan.

170.420: Certification Procedure

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(A) To request a certificate of inspection, the applicant must complete and submit forms supplied by the Department, provided that a service license application has been filed.
(B) The applicable inspection fee established in 105 CMR 170.215(B) shall be submitted with a completed application form for certification.

170.425: Renewal of Certification

(A) Pursuant to M.G.L. c. 111C, §7, certification for each EMS vehicle shall terminate on the same date that the license for the service expires. Renewal applications shall be submitted to the Department no later than 60 days prior to the date of the expiration of the certificate. An applicant for renewal of a certificate of inspection shall follow the procedures set forth in 105 CMR 170.420. A renewal certificate shall not be issued if there are any outstanding assessments.
(B) If the applicant has applied for a renewal of a certificate of inspection and the Department is unable to inspect the vehicle, the current certificate of inspection shall remain in full force and effect until such time as the Department takes action on the renewal application, which shall ordinarily be within 30 days after the date the certificate expires.

170.430: Temporary Certification for EMS Vehicles

(A) Replacement Vehicle for Those Already Certified. To certify a replacement vehicle for one of its certified EMS vehicles, the licensee shall notify the Department and apply for a temporary certificate.
(1) The Department must receive notice within three business days of the date that the replacement EMS vehicle is put into operation.
(2) The licensee shall include a statement:
(a) describing the EMS vehicle (and for ambulances, indicating the class) for which the replacement is to be certified,
(b) attesting that the replacement EMS vehicle conforms to the applicable standards for that vehicle under 105 CMR 170.000; and
(c) describing the reasons for replacement.
(3) The Department may issue a temporary certificate of inspection for the EMS vehicle that the licensee describes in the statement. This temporary certificate shall expire on the date that the licensee receives the regular certificate of inspection or the denial of the certificate of inspection.
(a) The licensee shall return the temporary certificate of inspection to the Department immediately upon receipt of the regular certificate.
(b) If the regular certificate of inspection is for a class other than that of the replaced EMS vehicle, the service's license shall be modified to reflect the change, as provided in 105 CMR 170.240.
(4) If upon inspection, it is found that the temporary certificate of inspection was issued for a type or class whose requirements the EMS vehicle did not meet, the applicant may be liable for a fine of up to $1,000.00 under 105 CMR 170.790.

(B) Additional Vehicles to Those Already Certified. If the EMS vehicle is an addition to those authorized under the service license, the Department may issue a temporary certificate for 90



days upon application and compliance with all other applicable sections of 105 CMR 170.000.

170.435: Grounds for Denial, Suspension and Revocation of a Certificate of Inspection

(A) The Department may deny, suspend, revoke, or refuse to renew a certificate of inspection for the following grounds, including:

(1) Failure of an ambulance to comply with vehicle specifications for the appropriate class established in 105 CMR 170.000 and the Department's administrative requirements;

(2) Failure of an EFR vehicle to comply with the applicable requirements of 105 CMR 170.000 and the EFR service's written statement that it has met all safety and other vehicle inspection standards required by law;

(3) Failure to comply with the equipment requirements of 105 CMR 170.000 and the Department's administrative requirements;

(4) Failure to comply with a Department-approved plan of correction;

(5) Failure of a service to allow the Department to inspect, as provided for in 105 CMR 170.410; or

(6) Lack of sufficient certified and qualified EMS personnel to staff the EMS vehicle as required by 105 CMR 170.000 and the applicable service zone plan.

(B) The Department may refuse to issue or renew a certificate of inspection if the Department has initiated action to suspend or revoke the license of the service.

170.440: Safety Inspections

Each EMS vehicle shall be kept in good repair and operating condition, as demonstrated by, at a minimum, a valid inspection sticker from the appropriate registering agency for the type of vehicle. Periodic inspection of ambulances by the Department shall be in addition to other federal, state or local safety inspections required for the vehicle under law or ordinance. A violation of required safety inspections shall be a violation of 105 CMR 170.000.

170.445: Registration

Each EMS vehicle shall be registered with the appropriate registering agency for the type of vehicle.

170.450: All Ambulances Subject to Classification

All ambulances shall conform to the minimum standards of one of the classes set out in 105 CMR 170.455, .460, .465 and .470, and shall be certified accordingly as provided in 105 CMR 170.415 and .420. There are three classes of ground ambulances (Class I, II and V), and one class of air ambulance (Class IV).

170.455: Class I

A Class I ambulance shall be used primarily for emergency dispatch to and transport of sick and injured persons from the scene of an emergency. A Class I ambulance may also be used for scheduled transportation by prior appointment of persons having known and non-emergent medical condition. It shall meet the following minimum requirements:

(A) Vehicle Design and Construction.
(1) An ambulance service may only purchase, accept, or put into operation a Class I vehicle which conforms with the United States Department of Transportation General Services Administration, Ambulance Design Criteria and Construction Specifications (KKK-A-1822E) which are in effect at the date of vehicle production. In the case of municipal services, standards are those in effect at the date of acceptance of a manufacturer's bid. (2) The Commissioner or his designee may waive specific requirements included in the federal specifications referenced in 105 CMR 170.455(A)(1) where alternatives provide comparable protection of the public health and safety. Requests for waivers or variations must be filed and approved by the Department before the bid or order process is undertaken. Such requests for waiver or variations are not subject to the general waiver requirement set forth in 105 CMR 170.275.

(B) Vehicle Equipment. A Class I ambulance shall be equipped at a minimum with the vehicle equipment specified in the administrative requirements entitled "Vehicle Equipment Guidelines - Class I." Amendments to such administrative requirements shall be circulated to licensees for review and comment at least 60 days prior to adoption.

(C) Medical Equipment and Supplies. A Class I ambulance shall be equipped at a minimum with medical equipment and supplies as specified in the administrative requirements entitled "Medical Equipment and Supplies - Class I." Amendments to such administrative requirements shall be circulated to licensees for review and comment at least 60 days prior to adoption.

(D) Equipment to Gain Access to Patient. A Class I ambulance shall carry at a minimum the equipment to gain access as specified in the administrative requirements entitled "Equipment to Gain Access - Class I." Amendments to such administrative requirements shall be circulated to licensees for review and comment at least 60 days prior to adoption.

170.460: Class II
A Class II ambulance shall be used for scheduled transportation by prior appointment of persons having known and non-emergent medical conditions. In addition it may be used as a backup ambulance in emergency situations when a Class I ambulance is not available. It shall meet the following minimum requirements:
(A) Vehicle Design and Construction.
(1) A Class II vehicle shall meet or exceed the United States Department of Transportation General Services Administration, Ambulance Design Criteria and Construction Specifications KKK-A-1822E. In the case of municipal services, standards are those in effect at the date of acceptance of a manufacturer's bid.

(2) The Commissioner or his designee may waive specific requirements included in the federal specifications referenced in 105 CMR 170.460(A)(1) where alternatives provide comparable protection of the public health and safety. Requests for waivers of variations must be filed and approved by the Department before the bid or order process is undertaken. Such requests for waiver or variation are not subject to the general waiver requirement set forth in 105 CMR 170.275.



(B) Vehicle Equipment. A Class II ambulance shall be equipped at a minimum with the vehicle equipment specified in the administrative requirements entitled "Vehicle Equipment Guidelines - Class II." Amendments to such administrative requirements shall be circulated to licensees for review and comment at least 60 days prior to adoption.

(C) Medical Equipment and Supplies. A Class II ambulance shall be equipped at a minimum with medical equipment and supplies as specified in the administrative requirements entitled "Medical Equipment and Supplies - Class II." Amendments to such administrative requirements shall be circulated to licensees for review and comment at least 60 days prior to adoption.

(D) Class II ambulances shall not be dispatched to the scene of an emergency, except as a backup when a Class I ambulance is demonstrably unavailable, according to the provisions of 105 CMR 170.385.

170.465: Class IV

A Class IV air ambulance is an aircraft used to provide safe air transportation of sick or injured persons. A Class IV air ambulance shall meet the following minimum requirements:

(A) Aircraft Design and Construction.

(1) The aircraft shall conform to all applicable Federal Aviation Administration standards.

(2) The aircraft shall be capable of carrying a patient(s), on a stretcher, in a horizontal position. The stretcher shall be firmly secured with quick-release fasteners.

(3) The patient(s) cabin area shall provide a minimum of 30 inches of clear space over the torso half of the stretcher, measured along the centerline of stretcher.

(4) The patient(s) cabin area shall provide sufficient room for an EMT to care for a patient(s). At a minimum, the EMT shall have free access to the torso half of the stretcher.

(5) The aircraft door(s) must be of sufficient size as to allow for easy loading of a stretcher(s) in a horizontal or any elevated position.

(6) The aircraft cabin must be of sufficient size to allow for effective use of medical equipment. All life support equipment and supplies must be easily available to the EMT from within the cabin.

(B) Medical Equipment and Supplies. A Class IV air ambulance shall be equipped at a minimum with medical equipment and supplies as specified in the administrative requirements entitled "Medical Equipment and Supplies - Class IV." Amendments to such administrative requirements shall be circulated to licensees for review and comment at least 60 days prior to adoption.

170.470: Class V

A Class V ambulance is a vehicle that does not meet the minimum vehicle design and construction standards of any other class of ambulance, but which may be used to carry a patient in the horizontal position, with sufficient room for an EMT to accompany the patient in the patient compartment. A Class V ambulance may be dispatched to the scene of an emergency to bring trained personnel and appropriate equipment and supplies. It shall meet the following

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minimum requirements:
(A) Vehicle Equipment. A Class V ambulance shall be equipped at a minimum with the vehicle equipment specified in the administrative requirements entitled "Vehicle Equipment Guidelines - Class V." Amendments to such administrative requirements shall be circulated to licensees for review and comment at least 60 days prior to adoption.

(B) Medical Equipment and Supplies. A Class V ambulance shall be equipped at a minimum with medical equipment and supplies as specified in the administrative guidelines entitled "Medical Equipment and Supplies - Class V." Amendments to such administrative requirements shall be circulated to licensees for review and comment at least 60 days prior to adoption.

(C) A Class V ambulance shall not be used to transport a patient to a hospital or other appropriate health care facility except as a backup ambulance when the Class I ambulance and its first back-up, as set forth in 105 CMR 170.385, are demonstrably unavailable.

(D) A service licensed to operate and maintain a Class V ambulance, must also be licensed to operate and maintain a Class I ambulance, or provide evidence of a written cooperative arrangement by which a Class I ambulance, and its first backup as required in 105 CMR 170.385, are readily available to provide emergency medical transportation in the regular operating area of the service.

170.475: ALS Ambulances

Only certified Class I and Class IV ambulances shall be used for transport of patients receiving ALS care, except that a certified Class II or Class V ambulance may be used as a backup ambulance according to pre-arranged agreement, if the vehicle meets all other ALS requirements contained herein and is in accordance with 105 CMR 170.470(C).

170.480: Equipment and Supplies

(A) All EMS vehicles shall be equipped and staffed to provide care at the level of service for which the EMS vehicle is put into service, in accordance with the Statewide Treatment Protocols and the applicable service zone plan. When responding to a call, each EMS vehicle shall carry the equipment and supplies required by the Department's administrative requirements for its type or classification.
(B) All equipment on EMS vehicles shall be maintained in good working order at all times, in accordance with the manufacturer's recommendations and/or specifications.

170.485: Display of Certificate of Inspection

Each ambulance service shall display the Department-issued certificate of inspection in

the ambulance for which it was issued, in a manner so that the certificate is readily visible to any person in the patient compartment of the ambulance.

170.490: Ambulance Identification



(A) All ambulance services shall comply with the requirements for vehicle markings, emblems, and warning devices in the United States Department of Transportation General Services Administration, Ambulance Design and Construction Specifications (KKK-A-1822E) with regard to their Class I and Class II ambulances.

(B) Each certified ambulance shall be equipped with emergency warning lights and audible warning devices as provided for in the class for which the vehicle is certified.

(C) The use of emergency warning lights and/or audible warning devices is permitted only as needed when an ambulance is on a call for the purpose of an emergency transport of a sick or injured person or at the scene or en route to the scene of an emergency.

(D) Each certified and temporarily certified Class I or Class II ambulance shall have the name under which the ambulance service is licensed prominently lettered on the back and sides of the vehicle.

(E) No ambulance may display any words, markings or lettering which indicate or represent a special care ambulance, unless the use of each such identifier has been approved by the Department.

170.500: Service Zone Plans

(A) Pursuant to M.G.L. c. 111C, §10, each local jurisdiction shall be covered by a service zone plan approved by the Department that:
(1) identifies and makes optimal use of all available EMS resources;
(2) sets out how emergency response is coordinated and carried out; and
(3) ensures the dispatch and response of the closest, appropriate, available EMS resources.

(B) Service zone plans shall be developed by the local jurisdiction(s), with technical assistance, review and recommendation for approval by the applicable Regional EMS Council. The local jurisdiction(s) shall develop the service zone plan with input from the following, at a minimum:
(1) first responder agencies operating in the service zone, including municipal fire and rescue departments;
(2) emergency first response (EFR) services operating in the service zone;
(3) all ambulance services providing primary ambulance response pursuant to provider

contracts in the service zone;
(4) all other ambulance services operating in the service zone; and
(5) the health care facilities, including nursing homes, that appear in the service zone inventory pursuant to 105 CMR 170.510(A)(5).

(C) A service zone plan may cover a single local jurisdiction or multiple local jurisdictions. If a plan covers more than one local jurisdiction, it must be approved by each of the local jurisdictions covered by the plan. If a service zone plan covers local jurisdictions in more than one EMS region, it must be reviewed by each of the applicable Regional EMS Councils.

170.510: Elements of the Service Zone Plan

Local jurisdictions shall ensure that each service zone plan contains, at a minimum, the following elements:

(A) A current inventory of EMS and public safety providers and resources, including but not limited to:
(1) the designated primary ambulance service;
(2) ambulance services that have service zone agreements with the designated primary ambulance service for primary ambulance response in the service zone, in accordance with 105 CMR 170.249;
(3) all other ambulance services whose regular operating area includes in whole or in part any local jurisdiction in the service zone;
(4) designated EFR service(s), if any;
(5) health care facilities, including nursing homes;
(6) first response agencies and locations of trained first responders;
(7) others in the community trained to provide emergency response, such as ski patrols, and EMTs at schools or senior citizens' centers;
(8) emergency medical dispatch and public safety answering point (PSAP), and (9) automatic/semi-automatic defibrillators and their locations.

(B) An open, fair and inclusive process for the selection and changing of EMS service delivery or designated service zone providers.

(C) Criteria for the selection of designated service zone providers. Potential service zone providers shall be evaluated on their ability to meet local standards for specific EMS performance criteria. Local standards shall at minimum meet any and all relevant standards in 105 CMR 170.000. Specific EMS performance criteria include, but are not limited to, the following:
(1) response time;
(2) adequate backup;
(3) deployment of resources;
(4) level of service and level of licensure of designated service zone providers;
(5) medical control; and
(6) appropriate health care facility destinations, in accordance with the applicable Regional EMS Council's point-of-entry plan, as approved by the Department.

(D) Recommended service zone providers, chosen in accordance with the process and criteria established in the service zone plan, pursuant to 105 CMR 170.510(B) and (C). The local jurisdiction shall recommend for designation one primary ambulance service, and may recommend one or more EMS first response services as service zone providers.

(E) Service zone agreements, pursuant to M.G.L. c. 111C, §10(d) and 105 CMR 170.249.

(F) A process for monitoring compliance with the service zone's local standards for specific EMS performance criteria.

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(G) A medical control plan, which shall at a minimum, consist of collection, review and monitoring of current affiliation agreements, consistent with 105 CMR 170.300, of EMS services operating in the service zone.

(H) Operational plan for coordinating the use of all first responder agencies in the service zone that are not EMS first response services, and others trained as first responders and voluntarily providing first response services, including the location of each of these agencies and persons.

(I) Operational plan for ensuring dispatch and response to emergencies of the closest, appropriate, available EMS services, in accordance with 105 CMR 170.355, including:
(1) Coordination and optimal use of all licensed services for emergency response, including the following:
(a) primary ambulance service;
(b) ambulance services with service zone agreements with the primary ambulance service, pursuant to 105 CMR 170.249;
(c) ambulance services who have backup agreements with services referenced in 105 CMR 170.510(I)(1)(a) and (b); and
(d) EFR services, if any.
(2) Location of all licensed EMS services; and
(3) Clear criteria for determining which ambulance service has the closest appropriate ambulance, and when EFR services, if any, should be dispatched, based on factors including, but not limited to, the following:
(a) type of emergency or patient condition;
(b) base locations of services;
(c) hours of operation;
(d) number, hours and location of EMS personnel, and (e) services' capabilities.
(f) No service zone plan may include criteria for the notification and dispatch of a designated EFR service to a facility licensed pursuant to M.G.L. c. 111, § 71 or certified pursuant to M.G.L. c. 19D, where there is a licensed health care professional on site 24 hours per day seven days per week, and where there is a

provider contract in place to provide primary ambulance response, unless a
licensed health care professional at such facility requests primary ambulance response by dialing the emergency telephone access number 911, or its local equivalent. Nothing herein shall bar any person from dialing 911 or its local equivalent.

(J) Procedures for delivery of trip records and unprotected exposure forms to receiving health care facilities.

170.520: The Regional Service Zone Plan

Each Regional EMS Council shall adopt a regional service zone plan, subject to the approval of the Department, which includes:

(A) A compilation of the service zone plans covering all the local jurisdictions in the region; and

(B) Regional plans for the following:
(1) point-of-entry;
(2) accessing specialty services, such as air ambulance services; and (3) responding to special situations, such as mass casualty incidents.

170.530: Review and Approval of Service Zone Plans

(A) Regional EMS Council Review. Local jurisdictions shall submit service zone plans to their Regional EMS Council. By December 31, 2006, each local jurisdiction must be covered by a service zone plan approved in accordance with 105 CMR 170.530.
(1) The Regional EMS Council shall review each service zone plan. The Council shall verify that all elements of 105 CMR 170.510 are addressed, and all local EMS and public safety resources are identified and optimally used in the operational plans. If the service zone plan meets these criteria, the Regional EMS Council shall recommend approval of the plan to the Department.
(2) If the Regional EMS Council finds that a service zone plan has not adequately addressed all elements of 105 CMR 170.510, it shall return the plan to the local jurisdiction(s) with a letter identifying the deficiencies and notify the Department. The Council shall provide technical assistance to the local jurisdiction(s), as needed. After the plan's revision, if the Regional EMS Council finds the service zone plan continues to be deficient, the Council shall recommend to the Department that the plan be denied.
(3) Within six months of the submission of a service zone plan to a Regional EMS Council, the Council shall forward its recommendation regarding that plan to the Department.

(B) Department Review and Approval. The Department shall review all local service zone plans submitted by the Regional EMS Councils. The Department shall assess each service zone plan in accordance with the elements of 105 CMR 170.510. The Department shall have ultimate authority to approve a service zone plan. It shall issue its decision to the local jurisdiction and the appropriate Regional EMS Council within six months of the plan's submission to the Department.

170.540: Grounds for Denial of Approval of a Service Zone Plan

(A) The Department may deny approval of a service zone plan if:
(1) the applicant fails to meet each of the elements of 105 CMR 170.510; or
(2) the applicant submits inaccurate or incomplete information to obtain service zone plan approval or designation of a service zone provider.

(B) A local jurisdiction(s) may appeal the Department's denial of approval of a service zone plan, in accordance with 105 CMR 170.760.

170.550: Update of Service Zone Plans and Redesignation of Providers

(A)(1) Each local jurisdiction shall promptly report to the its Regional EMS Council any changes


to its approved service zone plan.
(2) Regional EMS Councils shall ensure that local service zone plans are updated, so that regional service zone plans are updated accordingly.
(3) Regional EMS Councils shall regularly report updates in local and regional service zone plans to the Department.

(B) The local jurisdiction(s) covered by an approved service zone plan shall carry out the plan's selection process for service provider and service delivery changes, at a minimum, when:
(1) the local jurisdiction(s) propose(s) to change a designated service provider;
(2) the local jurisdiction(s) propose(s) an upgrade in level of service that a service zone provider is unable to provide;
(3) the local jurisdiction(s) propose(s) a downgrade in the level of services; or
(4) a designated service zone provider informs the local jurisdiction(s) of its intention to make changes to its delivery of services so that it no longer conforms to the requirements of the approved service zone plan.

(C) Each time a service zone begins a selection process, it shall notify its Regional EMS Council and the Department.

170.560: Grounds for Revocation of Service Zone Approval

(A) The Department may revoke the approval for a local jurisdiction(s)'s service zone plan for:
(1) Failure to adhere to the approved service zone plan;
(2) Failure to carry out its selection process for EMS service delivery and service zone provider designation changes, pursuant to 105 CMR 170.550;
(3) Knowingly making an omission of a material fact or false statement orally or in any application or document filed with or obtained by the Department or Regional EMS Council;
(4) Violation of a correction order; or
(5) Failure to comply with a plan of correction.

(B) A local jurisdiction(s) covered by a service zone plan may appeal the Department's revocation of approval for its service zone plan, in accordance with 105 CMR 170.760.

(C) If approval of a service zone plan is revoked, the Department may designate an interim service zone provider(s) under a temporary service zone plan to ensure continuation of EMS services. An interim plan will remain in effect until the local jurisdiction(s)' subsequent service zone plan is approved.

170.705: Deficiencies

(A) A deficiency means non-compliance with regulations established herein for any person certified, licensed, designated or otherwise approved by the Department pursuant to M.G.L. c. 111C. The Department may find that a deficiency exists upon inspection or other information, such as information that may come through the complaint procedure, as set forth in 105 CMR 170.795.

(B) A deficiency may result in the following:
(1) an advisory letter, a letter of clinical deficiency, a statement of serious deficiency or a letter of reprimand;
(2) a correction order as set forth in 105 CMR 170.720; (3) an assessment as provided in 105 CMR 170.730; or
(4) a denial, suspension, revocation or refusal to renew a license, certification, certificate of inspection, designation or other approval.

170.710: Plan of Correction

(A) The Department may require any person certified, licensed, designated or otherwise approved by the Department pursuant to M.G.L. c. 111C to submit a written plan of correction for each existing deficiency.

(B) The person shall specify in the plan of correction the manner in which the correction shall be made and the date by which the deficiency shall be corrected.

(C) The plan of correction must be submitted to the Department no later than ten days after written notice of deficiencies and request by the Department for submission of a plan. The person or his/her agent may be required to submit a plan of correction immediately at the completion of the inspection if deficiencies are found upon inspection which threaten health and safety.

(D) The Department shall attempt to approve or deny the plan of correction within ten days of receipt of the plan. Failure to respond to a submitted plan of correction shall not be deemed to be an acceptance of the plan of correction.

(E) Failure to submit an acceptable and timely plan of correction or failure to correct in accordance with the plan are grounds for enforcement action including suspension or revocation of a license, certification, certificate of inspection, designation or other form of approval.

170.720: Correction Orders

The Department may order any person certified, licensed, designated or otherwise approved by the Department pursuant to M.G.L. c. 111C, to correct a deficiency by issuing a correction order. Pursuant to M.G.L. c. 111C, §15, each correction order shall contain the following:

(A) A description of the deficiency or deficiencies;

(B) The period within which the deficiency must be corrected, which shall be reasonable under the circumstances. In the case of a deficiency that endangers the public health or safety, which is identified in the course of an inspection or investigation, the Department or its agent may suspend a certificate, license, designation or other form of approval effective immediately, provided that the person affected shall be promptly afforded an opportunity for a hearing pursuant to M.G.L. c. 111C, §16;



(C) The provisions of the law and regulations relied on in citing the deficiency.
(1) With respect to orders other than immediate suspensions, within seven days of receipt of the correction order, the affected person may file a written request with the Department for administrative reconsideration of the order or any portion thereof. Such request shall contain sufficient information to allow the Department to adequately reconsider the issuance of the order. Failure of the Department to act upon the written request within seven days of the filing of the request shall be deemed a denial of the request.
(2) If the Department makes a finding in writing that the person has made a good faith effort to correct the deficiency within the period prescribed for correction and that the correction cannot be completed by the prescribed date, the Department may permit the person to file a plan of correction on a form provided by the Department.
(3) In the event that a plan of correction is not approved by the Department, the Department shall set another date by which the correction shall be made. If the correction is not made by that date, then the Department may follow the procedure for assessment of a deficiency set forth in 105 CMR 170.730.

170.730: Assessment for a Deficiency

Pursuant to M.G.L. c. 111C, §15, the Department may assess a person ordered to correct deficiencies, $500.00 per deficiency for each day the deficiency continues to exist beyond the date prescribed for correction in the correction order, as set forth in 105 CMR 170.720 or in such further extension as may be granted, as provided in 105 CMR 170.720(C)(2).

(A) Notice and Opportunity for a Hearing. Pursuant to M.G.L. c. 111C, §15(b), before making an assessment, the Department shall give the affected person notice of the assessment. The notice shall contain a description of the deficiency, the period for correction, and provision of the law and regulations relied upon. The affected person may file with the Department within 14 days of receipt of notice a written request for an adjudicatory hearing.

(B) Payment of the Assessment. If, after hearing, or waiver thereof, the Department determines that it is appropriate to make an assessment, then, in accordance with M.G.L. c. 111C, §15(c),

the assessment shall be due and payable to the Commonwealth on the 30th day after notification to the affected person.

(C) Further Enforcement Procedures. By levying an assessment, the Department does not waive its right to invoke other enforcement procedures, such as modification of a license, as provided in 105 CMR 170.240, suspension of a license, certification or certificate of inspection, as provided in 105 CMR 170.750, or revocation or refusal to renew a license, certification or certificate of inspection, as provided in 105 CMR 170.760.

170.740: Denial

(A) If a license, certification, certificate of inspection, designation or other form of approval is denied on the basis of disputed facts, then the denied applicant may request in writing an adjudicatory hearing within 14 days of notice of denial, provided that the applicant submits written evidence which the applicant would offer at a hearing sufficient to support the applicant's
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factual allegations.

(B) If a license, certification, certificate of inspection, designation or other form of approval is denied by the Department on the basis of facts over which there is no material dispute, then the applicant shall be notified in writing of the reasons for the denial. Any applicant aggrieved by the denial on the basis of undisputed facts is not entitled to an adjudicatory hearing but may seek judicial review under M.G.L. c. 30A, § 14.

170.750: Suspension

(A) Pursuant to M.G.L. c. 111C, §16, the Commissioner may, without a hearing, if the Commissioner finds that public health or safety is endangered, suspend a license, certification, certificate of inspection, designation or other form of approval. Written notice of the reasons for the suspension shall promptly be issued by the Department. The affected person shall also be notified in writing of the right to an adjudicatory hearing and shall be promptly afforded an opportunity for a hearing provided that written request for a hearing is submitted within 14 days after notification of suspension.

(B) After hearing or waiver thereof, the Department may modify a license, certification, certificate of inspection, designation or other form of approval, or suspend, revoke or refuse to renew a license, certification, certificate of inspection, designation or other form of approval.

(C) Upon receipt of notice of the Department's final decision, the affected person must immediately return for the term of the suspension any license, certification, certificate of inspection, designation or other form of approval previously issued.

170.760: Revocation or Refusal to Renew

(A) If the Department initiates action to revoke or refuse to renew a license, certification, certificate of inspection, designation or other form of approval, the affected person shall be notified in writing of the reasons for the Department's action and of his/her right to an adjudicatory proceeding.

(B) Written request for a hearing must be submitted within 14 days of receipt of notification of Department action.

(C) After hearing or waiver thereof, the Department may modify a license, certification,

certificate of inspection, designation or other form of approval, revoke or refuse to renew a license, certification, certificate of inspection or other form of approval.

(D) Upon receipt of notice of the Department's final decision, the affected person must immediately return to the Department any license, certification, certificate of inspection, designation or other form of approval previously issued.

170.770: Adjudicatory Proceedings



(A) All adjudicatory proceedings will be conducted in accordance with M.G.L. c. 30A and the Standard Rules of Practice and Procedure, 801 CMR 1.01 *et seq.*

(B) The Commissioner shall designate a Presiding Officer to conduct a hearing and render a tentative decision, containing findings of fact and rulings of law. If the Presiding Officer finds any single ground for denial, revocation, suspension, or refusal to renew any license, certification, certificate of inspection, designation or other form of approval, the Presiding Officer shall render a decision affirming the action initiated by the Department.

170.780: Nonexclusivity of Enforcement Procedures

None of the enforcement procedures contained in 105 CMR 170.000 are mutually exclusive. With the exception of an assessment, as provided in 105 CMR 170.730, which shall be preceded by a correction order, as provided in 105 CMR 170.720, any enforcement procedures may be invoked simultaneously if the situation so requires.

170.790: Criminal Enforcement Provisions

The Department may elect to enforce any section of 105 CMR 170.000 or provisions of M.G.L. c.111C by seeking to have criminal sanctions imposed. M.G.L. c. 111C, § 19 provides that no person shall:

(A) Establish, maintain or hold itself out as a service without a valid license or in violation of the terms of a valid license;

(B) Operate, maintain, otherwise use, or hold out any aircraft, boat, motor vehicle, or other means of transportation as an EMS vehicle without a valid certificate of inspection;

(C) Provide EMS or hold oneself out as, or use the title of emergency medical technician, paramedic or the acronym EMT, or EMS first responder, or any other title or acronym used by the Department in the certification of EMS personnel in violation of M.G.L. c. 111C, § 9;

(D) Establish or maintain a trauma center, a service zone provider or any other entity, service or operation requiring designation or approval of the Department pursuant to M.G.L. c. 111C and 105 CMR 170.000, or hold itself out as such, without such valid designation or approval;

(E) Obstruct, bar, or otherwise interfere with an inspection or investigation undertaken under authority of M.G.L. c. 111C or 105 CMR 170.000;

(F) Knowingly make an omission of a material fact or a false statement, orally or in any application or other document filed with or obtained by the Department or any other entity in the EMS system; or

(G) Violate or fail to observe any requirements of 105 CMR 170.000, or of any rule, regulation, administrative requirement, protocol or order under M.G.L. c. 111C or 105 CMR 170.000;

(H) Whoever engages in, aids, abets, causes, or permits any act prohibited under M.G.L. c. 111C, §19 or 105 CMR 170.790 shall be punished by a fine of not less than $100.00 and not more than $1,000.00 for each offense. A separate and distinct offense shall be deemed to have been committed on each day during which any prohibited act continues after written notice by the Department to the offender. The Commissioner shall report each suspected offense to the Attorney General for investigation and, if appropriate, prosecution in the courts of the Commonwealth.

170.795: Complaints

As interest requires, the Department shall investigate every complaint received, including but not limited to reports received pursuant to 105 CMR 130.1503(A)(3) or 105 CMR 170.350, about practices or acts which may violate M.G.L. c. 111C or any provision of 105 CMR 170.000.

(A) If the Department finds that an investigation is not required because the alleged act or practice is not in violation of M.G.L. c. 111C or 105 CMR 170.000 or any administrative requirement, protocol or order of the Department pursuant thereto, the Department shall notify the complainant of this finding and the reasons on which it is based.

(B) If the Department finds that an investigation is required, because the alleged act or practice may be in violation of M.G.L. c. 111C or 105 CMR 170.000 or any administrative requirements, protocol or order of the Department pursuant thereto, the Department shall investigate. If a finding is made that the act or practice does constitute such a violation, the Department shall apply whichever enforcement procedure(s), as provided in 105 CMR 170.705 through 170.795, is appropriate to remedy the situation and the Department shall notify the complainant of its action in this matter.

(C) Investigation of complaints may lead to enforcement actions, including an advisory letter, a letter of clinical deficiency or a letter of reprimand; a correction order, as set forth in 105 CMR 170.720; an assessment, as provided in 105 CMR 170.730; or a revocation, suspension or refusal to renew a license, certification, certificate of inspection, designation or other form of approval, or a modification of a license by the Department. The Department may specify in any such enforcement action taken against an EMT or EFR a requirement to undergo and successfully complete remedial training, in accordance with terms set out in the enforcement action.

170.800: EMS Personnel: General Provisions

(A) There shall be four levels of function and training for EMS personnel: EFR, EMT-Basic, EMT-Intermediate and EMT-Paramedic.

(B) No certified EMT or EFR may perform functions for which the individual is not properly trained and certified, except:
(1) pursuant to and in accordance with the requirements of a waiver for a special project as set forth in 105 CMR 170.405, or
(2) an EMT-Paramedic serving on a critical care medical crew of a service licensed at the critical care level, operating in compliance with the service's clinical practice protocols and

standing orders that meet CAMTS or Department-approved substantially equivalent accreditation standards. However, when working with an EMS service that is not licensed at the critical care level, the EMT-Paramedic shall perform and function in accordance with 105 CMR 170.800(C).

(C) EMS personnel working in connection with a licensed service shall provide care in conformance with the Statewide Treatment Protocols, where relevant, and only up to the level of the license of that service.
(D) EMS personnel shall operate in accordance with M.G.L. c. 111C, 105 CMR 170.000, all other applicable laws and regulations, administrative requirements of the Department, and their service's established policies and procedures that are consistent with 105 CMR 170.000.

170.805: EMS First Responder

(A) The functions of an EFR shall include:
(1) first aid;
(2) cardiopulmonary resuscitation, including use of automatic/semi-automatic defibrillation; and
(3) other intervention(s) approved by the Department.

(B) EFRs shall provide the functions described in 105 CMR 170.805(A) in conformance with Department-approved training.

(C) The minimum training requirement for certification as an EFR includes:
(1) successful completion of the training required by 105 CMR 171.000;
(2) Department-approved training in utilization of automatic/semi-automatic defibrillation and other intervention(s) for EFRs approved by the Department;
(3) within each three-year term of certification, successful completion of a Department-approved EFR refresher course; and
(4) any other training designated by the Department in administrative requirements.

170.810: Emergency Medical Technician - Basic

(A) The functions of an EMT-Basic include:
(1) Provision of basic emergency medical care for patients at the scene and/or while in transit in an ambulance;
(2) Operation of Class I, II, and V ambulances; and
(3) Other duties as consistent with level of training and certification.

(B) The minimum training requirement for certification as an EMT-Basic is successful

completion of Department-approved EMT-Basic initial training, or successful completion of Department-approved equivalent training.

(C) The supplemental training requirements of a certified EMT-Basic are as follows:
(1) Successful completion of a course meeting, at a minimum, the standards established by the Committee on Cardiopulmonary Resuscitation and Emergency Cardiac Care of the

American Heart Association, as documented by a current training card, renewed biennially, in Basic Cardiac Life Support health care professional cardiopulmonary resuscitation, including utilization of automatic/semi-automatic defibrillation; and
(2) Within the two-year term of the certification:
(a) Successful completion of Department-approved EMT-Basic refresher training; and (b) Successful completion of 28 additional hours of Department-approved continuing education. The Department shall establish standards for continuing education in administrative requirements.

(D) An EMT-Basic may administer those controlled substances in Schedule VI that are approved by the Department for administration by an EMT-Basic provided that:
(1) The administration is consistent with and provided for in the Statewide Treatment Protocols;
(2) The administration is in accordance with 105 CMR 700.003(D);
(3) The EMT is performing patient care duties;
(4) The EMT has completed Department-approved training for the administration of such controlled substance(s) and administers only those controlled substances for which he or she is trained;
(5) The ambulance or EFR service, or first responder agency that employs the EMT maintains a current memorandum of agreement with a hospital that addresses, at a minimum, quality assurance or as specifically required in 105 CMR 170.330(C); and
(6) The EFR service or first responder agency that employs the EMT maintains an agreement with the transporting ambulance service(s) to ensure continuity of pre-hospital care.

170.820: Emergency Medical Technician - Intermediate

(A) The functions of an EMT-Intermediate include:
(1) The functions of an EMT-Basic as set forth in 105 CMR 170.810; and
(2) The provision of limited advanced life support related to airway and circulatory maintenance in accordance with the Statewide Treatment Protocols.

(B) The minimum training requirements for certification as an EMT-Intermediate are as follows:
(1) Successful completion of the requirements for training as an EMT-Basic; and
(2) Successful completion of Department-approved EMT-Intermediate initial training, or successful completion of Department-approved equivalent training.

(C) The supplemental training requirements of a certified EMT-Intermediate are as follows:
(1) Conformance with the requirements of 105 CMR 170.810(C)(1); and
(2) Within the two-year term of certification:

(a) Successful completion of Department-approved EMT-Intermediate refresher training or successful completion of a Department-approved written examination; and
(b) Successful completion of 28 additional hours of Department-approved continuing education. The Department shall establish standards for continuing education in administrative requirements.

(D) An EMT-Intermediate may initiate Advanced Life Support activities after contact with and direction by a physician, as provided in 105 CMR 170.300(A)(8) and (C). In the case of a patient with a clear need for immediate treatment an EMT-Intermediate may initiate advanced treatments prior to contacting the medical direction physician, in accordance with the Statewide Treatment Protocols.

170.840: Emergency Medical Technician - Paramedic

(A) The functions of an EMT-Paramedic include:
(1) The functions of an EMT-Intermediate as set forth in 105 CMR 170.820; and
(2) The provision of advanced life support related to treatment of cardiac or respiratory arrest, poisoning, overdose, or other major trauma or illness, in accordance with the Statewide Treatment Protocols.

(B) The minimum training requirements for certification as an EMT-Paramedic are as follows:
(1) Successful completion of the requirements for training as an EMT-Basic or EMT-Intermediate; and
(2) Successful completion of Department-approved EMT-Paramedic initial training, or successful completion of Department-approved equivalent training.
(3) Successful completion of a course meeting, at a minimum, the standard established by the Committee on Cardiopulmonary Resuscitation and Emergency Cardiac Care of the American Heart Association, as documented by a current training card in Advanced Cardiac Life Support cardiopulmonary resuscitation.

(C) The supplemental training requirements of a certified EMT-Paramedic are as follows:
(1) Conformance with the requirements of 105 CMR 170.810(C)(1) and 170.840(B)(3), as documented by a current training card for each course, both renewed biennially; and
(2) Within the two-year term of certification:
(a) Successful completion of Department-approved EMT-Paramedic refresher training, or successful completion of a Department-approved written examination; and,
(b) Successful completion of 25 additional hours of Department-approved continuing education. The Department shall establish standards for continuing education in administrative requirements.

(D) An EMT-Paramedic may initiate Advanced Life Support activities after contact with and direction by a physician, as provided in 105 CMR 170.300(A)(8) and (C). In the case of a patient with a clear need for immediate treatment, an EMT-Paramedic may initiate advanced treatments

prior to contacting the medical direction physician, in accordance with the Statewide Treatment Protocols.

170.850: Student Emergency Medical Technician

A person, duly enrolled in a Department-approved Emergency Medical Technician training program, may function as an EMT at the level for which he or she is being trained under the following restrictions:

(A) Any and all patient contact by the student is directly supervised and evaluated by an on-site health care professional authorized to do so by the Department-accredited training institution offering the initial training program, and is in compliance with 105 CMR 170.000 and the Department's administrative requirements.

(B) The student shall have successfully completed any and all non-clinical training requirements prior to patient contact for the type(s) of treatment or care being provided.

(C) The student complies with all policies and procedures of the training program sponsor, the health care facility responsible for the patient's care and the Department.

170.880: Emergency Medical Technicians Trained and/or Certified in Other States

(A) A person trained as an emergency medical technician in another state, who applies for Massachusetts certification as an EMT at any level, must substantiate by documentary evidence that his or her EMT training is equivalent to that required by the Department for the level of certification for which the person is applying. If the Department accepts the training as equivalent, the applicant shall be required to meet all other certification requirements of 105 CMR 170.910.

(B) A person currently certified, licensed or otherwise authorized as an emergency medical technician by another state who applies for Massachusetts certification as an EMT must meet all the requirements of 105 CMR 170.910 and 170.941, except that the Department may waive the practical examination requirement if the Department finds that the person passed a state practical examination for EMT that meets or exceeds the standards of the Department's approved practical examination required in 105 CMR 170.910. In those cases in which the Department waives the practical examination requirement, the applicant shall be required to meet all other requirements of 105 CMR 170.910.

170.900: Certification of EMS Personnel Required

No person shall use the title Emergency Medical Technician, EMT, EMS first responder or EFR or serve as an EMT or EFR unless the person is currently certified by the Department as an EMT or EFR, respectively; provided, however, that persons may serve as additional personnel who meet the requirements of 105 CMR 170.310.

170.910: Initial Certification

(A) In order to be eligible to be certified as an EMT, a person must:

(1) Be at least 18 years old;

(2) Abstain from the abuse of drugs which impair professional judgment and/or practice;

(3) Be free of any physical or mental impairment or disease which could reasonably be

expected to impair the ability to be an EMT, or which could reasonably be expected to jeopardize the health and safety of the patient;
(4) Meet the training requirements applicable to the level of certification for which the person is applying, as specified in 105 CMR 170.800 *et seq.*; and
(5) Successfully complete a Department-approved practical skills examination and the


written examination specified in 105 CMR 170.941.

(B) To apply for certification as an EMT, a person must:
(1) Complete and submit a form provided by the Department pursuant to Department policy;
(2) Submit the testing fee to the entity administering the exam, which shall be either the Department or an outside testing provider designated by the Department. Outside testing providers designated by the Department shall set a reasonable, non-refundable testing fee that shall be approved by the Department. The following are the non-refundable fees for Department-administered exams, or certification, as applicable:

| | |
|---|---|
| (a) BLS full exam: | $140.00 |
| (b) BLS partial (re-test) exam: | $70.00 written or partial practical skills exam |
| (c) ALS full exam: | $250.00 |
| (d) ALS partial exam: | $200.00, $130.00, or $80.00 depending on section |
| (e) Certification fee for EMT applicants for whom all or a portion of the Department-administered exams or exam fees are waived, pursuant to 105 CMR 170.000 or an administrative requirement of the Department: | $150.00 |
| (f) Certification fee for EMT applicants who do not take a Department-administered exam: | $150.00 |

(C) The Department shall issue certification to applicants who have properly completed the application form, submitted the appropriate fee in accordance with 105 CMR 170.910(B)(2), and met the training, examination, and other requirements set forth in 105 CMR 170.800 *et seq.* and 170.910(A)(1) through (5). Each certification shall be valid for two years.
(D)(1) EFR Certification. The Department shall issue certification to EFRs based on written submissions by EFR services documenting that their EFRs meet the following requirements:

(a) completion of the Department's application form;
(b) completion of the minimum training requirements for EFRs, pursuant to 105 CMR 170.805 and 105 CMR 171.000; and
(c) remain current in all requirements necessary to maintain certification.
(2) EFR certification shall be valid for three years.
(3) Complete records maintained by EFR services pertaining to EFRs' training and certification status shall be subject to periodic audits at any time by the Department.
(4) EMTs who work for EFR services do not have to be additionally certified as EFRs.

(E) No certification shall be valid if it was obtained through fraud, deceit or the submission of inaccurate or incomplete data.

<u>170.920: Grounds for Denial of Certification</u>

(A) The Department may deny certification on any of the following grounds:
(1) Failure to meet Department-approved training requirements for a particular level of certification;
(2) Failure to conform to the requirements of 105 CMR 170.910;
(3) Any actions or omissions which would indicate that the health or safety of the public would be at risk should certification be granted;
(4) Any previous violation of M.G.L. c. 111C or 105 CMR 170.000; or
(5) Any previous attempt to serve as an EMT or to obtain certification through fraud, deceit or knowing submission of inaccurate data.

(B) Conditions for reapplication shall be specified by the Department at the time of the denial of certification.
170.930: Renewal of EMS Personnel Certification (A) Renewal of EMT Certification.
(1) EMTs must renew certification every two years upon expiration of original certification. To be eligible for recertification, an EMT must:
(a) Meet the requirements of 105 CMR 170.810(C), 170.820(C) and 170.840(C), as applicable, with respect to refresher training and continuing education, within the time period specified by the Department in administrative requirements;
(b) Apply for a renewal of certification on a form provided by the Department no later than 60 days prior to the expiration of the current certification; and
(c) Submit a non-refundable fee of $150.00 with a completed application form for recertification.
(2) The Department shall issue a renewed EMT certification to an applicant who documents completion of the requirements of 170.930(A)(1) and against whom there are no past actions of the Department with respect to that applicant precluding recertification. A person holding an expired certification may not serve as an EMT until properly certified.

(B) Renewal of EFR Certification.
(1) EFR certification must be renewed every three years. Each EFR service shall ensure that training and documentation requirements for recertification are met for each of its certified EFRs.
(2) Each EFR service shall submit to the Department all information required for renewal of EFR certification, as listed in the administrative requirements of the Department.
(3) If training and documentation requirements are met for any individual EFR, the Department shall renew certification, provided there are no past actions of the Department with respect to that individual precluding recertification.
(4) A person whose certification has expired may not serve as an EFR until properly certified. The EFR service shall not utilize such a person as an EFR.

170.931: Emergency Medical Technicians Mobilized for Active Military Duty

(A) EMTs whose mobilization for active duty as members of a reserve or national guard component of the armed forces affected the EMT's ability to maintain current certification may


apply for extension of their certification. Candidates to become EMTs whose mobilization for active duty as members of a reserve or national guard component of the armed forces affected the candidate's ability to meet deadlines to take the Department's practical and/or written EMT certification exam may apply for extension of their eligibility to take the certification exam. The Department shall have the discretion to make adjustments to certification periods or timelines for EMT certification testing due to active military service. These provisions shall not apply in any way to such duty as annual training that is a regularly scheduled obligation for reservists or to voluntary active duty for training which is not part of a mobilization.
(B) Such EMTs and EMT candidates must apply to the Department for an extension of certification or exam eligibility, as applicable, in writing and provide acceptable proof of mobilization for active duty in the form of military orders and discharge summary.
<u>170.935: Reinstatement of Certification</u>
A person whose certification has expired and who has not applied for recertification as required by 105 CMR 170.930 or who has been refused recertification under the provisions of 105 CMR 170.940(A), may apply to the Department for reinstatement of certification in accordance with 105 CMR 170.935(A).
(A) To apply for reinstatement a person must:
(1) Submit a completed application form provided by the Department within one year of the date of expiration of the certification;
(2) Submit a non-refundable fee established by the Department with the completed application form for reinstatement of certification;
(3) Successfully complete a Department-approved EMT refresher training for the appropriate level no more than one year prior to the submission of the application for reinstatement;
(4) Successfully complete the Department-approved practical examination specified in 105 CMR 170.910(A)(5) within six months of the date of the Department's approval of the application for reinstatement;
(5) Successfully complete the Department-approved written examination specified in 105 CMR 170.941 within six months of successful completion of the Department-approved practical examination; and
(6) Conform to the requirements of 105 CMR 170.910(A)(1) through (5).

(B) The Department shall reinstate certification to an applicant who has properly qualified under 105 CMR 170.935(A). The certification shall be valid for two years, dating from the expiration of the previous certification.

(C) Previously certified EMTs not qualified for reinstatement under 105 CMR 170.935 but who

desire to be certified must comply with all initial certification requirements as specified in 105 CMR 170.910.

170.937: Reporting Obligations of EMS Personnel

(A) Each EMT or EFR shall file a written report with the service in conjunction with which he or

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she provides EMS, and with the Department within five days of the following:
(1) The EMT's or EFR's conviction of a misdemeanor or felony in Massachusetts or any other state, the United States, or a foreign country (including a guilty plea or admission to sufficient facts), other than a minor traffic violation for which less than $1,000 was assessed. The following traffic violations are not minor and must be reported: conviction for driving under the influence, reckless driving, driving to endanger, and motor vehicle homicide; or
(2) Loss or suspension of the EMT's or EFR's driver's license.

(B) Each EMT or EFR shall file a written report with the service in conjunction with which he or she works as an EMT or EFR within five days of Department action against the EMT's or EFR's certification (denial, suspension, revocation or refusal to renew certification), or other Department disciplinary action (letter of reprimand, letter of clinical deficiency, advisory letter) against the EMT or EFR.

(C) The Department shall review and assess the information it receives under 105 CMR 170.937(A) in accordance with procedures established in a written policy. Any Department action to deny, suspend, revoke or refuse to renew an EMT or EFR certification, under 105 CMR 170.940, shall proceed in accordance with 105 CMR 170.740 through .780, as applicable to the Department action taken.

170.940: Grounds for Suspension, Revocation of Certification, or Refusal to Renew Certification

The Department may suspend or revoke certification, or refuse to renew certification, of any EMT on the following grounds:

(A) Failure to meet training requirements for renewal of certification;

(B) Failure to meet the requirements of 105 CMR 170.800 *et seq.* or 105 CMR 170.900 *et seq.*;

(C) Failure to exercise reasonable care, judgment, knowledge, or ability in the performance of duties or to perform those duties within the scope of his/her training and certification, and in accordance with the Statewide Treatment Protocols;

(D) Gross misconduct in the exercise of duties;

(E) Commission of any criminal offense relating to the performance of duties including any conviction relating to controlled substances violations;

(F) Any condition or action that endangers the health or safety of the public;

(G) Refusal to surrender a certificate in violation of 105 CMR 170.750(C);

(H) When conducting training programs, failure to conduct such program(s) in accordance with provisions in 105 CMR 170.945 through 170.978 and/or the standards and procedures established in the administrative requirements published separately by the Department;



(I) Violation of a correction order;

(J) Failure to submit a plan of correction, when required to by the Department in accordance with 105 CMR 170.710;

(K) Failure to comply with a Department-approved plan of correction, or a Department correction order pursuant to 105 CMR 170.720;

(L) Failure to pay a deficiency assessment levied in accordance with 105 CMR 170.730;

(M) Knowingly make an omission of a material fact or a false statement, orally or in any application or document filed with or obtained by the Department or any other entity in the EMS system;

(N) Failure to complete a trip record, as required by 105 CMR 170.345; or

(O) Any violation of M.G.L. c. 111C or 105 CMR 170.000.

170.941: Written Examination for EMT

(A) The Department shall approve a written examination to be administered to persons who have applied for certification as an EMT, met the requirements of 105 CMR 170.910(A)(1) through (4) and 170.910(B), and passed the practical skills examination for certification as an EMT. The written examination shall test a person's competence in the cognitive knowledge related to the level of certification for which the application is made.

(B) In instances where the Department does not have an examination available for EMTs at the EMT-Intermediate or EMT-Paramedic level, the Department may deem another examination as equivalent for certification purposes.

170.942: Examiner and Chief Examiners: Duties and Requirements for Approval

The Department shall approve personnel as Chief Examiners and Examiners, who shall be the sole persons authorized to oversee and administer, respectively, the practical skills examination required pursuant to 105 CMR 170.910(A)(5).

(A) Duties of a Chief Examiner. The duties and responsibilities of a Chief Examiner include, but are not limited to, the following:
(1) Overseeing the administration of the practical skills examination as the Department's representative, to ensure that exam administration conforms to Department standards;
(2) Complying with conflict of interest requirements set out in the Department's Examiner's Manual;
(3) Monitoring Examiners and regularly evaluating in writing their competency and effectiveness; and
(4) Functioning in accordance with the procedures set forth in the Department's Examiner's Manual.
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(B) Persons seeking Department approval as a Chief Examiner shall submit an application on a form provided by the Department. The minimum requirements for approval as a Chief Examiner are as follows:
(1) Current certification as an EMT at a level equal to or greater than the EMT level for which the test is administered;
(2) Successful completion, documented by a current training card, of an instructor's course in Basic Life Support cardiopulmonary resuscitation not less than the standards established by the Committee on Cardiopulmonary Resuscitation and Emergency Cardiac Care of the American Heart Association;
(3) At least one year's experience in providing pre-hospital emergency medical care as an EMT at a level equal to or greater than the EMT level for which the test is administered;
(4) Successful completion of Chief Examiner training, orientation and internship requirements of the Department;
(5) Current Department approval as an Examiner or successful completion of supplemental Chief Examiner training, in addition to that required under 105 CMR 170.942(B)(4), as required by the Department; and
(6) A favorable evaluation by the Department.

(C) Duties of an Examiner. The duties and responsibilities of an Examiner include, but are not limited to, the following:
(1) Administering the practical skills examination, including providing a fair, impartial, accurate and knowledgeable assessment of candidates' performance of required practical skills;
(2) Complying with conflict of interest provisions set out in the Department's Examiner's Manual;
(3) Working at the direction of the Chief Examiner on site; and
(4) Functioning in accordance with the procedures set forth in the Department's Examiner's Manual.

(D) Persons seeking Department approval as an Examiner shall submit an application on a form provided by the Department. The minimum requirements for approval as an Examiner are as follows:
(1) Current certification as an EMT at a level equal to or greater than the EMT level for which the test is administered;
(2) Successful completion, documented by a current training card, of an instructor's course in Basic Life Support cardiopulmonary resuscitation not less than the standards established by the Committee on Cardiopulmonary Resuscitation and Emergency Cardiac Care of the American Heart Association;
(3) Successful completion of an Examiner training and orientation provided by the

Department;
(4) Successful completion of an internship under a Chief Examiner; and (5) A favorable evaluation by the Department.
(6) Exception: The Department may waive any of the requirements listed in 105 CMR 170.942(D)(1)-(4) for Examiners who administer examinations for advanced EMTs at the EMT-Intermediate or EMT-Paramedic level. Requirements may be waived for a person
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seeking such approval if:
(a) The person is a registered nurse or physician and has clinical training and experience the Department determines is appropriately suited for administering a particular type(s) of station(s) for the practical portion of an examination; or
(b) The person is, or has been, an instructor in a Department-approved Intermediate or Paramedic training program and the Department determines the person's expertise and familiarity with the education and performance of ALS personnel qualifies him or her to administer examinations.
(E) The Department may issue a certificate of approval as a Chief Examiner or Examiner to an applicant who has successfully met all the requirements of 105 CMR 170.942 applicable to the requested level of approval. The term of such approval shall run concurrently with the term of the applicant's EMT certificate.
170.943: Renewal of Approval as a Chief Examiner and Examiner
The Department may renew approval of a Chief Examiner or Examiner for an additional term to run concurrently with his or her EMT certificate. A Chief Examiner or Examiner must apply for renewal of approval on a form provided by the Department, no later than 60 days prior to the expiration of the current approval. A person with an expired approval as a Chief Examiner or Examiner may not oversee or administer, as applicable, the Department's practical skills examination:
(A) To be eligible for renewal of approval, a Chief Examiner or Examiner must:
(1) Continue to meet the requirements of 105 CMR 170.942 applicable to his or her level of approval; and
(2) During the term of the immediate past approval period, have received a favorable evaluation from the Department as a Chief Examiner or an Examiner, as applicable. The Department's evaluation of an Examiner will be based, at a minimum, on evaluations by Chief Examiners.

(B) The Department shall provide written confirmation of renewed approval as a Chief Examiner or Examiner, as applicable, to an applicant who successfully documents completion of the requirements of 105 CMR 170.943 and against whom there are no past enforcement actions of the Department with respect to that applicant, either as an EMT, a Chief Examiner or an Examiner, precluding renewed approval.

170.944: Grounds for Denial, Suspension, and Revocation of Examiner and Chief Examiner Approval or Reapproval

Approval or reapproval as an Examiner and/or Chief Examiner may be denied, suspended or revoked by the Department on the following grounds:

(A) Failure to meet the requirements of 105 CMR 170.942 or 170.943;

(B) Failure to function during an examination for EMT in accordance with Department standards and procedures established separately as administrative requirements and set forth in the Examiner's Manual;

(C) Interfering with or deviating from the Department examination process for EMT certification so as to improperly influence or attempt to influence the outcome of an examination;
(D) Failure to exercise reasonable care, judgment, knowledge, or ability in the performance of duties as an EMT, as an Examiner, Chief Examiner and/or in conducting any program regulated by the Department, or to perform those duties within the scope of his or her training and certification and/or approval;
(E) Gross misconduct in the exercise of duties as an EMT, an Examiner, a Chief Examiner, and/or in conducting any program regulated by the Department;
(F) Commission of any criminal offense relating to the performance of duties as an EMT, an Examiner, or a Chief Examiner including any conviction relating to controlled substances violations;
(G) Any condition or action that endangers the health or safety of the public; or (H) Any violation of M.G.L. c. 111C or 105 CMR 170.000.
170.945: Department-Approved EMT Training

(A) Through June 30, 2005, Department approval of all EMS personnel training programs, including initial training programs, shall be carried out either on an individual program approval basis pursuant to 105 CMR 170.960, or by training institutions accredited by the Department pursuant to 105 CMR 170.946.

(B) After June 30, 2005, all initial training programs must be provided by training institutions accredited by the Department pursuant to 105 CMR 170.946 *et seq.*

(C) After June 30, 2005, all refresher training programs or continuing education must either:
(1) Be provided by training institutions accredited by the Department pursuant to 105 CMR 170.946, or
(2) Have received individual program approvals by the Department pursuant to 105 CMR 170.960.

170.946: Accreditation of Training Institutions: General Provisions

(A) Eligibility. A training institution seeking Department accreditation shall be an organization capable of providing programmatic and fiscal oversight of, and assuming accountability for, the instruction, operation, performance and evaluation of the training of EMTs and EMT-candidates. To be eligible to apply for accreditation, the training institution must provide, either directly or through contractual arrangements with a Department-accredited training institution or post-secondary educational institution, a basic infrastructure that:
(1) Employs quality assurance/quality improvement procedures for assessing the institution's performance;
(2) Adequately assesses the performance of instructors and assumes clear accountability

for its instructors;
(3) Adequately assesses the performance of its students; .


(4) Provides its students with adequate access to research and learning tools and materials, including, but not limited to, library facilities, computers, audio-visual educational aids and other technology determined to be necessary by the Department;
(5) Provides adequate classroom facilities and practical skills training areas; and (6) Provides adequate administrative support.

(B) Level of accreditation. An applicant for accreditation shall specifically seek, and the Department shall grant qualified training institutions accreditation, at either the BLS and/or ALS level(s) of training.

(C) Application Process. An applicant for accreditation shall:
(1) Complete and submit an application form provided by the Department;
(2) Undergo an on-site evaluation by the Department;
(3) Submit a non-refundable accreditation fee of $500.00.

(D) The Department shall accredit an applicant training institution in either one of two ways:
(1) Full Review: After receipt of a completed application, the Department makes a finding, based on review of the applicant, that:
(a) The applicant is eligible, in accordance with 105 CMR 170.946(A);
(b) The applicant is responsible and suitable, in accordance with 105 CMR 170.948; and
(c) The applicant is capable of meeting the duties and responsibilities of accredited training institutions, pursuant to 105 CMR 170.950.
(2) Substantially Equivalent Review: The Department confirms a training institution has current accreditation in good standing that meets Department approval as substantially equivalent to the Department's process.
(a) A training institution may submit to the Department a letter of intent to seek accreditation based on substantially equivalent accreditation and attesting to its capability of, and commitment to, meeting the duties and responsibilities for accredited institutions, pursuant to 105 CMR 170.950, and documentation of its current accreditation.
(b) Accreditation on the basis of substantially equivalent accreditation shall run concurrent with the term of the substantially equivalent accreditation. The training institution shall submit documentation of maintenance of such accreditation. If such substantially equivalent accreditation is not maintained, the training institution's Department accreditation expires, unless the training institution submits an application and successfully meets the requirements of 105 CMR 170.946(D)(1) and the Department's administrative requirements.

(E) Term. Accreditation by the Department shall be for a term of no longer than three years. A complete renewal of accreditation application and accreditation fee must be filed with the Department six months prior to the expiration of accreditation.

(F) Provisional Accreditation.
(1) The Department may issue provisional accreditation to an applicant for accreditation who does not meet the requirements of 105 CMR 170.946 through 170.950, provided that the applicant has demonstrated to the Department's satisfaction a good faith intention to meet

all such requirements and provided that the Department finds the applicant provides adequate EMT training and evidences a potential for full accreditation within a reasonable period not to exceed one year.
(2) In order to be provisionally accredited, the applicant training institution shall document in writing a plan for meeting all the requirements for full accreditation, and the Department must approve the plan.
(3) Provisional accreditation shall expire one year after the date on which it was issued, and may be renewed for one additional year, subject to Department review and approval. The Department shall in no case issue provisional accreditation more than two consecutive times to the same training institution.
(4) During the period of its provisional accreditation, the training institution shall timely submit to the Department documentation and other information as may be required, in accordance with administrative requirements of the Department.

170.948: Finding of Responsibility and Suitability of Applicants for Accreditation

(A) Upon receipt and review of an application for accreditation, the Department shall make a finding concerning the responsibility and suitability of the applicant training institution. Findings may be based upon information concerning persons with a significant financial or management interest in the training institution. A determination of responsibility and suitability shall be based on factors including, but not limited to, the following:
(1) The applicant's history, if any, of prior compliance with 105 CMR 170.000, 105 CMR 171.000 and M.G.L. c. 111C, and 105 CMR 700.000;
(2) The familiarity and experience of the applicant in operating an EMS training program approved under 105 CMR 170.000, or in operating adult vocational training or higher educational programs;
(3) The applicant's ability to provide and sustain quality EMS training programs to serve the needs of students;
(4) The ability of training institution administrators to operate the program in a manner sufficient to satisfy the requirements of 105 CMR 170.000 and/or 105 CMR 171.000, as applicable;
(5) Adequate financial resources of the applicant to provide training sufficient to meet the requirements of 105 CMR 170.000, as demonstrated by a current financial statement or current budget;
(6) The adequacy of the training institution's legal capacity to operate, as demonstrated by articles of incorporation and corporate by-laws;
(7) The applicant's history, if any, of any of the following:
(a) Any willful or deliberate failure to provide training to a person for reasons of race, color, religion, sex, sexual orientation, age, national origin, ancestry or

disability;
(b) Any attempt to impede the work of a duly authorized representative of the Department or the lawful enforcement of any provisions of M.G.L. c. 111C or 105 CMR 170.000;
(c) Conviction of a criminal offense, such as drug abuse, rape, assault or other violent crime against a person, or related to the provision of training subject to the Department's approval; or


(d) Any attempt to obtain accreditation or training program approval by fraud, misrepresentation, or the submission of false information.

(B) If the Department is unable to make a finding of responsibility and suitability on the basis of any of the factors listed above, the applicant will have the burden of persuasion to prove the applicant's responsibility and suitability.

170.950: Duties and Responsibilities of Accredited Training Institutions

Accredited training institutions shall carry out the following duties:

(A) Conduct training programs in accordance with M.G.L. c. 111C, 105 CMR 170.000, and in accordance with administrative requirements for the following:
(1) Academic and clinical staff;
(2) Administrative staff;
(3) Current training course curricula, including incorporation of the Statewide Treatment Protocols;
(4) Supervised clinical and field internships;
(5) Admission requirements;
(6) Ongoing student and instructor evaluation;
(7) Classroom space, practical skills training areas and equipment;
(8) Timely submission of training program documentation to the Department; and (9) Maintenance of accurate and appropriate records for a minimum of seven years following course completion.

(B) Cooperate with site visits and inquiries of agents of the Department;

(C) Upon request, make available to agents of the Department all records relating to the provision of EMS training programs;

(D) Maintain an effective quality assurance/quality improvement system, which includes collection of data and adequate documentation to evaluate the program and assess its effectiveness in achieving educational goals and objectives;

(E) Comply with applicable requirements pertaining to use and secure storage of controlled substances and instruments for administration of controlled substances, in accordance with requirements of the Department's Drug Control Program, pursuant to 105 CMR 700.000;

(F) Administer, in accordance with the Department's administrative requirements, the Department-approved practical skills examination for state certification for the training institution's eligible students, and for eligible candidates as assigned by the Department; and

(G) Pay an annual accreditation fee in the amount of $500.

170.955: Grounds for Denial of Accreditation

(A) Grounds for denial of accreditation include, but are not limited to, the following:
(1) Failure to meet the requirements for becoming accredited by the Department, in accordance with 105 CMR 170.946;
(2) Failure to submit an application and fee in accordance with 105 CMR 170.946(C);
(3) Failure to satisfy the Department as to any of the grounds for determining the responsibility and suitability of the applicant under 105 CMR 170.948; or
(4) Fraud, deceit or knowing submission of inaccurate or incomplete data to the Department, either orally or in writing.

(B) Denial of accreditation may be appealed in accordance with 105 CMR 170.760.

170.957: Grounds for Suspension, Revocation or Refusal to Renew Accreditation

(A) Grounds for suspension or revocation of accreditation include, but are not limited to, the following:
(1) Failure to meet the Department's duties and responsibilities for accredited training institutions under 105 CMR 170.950;
(2) Failure to allow the Department or its agents to observe or evaluate programs, including training program records, personnel, facilities, classes, clinical practice sessions and field internships;
(3) Violation of a correction order;
(4) Failure to submit an acceptable plan of correction as required under 105 CMR 170.710;
(5) Failure to comply with a plan of correction;
(6) Failure to pay a deficiency levied in accordance with 105 CMR 170.730;
(7) Engaging in, or aiding, abetting, causing or permitting any act prohibited by M.G.L. c. 111C, 105 CMR 170.000 and administrative requirements of the Department; (8) Conviction of a criminal offense related to the provision of training subject to Department approval; or
(9) Any attempt to maintain accreditation by fraud, misrepresentation or by omitting material facts or submitting false information to the Department, either orally or in writing.

(B) Suspension or revocation of accreditation may be appealed in accordance with 105 CMR 170.760.

170.960: Approval of Training Programs by Nonaccredited Training Providers
(A) Each training program offered by a nonaccredited training provider must be individually approved by the Department. After June 30, 2005, nonaccredited training providers may provide only refresher training and continuing education programs.

(B) Any nonaccredited training provider seeking training program approval shall:
(1) Submit a complete application on a form provided by the Department; and
(2) Submit a copy of the application to the appropriate Regional EMS Council(s).



(C) Separate program approval is required for each offering of an initial or refresher training program, even if the same training program was previously approved and/or offered. For continuing education training programs, blanket approval may be obtained for multiple offerings of the same training program in a single calendar year.

(D) Applicants denied approval may re-apply for approval, but not more than once in the 12 months following denial.

(E) Any publications or advertisements concerning the program shall accurately reflect the education and training being offered.

(F) Prior to receipt of Department approval for a training program pursuant to 105 CMR 170.960(A), no nonaccredited training provider shall:
(1) Advertise such a training program as approved by the Department;
(2) Accept applications from prospective students; or (3) Conduct any classes for such a training program.

170.964: Standards for Training Programs by Nonaccredited Training Providers

Nonaccredited training providers seeking Department approval for training programs, pursuant to 105 CMR 170.960, shall meet the following requirements:

(A) Training program subject matter must be relevant to the level of training and role and responsibilities of the EMT and conform to standards of practice in the Statewide Treatment Protocols.

(B) All training program instructors must have education and experience appropriate to the subject matter and to adult instruction. The nonaccredited training provider shall establish and maintain an effective quality assurance/quality improvement system for oversight and evaluation of instructors' performance, in accordance with administrative requirements of the Department.

(C) Through June 30, 2005, the principal conductor of an EMT-Basic training course designed to fulfill the requirements of initial training provided by 105 CMR 170.810(B) must be an Instructor/Coordinator approved by the Department according to 105 CMR 170.977 and 170.978.

(D) Through June 30, 2005, each initial training program at the Intermediate or Paramedic level provided by a nonaccredited training provider must have a Medical Director, Training Coordinator, and Administrative Coordinator. The Department shall establish standards for the training, experience, and responsibilities of such persons in administrative requirements.

(E) All training programs shall be conducted in appropriate classroom space with appropriate educational aids and equipment, in accordance with administrative requirements of the Department. Nonaccredited training providers that offer training programs requiring practice of skills must also provide an appropriate laboratory setting and appropriate equipment for performing such skills, in accordance with the Department's administrative requirements.

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(F) Each training program presented for approval must contain appropriate objectives, content outline, teaching method and instructional media and measurement/evaluation method, in accordance with administrative requirements of the Department.

(G) The training provided shall be consistent with the approved application.

(H) The nonaccredited training provider shall submit original attendance rosters for each session of the training program to the Department and maintain a copy of each attendance roster.

(I) The nonaccredited training provider shall make available to agents of the Department upon request all records relating to the provision of EMS training programs;

(J) The nonaccredited training provider shall submit a list to the Department of those who have successfully completed the training program at the completion of each training program.

(K) Through June 30, 2005, a nonaccredited training provider offering an initial training program that includes clinical or field internship or other student/patient contact as part of its training shall maintain an effective quality assurance/quality improvement system, which includes appropriate oversight, policies and procedures, collection of data and adequate documentation to evaluate the student's performance, in accordance with administrative requirements of the Department. The quality assurance/quality improvement system must ensure that patients are protected from harm from unauthorized and untrained students. The nonaccredited training provider shall enforce compliance with the quality assurance/quality improvement system.

170.970: Request for Subsequent Approval of Training Programs by Nonaccredited Training Providers

In addition to the provisions set forth in 105 CMR 170.960 through 170.964, when a nonaccredited training provider that had previously received Department approval for an EMT training program requests approval for a subsequent training program, the Department shall evaluate the request in the light of its conduct of past training programs. This includes, but is not limited to, consideration of the following:

(A) Through June 30, 2005, for initial training programs, percentage of students in previous classes who have successfully completed the Department-approved certification examination;

(B) The nonaccredited training provider's history of compliance with 105 CMR 170.000, including but not limited to, submission of complete and timely applications for approval, attendance rosters, list of those students who have successfully completed programs and other

documentation as requested by the Department;

(C) The nonaccredited training provider's cooperation with inquiries and site visits by representatives of the Department.

170.976: Grounds for Denial, Suspension, or Revocation of Program Approval of Training



Programs by Nonaccredited Providers

The following reasons constitute grounds for denial, suspension, or revocation of program approval:

(A) Failure, at any time, to allow the Department to inspect, observe, or evaluate a training program, including the training program's personnel, facilities, classes, and practical skills sessions associated with such program;

(B) Use of training or administrative personnel not competent for the type of training offered;

(C) Failure to meet any of the requirements for approval and conduct of training programs as set forth in 105 CMR 170.960 through 170.970 and in administrative requirements of the Department;

(D) Conviction of a criminal offense related to the provision of training that requires Department approval;

(E) Failure to observe recognized professional standards in the course content and operation of the training program;

(F) Any attempt to obtain or maintain training program approval by fraud, misrepresentation or by omitting material facts or submitting false information to the Department, either orally or in writing;

(G) Failure to keep accurate and adequate records, including the names and addresses and type of training completed of all graduates and attendees;

(H) Such conduct or actions, including any listed in 105 CMR 170.976 (A) through (F), as indicates a lack of suitability or responsibility which may result in harm to the health and safety of the public;

(I) Failure to submit an application in accordance with the requirements of 105 CMR 170.000 or the Department's application procedures;

(J) Failure to offer training that is consistent with the approved application; or

(K) Engaging in, or aiding, abetting, causing or permitting any act prohibited by M.G.L. c. 111C, 105 CMR 170.000 or administrative requirements of the Department.

170.977: Instructor/Coordinators: Duties and Requirements for Approval

The Department shall approve personnel as Instructor/Coordinators (I/Cs), who shall be the sole persons authorized to teach an initial training program at the EMT-Basic level.

(A) The duties and responsibilities of an Instructor/Coordinator include, but are not limited to,

the following:
(1) Planning, developing, instructing and coordinating the EMT-Basic classes in accordance with 105 CMR 170.810 and the administrative requirements of the Department;
(2) Managing and ensuring quality of the delivery of the EMT-Basic classes, whether delivered by personal lecture or practical demonstration, or by specialty or guest lecturers. Such quality assurance shall include, at a minimum, a system that incorporates collection of data and adequate documentation to evaluate the EMT-Basic classes and assess their effectiveness in achieving educational goals and objectives, in accordance with the administrative requirements of the Department;
(3) Remaining current and knowledgeable with regard to all EMT-Basic procedures, equipment, training curricula, the Statewide Treatment Protocols, 105 CMR 170.000 and M.G.L. c. 111C pertaining to the provision of prehospital care and the role and responsibilities of the EMT; and
(4) Making available to agents of the Department upon request all records relating to the provision of EMS training.

(B) Persons seeking Department approval as an Instructor/Coordinator shall submit an application on a form provided by the Department. The minimum requirements for approval by the Department as an Instructor/ Coordinator are as follows:
(1) Current certification as an EMT-Basic;
(2) Current certification as an Instructor in a Basic Life Support cardiopulmonary resuscitation;
(3) A minimum of one year's experience as an EMT certified at the EMT-Basic level providing pre-hospital care;
(4) Successful completion of a Department-approved EMT instructor-training course that includes adult education, psychomotor skills and affective learning components, or Department-approved substantially equivalent training;
(5) Successful completion of an orientation provided by the the Department; and
(6) Competency in teaching and knowledge of the subject matter as demonstrated by a favorable evaluation by the Department.

(B) The Department may issue a certificate of approval to an applicant who has successfully met all requirements of 105 CMR 170.977. The term of such approval shall run concurrently with the term of the applicant's EMT certificate.

170.978: Renewal of Approval as an Instructor/Coordinator

The Department may renew approval of an Instructor/Coordinator. An Instructor/Coordinator must apply for renewal of approval on a form provided by the

Department, no later than 60 days prior to the expiration of the current approval. A person with an expired approval as an Instructor/Coordinator may not teach initial training programs at the EMT-Basic level.

(A) To be eligible for renewal of approval, an Instructor/Coordinator must:
(1) Continue to meet the requirements of 105 CMR 170.977 and administrative requirements of the Department with respect to Instructor/Coordinators;

(2) During the term of the immediate past approval period, have been responsible for fulfilling, and have carried out, all the duties and responsibilities of an Instructor/Coordinator set out in 105 CMR 170.977(A) with respect to a Department-approved, and after June 30, 2005, Department-accredited initial EMT training program; and
(3) Successfully complete Instructor/Coordinator training updates as required by the Department.

(B) The Department shall provide written confirmation of renewed approval as an Instructor/Coordinator to an applicant who documents completion of the requirements of 105 CMR 170.978 and against whom there are no past enforcement actions of the Department with respect to that applicant, either as an EMT or as an Instructor/ Coordinator, precluding renewed approval.

170.979: Grounds for Denial, Suspension, and Revocation of Instructor/Coordinator Approval or Reapproval

Approval or reapproval as an Instructor/Coordinator may be denied, suspended, or revoked by the Department on any of the following grounds:

(A) Failure to meet the requirements of 105 CMR 170.977 or 170.978;

(B) Failure to conduct and/or administer Department-approved training in accordance with Department administrative requirements;

(C) Interfering with the examination and/or certification process so as to improperly influence or attempt to influence the outcome of the examination;

(D) Failure to provide evidence of documentation of the requirements of 105 CMR 170.977 to the Department upon request;

(E) Failure to exercise reasonable care, judgment, knowledge, or ability in the performance of duties as an EMT or as an instructor when conducting any program regulated by the Department, or to perform those duties within the scope of his/her training and certification and/or approval;

(F) Gross misconduct in the exercise of duties as an Instructor/Coordinator, an EMT, a Chief Examiner or an Examiner, including but not limited to any conviction relating to controlled substances violations;

(G) Commission of any criminal offense relating to the performance of duties as an

Instructor/Coordinator, an EMT, a Chief Examiner or an Examiner, including but not limited to any conviction relating to controlled substances violations;

(H) Any condition or action that endangers the health or safety of the public; or

(I) Any violation of M.G.L. c. 111C or 105 CMR 170.000.

170.1000: Severability

If any rule contained herein is found to be unconstitutional or invalid by a Court of competent jurisdiction, the validity of the remaining rules will not be so affected.

REGULATORY AUTHORITY
105 CMR 170.000: M.G.L. c. 111C.