Emergency Vehicle Safe Operations for Volunteer & Small Combination Emergency Service Organizations







he following report is the result of a cooperative project between the United States Fire Administration (USFA) and the National Volunteer Fire Council (NVFC) and includes recommendations from the USFA and the Department of Transportation Intelligent Transportation System. This initiative has created many outreach implementation strategies targeted at the volunteer and combination fire service. In addition, information from the National Fallen Firefighters Foundation (NFFF) Firefighter Life Safety Initiatives project, along with several existing practices in the emergency service community and basic industry were integrated into the research and development of this program.

Year after year, nearly 25 percent of the firefighters who are killed in the line of duty are responding to or returning from incidents, with the majority of the fatalities resulting from vehicle crashes. This represents the second leading cause of firefighter fatalities (the first is heart attack).

Numerous firefighters have died while working at emergency incidents because they were struck by vehicles. In 2007, 27 firefighters died in vehicle crashes. In addition to those deaths, one other firefighter was struck and killed by a vehicle. Between 1996 and 2006, vehicle collisions/struck-by incidents accounted for 20 percent of all fatalities (U.S. Fire Administration, Firefighter Fatality Reports 1996-2006). Death, although the most devastating, is only one area of concern. Collisions cause injuries, which can be more costly than death in terms of long-term pain, suffering, and expense. These issues affect operations of emergency service organizations (ESOs). No one joins an ESO to have a collision that disables them, causes death, or costs the community more money. Therefore, the individual has a personal responsibility in the safe operation of emergency vehicles.

The USFA, NVFC, and NFFF are committed to mitigating the fatalities, injuries, costs, and reduced efficiency associated with vehicle crashes. The National Fallen Firefighters Foundation Life Safety Initiatives, entitled "Everyone Goes Home," focuses on the fact that YOU can make a difference by getting back to basics. The premise is simple: it is your duty and responsibility to make every day a training day, so that everyone goes home. These initiatives strike at the heart of the emergency vehicle-related deaths that claim over 20 percent of the firefighter fatalities each year.

By now you should be beginning to understand why it is necessary to discuss and act on this issue:

- > The injuries, deaths, property damage, and operational costs are staggering.
- > An estimated 93 percent of the driving public exhibits poor driving habits.
- > Physical and dynamic forces affecting emergency service vehicles are not well understood.
- > The emergency service community exhibits a general lack of focus on personal safety.



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Objective

The National Volunteer Fire Council (NVFC), in partnership with the U.S. Fire Administration, established a work plan to examine recommendations from the USFA Fire Service Emergency Vehicle Safety Initiative that apply to the volunteer fire and emergency services and to develop specific implementation strategies that will target the volunteer fire and emergency services.



Strategic Approach

Reducing emergency vehicle near misses, incidents, injuries, deaths, related property damage, and operational impact starts with identification of a core set of "Best Practices." These "Best Practices" need to be implemented and evaluated locally to match the needs and culture of the local emergency service organization. In order to adjust successfully, the organization's culture must be receptive to and accept the changes. They do not have to like the modifications, but they must understand the necessity. If the organization is not ready for the change, it will not be successful. The organization's leaders must first work at changing the attitude of the members, then implement the changes.

These **"Best Practices"** were developed from a series of emergency service-based issues and programs; however, they fit into a more global approach derived from safety engineering principles. These principles include a four-step safety engineering approach to limit incidents and losses. They are listed in order of impact and magnitude of results:

- 1. Engineer out the problem.
- 2. Implement loss-reduction techniques.
- 3. Implement administrative controls.
- 4. Train personnel on how to use the proper safety devices and do the job correctly.

This approach is illustrated as follows:

- > Engineer out the problem: Rollover prevention built into fire apparatus
- > Implement loss reduction techniques: Seat belts installed and used
- > Implement administrative controls: Standard operating procedures/standard operating guidelines (SOP/SOG) implemented and enforced
- > Train personnel on how to use the proper safety devices and to do the job correctly by driving the vehicle on-road before responding to incidents.



Best Practices in Emergency Vehicle Safety Self Assessment

he result of this work effort is a series of "Best Practices in Emergency Vehicle Safe Operations" that can be evaluated by ESOs and implemented as they deem necessary and appropriate. ESOs should not ignore the most obvious risks and must take the steps necessary to prevent loss.

"Best Practices" are defined as certain themes that have emerged in recent years, which help characterize a situation. Generally these themes include:

- > Acquiring knowledge obtained by experience
- > Solving a problem
- > Being a meaningful initiative
- > An in-depth inquiry of a specific issue
- > Being related to independent learning

These themes are further confirmed as:

- > Being evidence-based (leaving emotions at the door)
- Connecting organizational decisions to improve overall organizational success
- > Very specific intervention and theories to provide a plan to solve a specific problem.

"Best Practices" are Quality Improvement

Initiatives

As we identify the "Best Practices in Emergency Vehicle Safe Operations", we find 10 key "practices." These practices combine known loss exposures, practical tools and techniques to manage risk and loss, and realistic management practices to create an approach that will help you manage risk and loss in your emergency service organization. The 10-point program represents business, emergency services, and management applications that are known to work to manage your investments and loss dollars. They work together and require coordination, but more importantly, demonstrate commitment to the program.

Best Practice #1 - Responsible Person

Any effective program starts with a commitment from management to the program. A person must be assigned (or elected) to lead the program who has an interest in seeing the program succeed and has the necessary authority and responsibility to make the program successful. This process pushes the practical responsibility for the program to the lowest level of the organization and drives behaviors to ensure losses are minimized. In business, this "responsible person" many times has the responsibility for losses that adversely affect the organization, which may ultimately affect their income. In the volunteer fire service, since funding has to be spent on vehicle issues instead of incentives, protective equipment, or other needs, the responsible person may lose stature and value to the organization.

Best Practice #2 - Collision Investigation

Conducting collision investigations and near-miss investigations gives you a method of identifying what caused a collision and what actions need to be taken to prevent the collision from occurring in the future. These investigations are not conducted to assign blame for the loss, but to identify direct and indirect causes in an effort to prevent the incident from occurring again. Positive attitudes focused on this problem minimize emotional impact.

Best Practice #3 - Loss Analysis

Periodically, but at least annually, all losses, incidents, and near misses need to be analyzed to identify trends. Trend identification will help determine loss prevention needs, program type needs, and appropriate action plans, which hopefully will prevent future incidents. In addition, identifying trends will enable you to develop benchmarks from which you can establish objectives and compare future progress. Record keeping is imperative to allow for quality loss analysis.

Best Practice #4 - Regulatory and Statute Compliance

Compliance with local, state, and national regulations and statutes is mandatory and failure to comply places the organization in potential conflicts that may result in serious adverse financial, operational, and legal situations. All drivers, including those operating privately-owned vehicles, must meet appropriate driver's license and insurance requirements.

Best Practice #5 - Training

Training is the first step to understanding the requirements of any "Best Practice." Over time, the members must be trained in a variety of issues and at multiple levels, but it should all be motivated by the expectations set forth by the officers in the department's "Best Practices" and standard operating procedures/standard operating guidelines (SOPs/SOGs). Training should be identified, developed, and implemented to ensure that the drivers understand they are to be as efficient and safe as possible when operating the ESO's equipment. This instruction includes basic and periodic refresher training, including a specific emergency vehicle operations course (EVOC), a review of SOPs/SOGs affecting vehicle operation, and personal accountability. As the driver/operator, they must have an understanding of each vehicle's design, operations, and limitations, and participate in a special course on each new vehicle placed into service by the ESO.

The instruction should, over time, integrate classroom, hands-on, and simulation (if available) experiences, and an on-road test. These multiple training initiatives suggest the need for a comprehensive driver-training program.

Best Practice #6 - Loss Prevention Practices

To be able to manage the impact of loss on an organization, it is important to develop and implement appropriate loss prevention practices. For emergency vehicle operations this includes a combination of engineering and operation issues. These issues include:

- > Driver/operator selection procedures
- > Routine maintenance and vehicle inspection programs
- > Standard operating procedures/standard operating guidelines
- > Warning devices
- > A substance abuse program
- > An alcohol use policy
- > Speed limitations
- > Electronic monitoring systems
- > Reduced apparatus response
- > Priority dispatching
- > Traffic preemption systems
- > On-the-quiet responses
- > Reflective striping

However, no issue is more basic than making sure seat belts are used and, if possible, interlocked to ensure the vehicle does not move until the belt is fastened. Policy enforcement is imperative.

Best Practice #7 - Managing Driver Behavior

Business and industry have found several methods to manage driver behavior. Primarily, this occurs by monitoring the driver and identifying any unacceptable driving practices. This monitoring and enforcement of rules positively changes attitudes and behavior and can be accomplished through methods such as:

- > Officer and peer monitoring/review
- > Periodic review of motor vehicle records
- > Enforcement of SOPs/SOGs
- Using award programs to recognize positive driving behaviors

In every situation though, if action is not taken when poor driving behaviors are observed, the driver/operator will continue the "bad habits."

Best Practice #8 - Hot Topics

"Hot topics" occur periodically, usually emanating from unique situations, losses, new regulations, deaths, or serious injury; any of which requires the timely communication of specific information. Generally, these topics are communicated by emails, newsletters, faxes, or training programs. Current hot topic initiatives in the emergency services include safe operation of personally-owned vehicles, use of seat belts, intersection safety, rollover safety, and operating safely at incidents on highways. The concept of "highway safety" has achieved significant exposure, resulting in National Institute for Occupational Safety and Health safety criteria, expanding advanced warning, American National Standards Institute protective equipment standards, and other initiatives to limit injuries and save lives.

Best Practice #9 - Report Incidents

Timely reporting of incidents is a critical component of the loss management sequence to ensure the injured are treated and details are not forgotten. Preparation includes both a procedure and an employee training component to teach drivers how to respond when an incident occurs.

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This process ensures that the injured parties are treated promptly, properly, fairly, and compassionately, and directed to a physician or facility with the same interests in ensuring quality care with the least amount of inconvenience and cost.

Best Practice #10 - Apparatus and Vehicle Design and Construction

ESOs are quick in designing unique apparatus for their community. Unfortunately, most ESO personnel are not design engineers and do not truly understand the impact

design engineers and do not truly understand the impact of their requests for what a piece of apparatus can do or what it can hold. Once you have developed the tasks and performance demands for the vehicle, inform the design engineers of your requirements and let them determine what the vehicle will be like. Place the responsibility for the design and construction on the manufacturer. In recent years, vehicles have become bigger, faster, heavier, and easier to maneuver. Without the proper understanding of the differences in stopping distance, center of gravity (and rollover potential), and safe maneuvering practices, an incident is highly probable in your future. ow do you manage behavior and motivate people? There are many different contexts to which this question could be applied, such as getting people to join an organization, getting existing personnel to be more active, or even just getting people to clean up after themselves. The truth of the matter is that you do not motivate people to do things. Unless individuals have a want, need, or desire to do something, the effort given to the task will be less than 100 percent.

> Mistakenly, motivation (behavior or cultural change), as it pertains to dealing with people, has come to mean that an external force must be applied before someone will do something. The fact is, when discussing motivation of people, the individual must have the desire to perform the task that is being asked of them. It is, therefore, an internal feeling, a raging fire already burning inside, trying to get out.

> In his book *Good to Great*, Jim Collins says that spending energy trying to motivate people is largely a waste of time for one simple reason—if the organizational culture is focused and the right people are in the right positions with everyone doing the right things, then people will be self-motivated. He also states that great companies pay little attention to motivating people or creating alignment, because under the right conditions, the problem with commitment, alignment, motivation, and resistance to change just disappear.

Remember the last eager new hire or volunteer that walked into the department on the first day? What did they look like? Were their eyes big, were they often smiling, and did they seem to possess huge amounts of energy? This person was motivated and ready to do anything you would have asked. What happens after a month, a year, or ten years? Is that energy still present? Where has that energy gone? Managers or administrators try hard to "motivate" people to regain that energy that was once overflowing. Why? The question is not "how do we motivate people?", but rather, "how did this person become de-motivated?"

Administrators believe that increased pay or trinkets will suddenly re-motivate. However, most studies show

that these efforts do not provide motivation, but rather satisfaction. There is a huge difference between the two. What keeps the fire burning is deeper than superficial, short-term incentives.

When a person loses their desire to perform or to go the extra mile, often it is not because of their lack of interest. Just like a fire that is not fed, he or she will slowly decrease in intensity, energy, and glow. Left alone long enough, the fire's embers cool. However, if a constant supply of the right kind of fuel is added at just the right time, that fire will burn forever. A fire does not have to be "motivated" to burn; it just burns. Most people are similar to this analogy. They have energy, they want to do things, they need to feel important, they want direction (which is not the same as being told what to do), and they want to belong to something successful. When these "motivators" are removed, the internal fire begins to cool. Standing and cheerleading in front of the fire is not going to make it burn brighter. Just the same, pep talks may inspire individuals to do something in the short-term, but the motivation - the call to action - comes from deep within each person. It is this feeling that needs to be stoked. The good news is that everyone has the capacity to stoke someone else's fire and get them to self-motivate or take action.

Motivating people to participate in and follow the rules of your department's emergency vehicle safe operations program is no different. Each individual has a stake in the importance of the program. Whether the motivation is a person's volunteer time, the department's reputation and apparatus/equipment, or, ultimately, his or her life, the drive is there to implement the emergency vehicle safe operations program and to gain the recognition the program provides. But greater than temporary praise or recognition offered by any program is the change in culture this program stresses. Emergency vehicle operators are committed to reducing needless intersection, road, and traffic accidents. It is now a matter of providing some principles that can reduce and eliminate poor safety practices. Each person has the self-motivation to get home safely after an emergency call.

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By knowing what inspires people, by understanding what makes an individual want to do what they do, and by establishing a culture of success, people will find a way to achieve the objectives established. They will rekindle that lost energy and put forth great amounts of effort. Successful organizations know that about their staff and, therefore, do not have to motivate people. People that are associated with great organizations are already motivated. In less successful companies, some work may need to be done to identify what it would take to rekindle the lost energy. It takes effort, but the payoff is more energy, more output, and a better feel for the staff and the organization.

Standard Operating Guidelines

n today's society, it is essential that all emergency service organizations develop, adopt, and implement standard operating procedures and guidelines. Concepts such as sovereign immunity (individual vs. government), have been significantly limited and narrowed by the courts.

Many of the federal, state, and provincial laws allow for suits against individual leaders of emergency service organizations. Terms such as "duty of care," "breach of omission or commission," and "joint and several liability" are entering the vocabulary of emergency services personnel. One important way to prepare for this challenge is to develop, adopt, and implement a comprehensive set of SOPs/SOGs.

During the process of compiling SOPs/SOGs, the difference between these two documents may become blurred. For instance, often the distinction between policy and procedure do not seem so clear. Policy is different from SOPs/SOGs. All procedures and guidelines come with policy. Policy should be viewed as the attitude, philosophy, and intent of top management to the organization's personnel. It provides a framework and guidance to the organization's personnel in making decisions. To aid in the development of SOPs/SOGs, understanding specific definitions of terms is essential.

Policy - A guiding principle or course of action adopted toward an objective or objectives. Describes the general principle that will guide behavior or a definite course or method of action to guide and determine present and future decisions.

Procedure - Prescribes specific ways of doing specific activities and regulates the formal steps into an action. It provides a series of steps followed in a particular order.

Guideline - A statement, indication, guide, or outline of policy used to determine a current or future course of action.

Regulation - A rule or order prescribed by authority to regulate conduct.

Rule - A principle set up by authority that prescribes or directs action or forbearance.

Example:

Policy - Go from Point A to Point B.

Procedure - Begin at Point A and go to Point B by following the prescribed directions.

Guideline - Begin at Point A and go to Point B. Does not give explicit directions as a procedure.

Rules and Regulations - Do not cross any line and do not backtrack.

In the evaluation of policy, it is essential to obtain input from the organization's members. The following are questions that should be considered regarding policy:

- > Is it founded on sound judgment?
- > Is it reasonably attainable?
- > Is it within legal and/or regulatory boundaries?
- > Is it definite, positive, and clear?
- > Does it need further definition or explanation to those affected?
- > Is it applicable to all organizational units?
- > Is it flexible?
- > Should it be flexible?
- > Does it reflect the general thinking and enforcement philosophy of all levels of personnel?
- > Will (or must) it be supported by procedures, guidelines, rules, and regulations?
- > Can it be enforced?
- > Will it be enforced?

Conducting a Needs Assessment

Whether it is the starting point or part of the process, the SOP/SOG process should include a needs assessment. Every emergency service organization should periodically conduct a formal review of SOPs/SOGs. These assessments should be conducted by a task force/committee of organizational members representing all ranks and possibly other agencies (e.g. an attorney or policy analyst from the local government). The product of this formal review results in a document to be used as a "roadmap" for developing SOPs/SOGs.

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The needs assessment process must be consistent and systematic. The product should include a written analysis of current SOPs/SOGs, recommendations, the rationale for changes (if any), any priorities, and a plan for action. Although major changes in legal and/or operational requirements will prompt a formal needs assessment, the process should be performed annually to help keep SOPs/SOGs current and valid.

While prioritizing, it is important to remember that SOPs/SOGs must reflect reality. Creating SOPs/SOGs that cannot be implemented with existing resources serves little purpose and may create a safety hazard. Revisions to critical health and safety SOPs/SOGs should receive a high priority in the action plan since they influence the health and safety of responders and the effectiveness of operations.

Formulation Procedure

Decrees issued from those in charge may not receive widespread support. It is not realistic to expect the members of an emergency service organization to enthusiastically support SOPs/SOGs when they are formulated and issued without member support and involvement. However, the formulation procedure can be an integral component in having the SOPs/SOGs be effective and realistic, as well as supported.

Although the exact methods used to develop SOPs/SOGs will vary, certain strategies will help define a successful process. The needs assessment process establishes the foundation for the SOP/SOG development effort. Various organizations have found the following recommendations very effective in developing and implementing SOPs/ SOGs:

- > Inform the membership of the need to develop, adopt, and implement SOPs/SOGs and how the process should be undertaken.
- > Build the development team. Commit to utilizing task forces, committees, or guideline groups involving the members of the organization.

SOPs/SOGs are most effective when members of the organization are included in the development process.

As a general rule, organizations should get input from all groups potentially affected by the SOPs/SOGs.

A key variable in determining success or failure during implementation is keeping the product "user friendly." The following are some suggestions to help attain this goal:

- > Level of detail: SOPs/SOGs should provide only broad procedural guidelines.
- > Clarity and conciseness: SOPs/SOGs must be clear, concise, and written in plain English. Clear and simple statements using language that members can easily understand are the best way to describe actions in SOPs/SOGs.
- > Target audience: Generally, SOPs/SOGs should be written to address the needs and educational level of the majority of the organization members.
- > Flexibility and ambiguity: To be effective, SOGs must be clear and concise. An organization's SOGs should be precise but inherently flexible, permitting an acceptable level of discretion that reflects the nature of the situation and the judgment of the incident commander.

A related issue involves the use of the terms "shall" and "may" when writing SOPs/SOGs. Personnel generally consider an action preceded by the word "shall" to be an inviolate rule (SOP), while using the term "may" implies greater flexibility and discretion by personnel (SOG).

SOPs/SOGs are not training manuals. They are broad organizational guidelines for performing tasks that members have been trained to accomplish safely and effectively.

A standard format for SOPs/SOGs helps streamline the writing process. Different formats may be used for SOPs/ SOGs depending on the intended audience and purpose. Several items are usually included in a SOP/SOG:

- > Numbering system
- > Effective date
- > Expiration/review date
- > Title
- > Description of purpose or rationale statement

- > Authority signature(s)
- > Scope
- > General procedures
- > Specific procedures
- > References

Periodic Review

SOPs/SOGs are not static documents — they should be regularly reviewed and updated. This is not to suggest that every SOP/SOG should always be changed annually but that each one should be checked for updating, correcting, fine-tuning, or otherwise changing if necessary. The procedure of having the SOPs/SOGs reviewed and revised is more important than how many SOPs/SOGs are changed. Change just for the sake of change is not recommended. Personnel become familiar and comfortable operating under established procedures/guidelines.

Evaluation is not the same as performance monitoring. The purpose of performance monitoring is to make sure that personnel comply with the SOPs/SOGs and perform them correctly. In effect, performance monitoring asks, "Are we doing things right?"

Evaluation, on the other hand, looks at the same employee action, but asks, "Are we doing the right thing?" The goal in this case is to assess and redesign the SOPs/SOGs. Most organizations strive to review SOPs/SOGs annually. If the resources are available, this is desirable. Many smaller organizations conduct an annual review but only cover one-half of the SOP/SOG manual. This provides a biannual review and individual SOPs/SOGs are changed when it becomes necessary.

This section depicts examples of the potential content for SOPs/SOGs for aspects of emergency services operations. It is by no means inclusive on all needs AND SHOULD NOT SIMPLY BE COPIED AND ADOPTED. Use this example to improve or develop your department-wide SOPs/SOGs.

The following example Standard Operating Guidelines are included for your review:

- > Backing Apparatus
- > Collision Investigation
- > Crash & Injury Investigation
- > Driver Qualifications
- > Driver Selection
- > Drug & Alcohol Policy
- > Highway Safety
- > Intersection Navigation
- > Limitations of Warning Devices
- > Motor Vehicle Record Check
- > On-The-Quiet Response
- > Priority Dispatching
- > Reflective Striping and Roadway Vests
- > Regulatory & Statute Compliance
- > Responding in Private Vehicle
- > Routine Maintenance
- > Safe Driving Award Program
- > Seat Belt Use Policy
- > Speed Limitations
- > Traffic Preemption
- > Vehicle Design & Construction
- > Vehicle Inspection
- > Vehicle Safety Program Management

All of the Key Points to Consider/Include and other suggestions provided here are basic points to consider, but your own organizational characteristics or needs must also be taken into consideration.

Backing Apparatus

PURPOSE:

To ensure vehicle is safely moving when operating in reverse mode.

SCOPE:

All personnel.

RESPONSIBILITY/RATIONALE:

It is the primary responsibility of the driver and officer to ensure the vehicle is safely moving in a reverse position, to prevent death, injury, and property damage.

- > When backing the apparatus, there must be a spotter.
- > When backing, the vehicle will be under the direction of the person at the back of the vehicle, who is in the sight of the driver.
- > Operator will respond to all directions made by the person directing the backing of the vehicle. Do not operate the vehicle unless the "backer" is in sight.
- > Take a three-dimensional look while backing to assure overhead obstructions are identified.

Collision Investigation

PURPOSE:

To provide a process to investigate and record all collisions and near misses involving organization vehiclerelated incidents (departmental or personal). (A near miss incident is defined as an incident in which no property damage and no personal injury occurred, but where, given a slight shift in time, position, or other circumstances, damage or injury would or may have occurred.)

SCOPE:

All personnel.

RESPONSIBILITY/RATIONALE:

To investigate each incident/near miss to determine the cause in order to prevent similar future incidents and reduce death, injury, and property loss. This supplements any local/law enforcement issues and is for internal use intended for quality control and training to make the ESO safer.

- > Educate staff as to purpose of investigative need.
- > Who will conduct the investigation?
- > What questions will be asked?
- > What form will be used (attach a copy to your procedure)?
- > What should be done as a result of the investigation?
- > Who is responsible for follow up?
- > Who is responsible for date tracking?
- > Who will act (and on what) with comprehensive data developed?

Crash & Injury Investigation

PURPOSE:

The purpose of this policy is to provide guidance on investigating crash/incidents.

SCOPE:

All personnel.

POLICY:

It is the policy of the ESO to investigate most apparatus and privately-owned vehicles (POVs) crashes and incidents (POVs while on ESO business). The senior officer available will determine the necessity of a full or condensed incident investigation. This decision is somewhat subjective but must err toward the conservative of a full investigation process. A condensed investigation is considered an exception to the rule.

Guidelines for requiring a full investigation are:

- > Estimated damage greater than \$750 (insurance deductible is \$1,000)
- > A damaged vehicle that cannot be transported under its own power
- > The member-driver receives a traffic citation
- > Other extenuating circumstances
- > Injuries that require medical treatment
- > Incidents that result in significant property damage
- > Any other crash at the discretion of the senior officer present

An investigation will begin within 48 hours of the incident and will be concluded within seven days of the incident. The investigation report will detail the root causes of the crash, a corrective action plan that will help prevent similar occurrences in the future, and recommendations for disciplinary action if necessary.

PROCEDURES:

Vehicular Crashes:

The driver of the vehicle must provide a verbal report to the senior officer available as soon as possible. Failure to notify will result in an immediate 30-day suspension from the department.

If the incident occurs during a response, consideration must be given to completing the response, but it is not a requirement. Normal information exchange must occur between the ESO personnel and the affected public.

Immediately after the incident (or as soon as possible), the driver of the ESO vehicle will be suspended from driving ESO apparatus and the use of POV emergency equipment until the crash receives a preliminary investigation and a decision is made to allow or disallow driving. The senior officer available usually performs this investigation as long as he or she is not directly involved in the incident.

The driver of the vehicle involved in the incident must complete a written report within six hours of the incident and submit to the senior officer available.

Injury Incidents:

The immediate priority after an injury incident will be the appropriate treatment of the injured person(s).

All fire ground injuries must be reported to the Incident Commander and/or senior officer present as soon as possible. Other injuries obtained while on your ESO business or on your ESO premises are to be reported to the senior officer available.

Investigation:

The senior officer available will appoint an ad hoc investigative committee within two days of the incident. The committee will consist of that senior officer (unless that officer was involved or is a direct witness), the departmental safety officer if available, and a representative group of three additional personnel (one from each station). If the senior officer available was involved, then the next most senior officer available will assume responsibility for the investigation.

The investigation committee will gather any and all information necessary to determine the cause(s) of the incident and to determine what measures are necessary to prevent similar occurrences in the future. If the incident is deemed preventable, the committee will also determine appropriate suspension, termination, and/or training attendance that may be necessary for those involved.

A preliminary report of the investigation findings will be prepared. The report will include a description of the incident, the immediate and root cause(s), and the corrective actions deemed appropriate. A diagram of the incident should be included if it will add clarity to the investigation. The elected officers will assign primary ownership for completion of the corrective actions. Closure of the corrective actions and supporting documentation (if any) will be included in the final report. Final crash reports will be maintained in a crash file and, if appropriate, in the individual personnel files of those involved.

Driver Qualifications

PURPOSE:

To set forth qualifications and requirements to be a driver of fire apparatus for the ESO. (The driver of the vehicle may be someone other than the emergency service apparatus operator and this may require an additional SOP/SOG for the ESO).

SCOPE:

All personnel who drive the ESO's vehicles.

RESPONSIBILITY/RATIONALE:

To become a qualified driver/operator for the ESO, a person must meet these qualifications to help prevent death, injury, and property loss.

- > Time/length of service in organization
- > Experience as firefighter/EMT/etc.
- > Possession of valid drivers license for type of vehicle being driven
- > Response volume percentage
- > Completion of organization Driver Training Program
 - Knowledge
 - Skills
 - Complete EDVT course
 - Complete Over the Road course
- > Authorization from appointed ESO official
- > Federal, state, and local laws and regulations
- > Motor Vehicle Record (MVR) checks
- > Current physical exam
- > Recertification

Driver Selection

PURPOSE:

To establish guidelines for selecting drivers of department-owned and personal vehicles.

SCOPE:

All drivers of department-owned vehicles and personal vehicles.

RESPONSIBILITY/RATIONALE:

To reduce death, injury, and property loss.

KEY POINTS TO CONSIDER/INCLUDE: Selection Process

- > Physical requirements and evaluation
- > Age requirements
- > Drivers license
 - Annual department review
 - Motor vehicle reports
 - Prior to starting training
- > Loss of department driving privileges
 - Types of violations
 - Progressive discipline
 - Verbal warning
 - Written warning
 - Suspension
 - Discharge
 - Review process
 - Accident investigation
- > Personal vehicles
 - Use of lights and sirens
 - Inspection and maintenance
 - State requirements
 - Insurance
- > Completion of Emergency Vehicle Operator course

Drug & Alcohol Policy

PURPOSE:

To eliminate the use and/or influence of drugs and alcohol through education, rehabilitation, and supervision techniques and to raise awareness of the adverse effects on driving of some prescription and over-thecounter medications.

SCOPE:

All personnel.

RESPONSIBILITY/RATIONALE:

To understand the impact of the use of alcohol and drugs (both legal and illegal) upon the individual organization and general public and to prevent death, injury, and property damage.

- > Informing employees about drug/alcohol testing
- > Supervisor education
- > Testing process
- > Sample collection
- > Drug/alcohol testing
- > Medical review by physician
- > Laboratory results
- > Pre-employment screening
- > Rehabilitation
- > Awareness of possible side effects of prescription and over-the-counter medications
- > Conflicts with other laws
- > Transportation
- > Review procedures
- > EAP programs
- > Confidentiality

Highway Safety

PURPOSE:

To establish the guidelines for protection of personnel, motorists, and incident victims at all highway incident scenes.

SCOPE:

All personnel.

RESPONSIBILITY/RATIONALE:

To make personnel highly visible in all weather and light conditions, to position warning devices and apparatus to provide advance warning to motorists, and to provide as much protection as possible for all emergency responders present at a highway incident. This guideline is needed to prevent death, injury, and property damage.

- > Wearing of American National Standards Institute (ANSI) approved reflective clothing by all personnel on scene
- > Placement of warning devices and traffic channeling devices by first-in apparatus
- > Positioning of first-in apparatus
- > Placement of additional warning signs and traffic channeling devices by later-arriving apparatus
- > Placement of later arriving apparatus
- > Staging
- > Communication coordination between all agencies involved
- > Prior planning with all agencies that may potentially be involved
- > Scene lighting
- > Unified command system
- > Coordinate training and SOG/SOP development with other emergency responders, e.g., law enforcement, tow operators
- > Educate law enforcement of the necessity to protect emergency responders
- > Minimize personally operated vehicle response as much as possible

Intersection Navigation

PURPOSE:

To establish procedures and guidelines for the safe operation of all ESO vehicles and apparatus when negotiating intersections.

SCOPE:

All personnel.

RESPONSIBILITY/RATIONALE:

It is the responsibility of all personnel and associated parties to adhere to this policy to prevent death, injury, and property damage. The largest percentage of major accidents involving emergency vehicles happens at intersections. Even with the use of warning devices, intersections pose a serious threat to the safety of both emergency services personnel as well as the public.

KEY POINTS TO CONSIDER/INCLUDE:

Controlled Intersections:

Any intersection controlled by a stop sign, yield sign, yellow traffic light, or a red traffic light requires prudent action by the emergency vehicle driver. The following steps should be followed:

- > Do not rely on warning devices to clear traffic.
- > Scan the intersection for possible hazards (right turns on red, pedestrians, vehicles traveling fast, etc.) as well as driver options.
- > Begin to slow down well before reaching the intersection and cover the brake pedal with the driver's foot, continuing to scan in four directions (left, right, front, back).
- > Change the siren cadence at least 200 feet from the intersection.
- > Scan intersection for possible passing options (pass on right, left, wait, etc.) and avoid using the opposing lane of traffic if at all possible.
- > If all visible traffic in all lanes cannot be accounted for, the driver should bring the vehicle to a complete stop. If the driver proceeds past a control device stop sign/red light with a negative right-of-way without coming to a complete stop, both the driver and officer should be required to complete an incident report providing an explanation of the circumstances that permitted them to do so.
- > Establish eye contact with other vehicle drivers, have partner communicate all is clear, and reconfirm that all other vehicles are stopped.
- > Account for one lane of traffic at a time treating each lane of traffic as a separate intersection.

Railroad Intersections:

Any time an emergency vehicle driver approaches an unguarded rail crossing, the driver shall bring the apparatus or vehicle to a complete stop before entering the grade crossing. In addition, the driver shall perform the following actions prior to proceeding:

- > Turn off all sirens and air horns.
- > Operate the motor at idle speed.
- > Turn off any other sound producing equipment or accessories.
- > Open the windows and listen for a train horn.

Uncontrolled Intersections:

When approaching any intersection that does not offer a control device (stop sign, yield, or traffic signal) in the emergency vehicle's direction of travel or where a traffic control signal is green upon the approach of the emergency vehicle, all emergency vehicle drivers should do the following:

- > Scan the intersection for possible hazards (right turns on red, pedestrians, vehicles traveling fast, etc.).
- > Observe traffic in all four directions (left, right, front, rear).
- > Slow down and cover the brake pedal with the driver's foot.
- > Change the siren cadence not less than 200 feet from intersection.
- > Avoid using the opposing lane of traffic if possible.

Emergency vehicle drivers should always be prepared to stop. If another vehicle operator fails to yield the right of way to an emergency vehicle, the emergency vehicle driver should not try to force the right of way, nor should he or she assume the right of way. You do not have the right of way until the other vehicle yields to you.

Limitations of Warning Devices

PURPOSE:

To establish a policy on the use and limitations of warning devices.

SCOPE:

All personnel.

RESPONSIBILITY/RATIONALE:

It is the responsibility of emergency vehicle operators to reduce death, injury, and property damage.

- > Rights vs. privilege
 - The difference between a "right" and a "privilege"
 - What responsibility is carried
- > Laws, SOGs, standards
 - What is stated in the law
 - Review your SOGs
 - NFPA 1500/1002/1250
- > Types of warning devices
 - Siren
 - Warning lights
 - Other warning devices, such as car horn or air horn
- > Pitfalls of relying on warning devices
 - Failure to yield by another driver
 - Why drivers fail to yield
- > Define an emergency
- > Non-emergency response
- > Siren capability
- > Statutes controlling emergency vehicle lighting

Motor Vehicle Record Check

PURPOSE:

To establish a procedure for motor vehicle operator record checks for drivers/operators.

SCOPE:

All personnel.

RESPONSIBILITY/RATIONALE:

Department officers should conduct routine administrative reviews of all drivers' motor vehicle records (MVRs) to provide for safe operation of department motor vehicles. Knowing your drivers' on- and offduty driving habits and records is an important tool in both selecting and maintaining the safest drivers for your emergency vehicles.

- > Driver MVR checks should be performed prior to the start of driver training.
- > MVR should be checked annually or, minimally, every three years and a copy retained in each member's personnel file.
- > If MVR are not checked annually then the following items should be checked annually:
 - 1. Validation of a current motor vehicle driver's license.
 - 2. Proof of insurance on private vehicle.
 - 3. Retain copies of above in personnel file.
- > MVR review criteria:
 - > Class A Violation (definitions follow)
 - Any individual who has a Class A violation within the past three (3) years normally receives a license suspension from the Department of Motor Vehicles. ESOs should consider suspension of department vehicle driving privileges for 18 months or the length of state license suspension. No driver should be permitted to drive without a license. Driver must attend an approved driver-improvement program or equivalent training and be required to get recertified to operate emergency apparatus.
 - > Class B Violation (definitions follow)
 - Any individual who has a combination of two (2) Class B moving violation convictions and/or chargeable accidents in a three (3) year period should be issued a warning letter from the fire chief or administrative officer.
 - Any individual who has a combination of three (3) Class B moving violations and/or chargeable accidents in a three (3) year period will be issued a suspension of department apparatus driving privileges for a period of ninety (90) days by order of the fire chief or administrative officer.

- Any individual who has more than three (3) moving violations and/or chargeable accidents or any combination of more than three (3) formerly stated violations in a three (3) year period will be issued a suspension of department vehicle driving privileges for a period of one (1) year. In addition, the same individual is required to complete an approved driver improvement program and be recertified to operate emergency vehicles.
- NOTE: Unusual circumstances in individual cases would be evaluated on a one-to-one basis.

Violations definitions: Class A

- > Driving while intoxicated
- > Driving under the influence of drugs
- > Negligent homicide arising out of the use of a motor vehicle (gross negligence)
- > Operating any licensed vehicle during a period of suspension
- > Using a motor vehicle for the commission of a felony
- > Aggravated assault with a motor vehicle
- > Operating a motor vehicle without owner's authority
- > Permitting an unlicensed person to drive
- > Reckless driving
- > Hit-and-run driving

Class B

> All moving violations not listed as Type A violations (i.e. exceeding the posted speed limit)

NOTE: There may be state/local privacy and permission issues that need to be evaluated before implementing this policy. For example, the state Department of Health might have regulations pertaining to EMS vehicles. Check with your locality and state regarding laws involving emergency vehicle operator suspension.

On-The-Quiet Response

SCOPE:

There are specific types of incidents that, by their nature, are not threatening to life or property. These types of incidents are to utilize an "on-the-quiet" response.

RESPONSIBILITY/RATIONALE:

All personnel and all vehicles.

POLICY:

"On-the-quiet" responses are to be used in compliance with local jurisdiction regulations, which range from automatic alarm system activations to vehicles leaking fuel and other incidents where local experience suggests a response is necessary, but not at emergency speed or procedure. The types of incidents to which an "on-the-quiet" response are recommended is totally dependent upon local decision.

No audible or visual warning signals are to be used.

Upon notification that the incident is indeed an emergency, vehicles should proceed in standard emergency response fashion.

Priority Dispatching

PURPOSE:

To prioritize the response of emergency service units to ensure maximum utilization of resources and ensure units are responding in a mode that corresponds with the prioritization level of the emergency request.

SCOPE:

All personnel.

RESPONSIBILITY/RATIONALE:

It is the responsibility of all personnel and associated parties to adhere to this policy in order to prevent death, injury, and property damage.

POLICY:

Certification in an approved ED program:

Public Safety Answering Points (PSAP) shall confirm that call takers are certified under a recognized ED program and are offered the required recertification and continuing education to fulfill the needs of the certification.

Regional EMS and Fire Protocols:

Regional Medical Advisory and Fire Service Committees shall ensure present dispatch guidelines adhere to and practice recognized ED standards. Protocols, guidelines, and policies must all follow established standards and response procedures.

Systemized caller interrogation process:

Call intake should be methodical, standardized, and without deviation from recognized ED program standards. Call takers shall not deviate from established protocols for any reason not clearly defined in the call taking process.

Systemized pre-arrival medical instructions:

The provision of standardized pre-arrival medical instructions is critical to an ED program. Positive patient outcome is very dependent on the provision of basic instructions and medical assistance.

Tiered EMS responses:

The appropriate utilization of EMS resources is highly dependent on the ED process. Use of ALS units for BLS responses, dual dispatch of ALS and BLS units for single patient events, and fire service first response are examples of situations in which resources could be better utilized. The triage of calls, the assigning of case specific EMS units, and the inclusion of First Responders are all critical aspects of a tiered system.

Quality assurance/case review process:

Emergency service agencies shall incorporate into present quality assurance programs a mechanism in which PSAPs are a vital aspect. On a regular basis, services shall review responses and cross-reference the priority response level assigned to the call. Records shall be maintained and utilized for the overall im-

provement of the system. Emergency services shall be provided with a defined chain of command/liaison with the County PSAP with the intention of reviewing cases and continuously improving the systems efficiency.

CLASSIFICATION OF RESPONSES (EMS BASED):

This section reflects the most common priority code system. Some departments may use alternate systems.

Alpha - Emergency response: No lights/no sirens. BLS Solitary response.

Bravo - Emergency response: Lights/sirens.

Charlie - Emergency response: Lights/sirens.

Delta - Emergency response: Lights/sirens.

Echo - Emergency response: Lights/sirens.

NOTE: Fire department activity responses will be assigned Alpha responses unless there is confirmed injury/entrapment. Behavioral emergency responses shall be assigned Alpha responses unless call-taking information dictates a higher priority response.

Alpha responses: In the case of responses assigned the "Alpha" response, EMS units, though still responding in the immediate mode, shall respond without the use of warning lights and/or audible devises. This response mode does not change the fact the unit is responding to an emergency, it simply suggests the mode in which the unit physically responds to the scene of the emergency.

Call dispatch: On the initial dispatch of an emergency call, call takers/communication technicians will ensure the following information is included in the dispatch:

- > Station/units assigned to the response
- > Location of the emergency
- > Nature of the emergency
- > Response mode assigned as determined by the ED program/process
- > Any additional/pertinent medical information relayed by the caller or responding agencies on scene.

CALL DOWNGRADING/UPGRADING:

Crews, on their response, shall be provided with additional information based on information available to the PSAP. Field crews shall not make decisions to alter a response mode based on personal suspicion or belief. Responding units may consider altering response mode based on additional information provided by the PSAP or information relayed from police, fire, or other EMS agencies on scene. Based on this information, the PSAP will, if required, alter the response mode and alert responding units.

Call/unit rerouting: During periods of high call volume or multiple responses within specific jurisdictions, ONLY the PSAP shall have the control over re-routing units to higher/lesser priority assignments based on demand, unit availability, and status of responding units (ALS versus BLS).

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Reflective Striping and Roadway Vests

PURPOSE:

To provide guidance for proper protection of personnel and equipment while on the scene of an incident through visibility utilizing reflective striping; and to reduce the risk of injury or death to personnel and to reduce damage to company vehicles while working in or near traffic.

SCOPE:

All personnel.

RESPONSIBILITY/RATIONALE:

To prevent death, injury, and property damage.

KEY ITEMS:

The following are basic key points to consider and should be supplemented with your own organizational characteristics or needs.

POLICY:

All personnel will don personal protective equipment (PPE) (coats, vests, pants) that meet or exceed the minimum requirements of reflective striping as established by the American National Standards Institute (ANSI)/International Safety Equipment Association (ISEA) 107 and the U.S. Department of Transportation's (DOT) Manual on Uniform Traffic Control Devices (MUTCD) Section 6E.02.

The ANSI/ISEA 207-2006 public safety vest standard was created in response to public safety user group demand for a high visibility safety vest garment differentiated from ANSI/ISEA 107-2004 compliant apparel. The primary distinction of the ANSI 207 standard is that the required fluorescent background material falls between ANSI 107 Class 1 and ANSI 107 Class 2.

On November 24, 2008, a provision in the MUTCD went into effect requiring public safety officers, including volunteer firefighters and EMS personnel responding to an incident in the right-of-way of a federal aid highway, to wear a safety vest that meets the Performance Class II or III requirements of the ANSI/ ISEA 107-2004 publication. There is an exception for firefighters directly engaged in fire suppression, as the vests may catch fire or melt if exposed to flame.

Minimum requirements for ANSI/ISEA compliant garments include use of fluorescent yellow-green, orange-red, or red background material with 360 degree retroflective visibility. Garments should be labeled as compliant with ANSI/ISEA 107-2004 or ANSI/ISEA 207-2006.

All apparatus will meet or exceed the reflective striping standards of the current edition of NFPA 1901.

All barrier or directional devices will meet or exceed the MUTCD and the Federal Highway Administration's (FHWA) standards for reflective striping.

Definitions:

Class I - safety vests when traffic speeds are less than 25 mph, workers are separated from approaching traffic, and workers can give full attention to the traffic.

Class II - safety vests when traffic speeds exceed 25 mph, work takes place in or near moving traffic or during inclement weather, and workers' attention is occasionally diverted from traffic.

Class III - work environment is high task load, wide range of weather conditions, traffic can exceed speeds of 50 mph, the nature of the work forces the worker to utilize full range of motion, and workers' attention must be focused on the task.

Level I - high visibility

Level II - high visibility and flame retardant

Level III - high visibility, flame retardant, and electric-arc-resistant burn protection Helmets with reflective trim material that covers all sides shall be worn while emergency service personnel are working in or near moving traffic.

Personal Protection:

MUTCD states that all workers shall wear bright, highly visible clothing when working in or near moving traffic. ANSI/ISEA 107 and 207 recommends specific types of reflective equipment be worn while working in or near moving traffic such as the following:

- Emergency responders shall wear Class III Level III PPE garments while involved in vehicle extrication, fire suppression, accident clean up, or incident investigation that subjects ESO personnel to moving traffic.
- 2. Emergency responders who are involved in medical triage and stabilization and all other support functions are required to wear Class III Level II PPE.

Emergency Response Vehicles (Per NFPA 1901):

- Reflective striping is required around all four sides of the vehicle. The stripe or combination of stripes must be at least 4 inches high and cover at least 50 percent of the cab and body length on each side, 50 percent of the rear width, and 25 percent of the front width.
- 2. A reflective graphic design, such as a door shield or lettering, may replace a part of the required length or width.

Traffic Cones:

Traffic cones guide the direction of traffic flow around an incident. Any traffic cone used at night or at an incident where traffic speeds exceed 45 mph must meet the following criteria:

- 1. Be 28 inches tall
- 2. Have two 3-inch retro-reflective bands around the top and a maximum of 6 inches between bands
- 3. Be orange in color

Vertical Panels:

Apparatus chevron striping can be used to warn and direct traffic away from a highway incident. All vehicles that are utilized in this manner shall comply with MUTCD Section 6F.57.

The chevron pattern shall slant downward on both sides of the vehicle at an angle of 45 degrees, pointing in the direction of the bottom rear corner of the tailboard. The pattern should resemble an inverted V with the point at the top and center of the apparatus.

- 1. The following alternating color patterns may be used:
 - 1. Red and yellow
 - 2. Orange and white
 - 3. Red and white
 - 4. Blue and yellow
 - 5. Blue and white.
- 2. Vertical panels must meet these standards:
 - 1. 8 to 12 inches wide and at least 24 inches in height
 - 2. Use alternating colors of retro-reflective stripes at least 4 inches in width. If the panel height is greater than 36 inches, the stripes must be 6 inches wide
 - 3. Sloped down at 45 degrees and have a minimum of 270 square inches of retro-reflective area facing traffic.

REFERENCES

United States Department of Transportation Federal Highway Administration's Manual on Uniform Traffic Control Devices, Section 6E.02

Occupational Safety and Health Administration (29 CFR 1926.200 through 29 CFR 1926.203) NFPA 1901 - Automotive Fire Apparatus Standard 2003 American National Standard for High Visibility Safety Apparel 107 American National Standard for High Visibility Safety Apparel 207

Regulatory & Statute Compliance

PURPOSE:

To ensure knowledge and compliance with state and federal statutes and with local/departmental regulations governing operation of emergency vehicles.

SCOPE:

All personnel.

RESPONSIBILITY/RATIONALE:

Chief officers, safety officers, and training officers should teach and enforce compliance. All drivers/operators are also individually responsible for complying with driving regulations and statutes in order to prevent death, injury, and property damage.

- > Appropriate driver licensing
- > POV insurance
- > SOPs/SOGs
- > Driver training
- > Appropriate use of warning devices
- > Speed limitations
- > Hazards of impaired driving
- > MUTCD requirements
- > Vehicle code exemptions for emergency vehicles
- > State vehicle driving laws pertinent to emergency vehicles
- > Review components of NFPA 1250, 1002, 1901, 1911, 1912, 1915, and 1500 for additional items to consider

Responding in Private Vehicle

PURPOSE:

To establish guidelines governing the response to department events/incidents in POVs.

SCOPE:

All personnel.

RESPONSIBILITY/RATIONALE:

Personnel must operate their POV in a safe and prudent manner when traveling to and from incidents, the station, meeting locations, etc., to reduce deaths, injury, and property damage. Personnel must use seat belts while operating POVs.

- > Respond to the station or to the incident location per fire department protocol
- > Exceptions for officers (however, officer should lead by example)
- > When responding consider:
 - Traffic laws and any related immunities
 - Use of warning devices, such as emergency warning lights and sirens (if permitted)
 - Use of seat belts
 - Courtesy practices to other drivers
 - Proper parking at emergency services locations
 - School buses/highway restrictions
 - Calls outside primary fire zone
 - Potential liability for accidents
 - Action if violation occurs
 - Loss of driving privileges
 - Loss of fire department privileges

Routine Maintenance

PURPOSE:

To ensure that vehicles are well maintained so that they may respond safely and perform efficiently at the emergency scene.

SCOPE:

Maintenance personnel and vehicle drivers/operators.

RESPONSIBILITY/RATIONALE:

It is the responsibility of chief officers, company officers, drivers, and maintenance staff to prevent death, injury, and property damage.

- > NFPA 1915, Standard for Fire Apparatus Preventive Maintenance Program
- > NFPA 1002, Standard on Fire Apparatus Driver/Operator Professional Qualifications
- > NFPA 1911, Standard for Service Tests of Fire Pump Systems on Fire Apparatus
- > NFPA 1914, Standard for Testing Fire Department Aerial Devices
- > Develop maintenance SOG, including "out of service" criteria
- > Develop routine maintenance forms, routing system, and follow-up requirements
- > Develop SOP for reporting irregularities
- > Develop maintenance follow-up program
- > Perform maintenance at regular intervals, time periods, hours, or fuel consumption amounts, etc. following SOG/SOP
- > Knowledge of manufacturer's specifications
- > Document all maintenance
- > Responsibilities of the driver

Safe Driving Award Program

PURPOSE:

To establish a safe driving program.

SCOPE:

All personnel.

RESPONSIBILITY/RATIONALE:

It is the responsibility of all personnel to prevent death, injury, and property damage.

- > What is safe driving and why should we care?
- > Awards committee
- > Guidelines
- > What are best practices?
- > Seatbelt use
- > Low force driving
- > Space management
- > Speed
- > What is a collision (or vehicle contact)?
- > What is a near miss?
- > Program rules
- > Who is eligible to participate?
- > How do you accumulate points towards rewards?
- > What are the rewards?
- > Provide immediate constructive feedback
- > Provide awards to the drivers
- > Departments should check local, state, and federal guidelines regarding gaming, cash prizes, and tax reporting before granting incentive prizes.

Seat Belt Use Policy

PURPOSE:

To establish positive behavior regarding the use of safety belts when operating or riding in a vehicle.

SCOPE:

All personnel.

RESPONSIBILITY/RATIONALE:

To ensure a culture of buckling up seat belts before any vehicle movement occurs in order to prevent death, injury, or property damage.

- > Remain seated and belted anytime the vehicle is in motion.
- > Buckle up before the vehicle moves.
- > Use belts whether in personal vehicle or department vehicle.
- > In most states, it is the law to wear seat belts while operating a vehicle.

Speed Limitations

PURPOSE:

To establish practices that limit the speed of vehicles to that which allows the driver/operator to maintain safe control of the vehicle at all times.

SCOPE:

All personnel.

RESPONSIBILITY/RATIONALE:

To have all personnel understand that operating a vehicle above safe speeds greatly increases the probability of an accident. To prevent death, injury, and property damage.

- > State laws on vehicle speeds
- > Exemptions to state laws
- > Impact of exercising exemption to state law
- > Speed limitations for each vehicle and reasons why
- > Technical reasons for limiting speed
- > Weather condition considerations
- > Vehicle weight, reaction time of driver, and stopping distance
- > With advent of early warning systems, the need to rush to fires has dramatically diminished
- > Review NFPA 1500, Chapter 6: Fire Apparatus, Equipment, and Drivers/Operators

Traffic Preemption

PURPOSE:

To make responses by emergency vehicles safer and more timely, the jurisdiction has committed to installing and maintaining traffic preemption systems at various signalized controlled intersections throughout the jurisdiction.

SCOPE:

All vehicle operators and officers.

RESPONSIBILITY/RATIONALE:

To use the traffic preemption system on all dispatched emergency responses and when transporting all emergency class patients to medical facilities in order to prevent death, injury, and property damage.

- > When warning lights/sirens are activated, use traffic preemption devices.
- > Turn off the traffic preemption emitter and warning devices when ordered to "reduce speed" or any order that means there is no longer an emergency.
- > The emitter is not to be used during non-emergency functions, e.g., parades, community functions, store/food runs, etc.
- > All personnel qualified to drive vehicles with emitters must attend training before operating a vehicle with an emitter.
- > Use of the emitter system DOES NOT GUARANTEE OR GRANT right-of-way.
- > Install the emitter device so that it will automatically turn off when transmission is in the park position or when the vehicle braking system is applied.
- > All emitters must have on/off switch to allow unit to be turned off (for example: when vehicle is in a parade).
- > There should be a method for checking the system periodically to ensure it works.

Vehicle Design & Construction

PURPOSE:

To develop, per NFPA standards, operational uses and performance requirements for new apparatus, which will allow the manufacturer to engineer the apparatus. To develop a list of equipment that will be carried.

SCOPE:

Specification Committee.

RESPONSIBILITY/RATIONALE:

It is the primary responsibility of the fire chief, specification committee, safety officer, training officer, purchasing agent, maintenance personnel, and drivers to prevent death, injury, and property damage.

KEY POINTS TO CONSIDER/INCLUDE:

- > Form an apparatus committee
- > Perform a needs assessment of the community and mutual aid capabilities
- > Only develop use and performance requirements
- > Have manufacturer engineer and design vehicle
- > Consider safety devices such as airbags; warning, scene, and ground lighting; non-slip working surfaces; vehicle striping; heavy equipment placement; automatic tire chains; etc.
- > Chassis and manufacturer options
- > Follow GSA Ambulance Standard KKK-A-1822 for ambulance units

Follow NFPA guidelines:

- > NFPA 1901: Standard for Automotive Fire Apparatus and "Apparatus Purchasing Specification Form" Appendix B
- > NFPA 1906: Standard for Wildland Fire Apparatus
- > NFPA 1911: Standard for the Inspection, Maintenance, Testing, and Retirement of In-Service Automotive Fire Apparatus
- > NFPA 1912: Standard for Fire Apparatus Refurbishing

Vehicle Inspection

PURPOSE:

To ensure vehicle and equipment are in working order and that the vehicle is safe and ready to respond.

SCOPE:

All personnel.

RESPONSIBILITY/RATIONALE:

It is the primary responsibility of the driver and company officer to conduct a regular vehicle inspection in order to prevent death, injury, and property damage.

- > Develop a vehicle and equipment inspection SOP/SOG.
- > Develop a routine inspection form.
- > Inspect vehicle and equipment after every usage.
- > Develop an SOP for reporting irregularities.
- > Inspect vehicles and equipment daily/weekly following the SOP/SOG.
- > Develop workable "out of service" criteria using NFPA 1911, 1914, and 1915.
- > Follow NFPA 1002 Standard on Fire Apparatus Driver/Operator Professional Qualifications requirements for performing an inspection.
- > Have a knowledge of manufacturer's specifications and inspection recommendations.
- > Document inspections on applicable form, have a routing system, and have a follow-up procedure.

Vehicle Safety Program Management

PURPOSE:

To establish the individual for responsibility, accountability, authority, and to champion for managing a vehicle safety program.

SCOPE:

All officers.

RESPONSIBILITY/RATIONALE:

To define the components of managing a vehicle safety program and how to implement it to prevent death, injury, and property damage.

- > Champion
 - Who?
 - Role/task
 - Limitation
- > Authority
 - Who?
 - Role/task
 - Limitation
- > Responsibility
 - Who?
 - Role/task
 - Limitation
- > Accountability
 - Who?
 - Role/task
 - Limitation
- > Rewards/incentives