

[Type text]

PREPARATION OF FIRE DEPARTMENT

STANDARD OPERATING GUIDELINES (S.O.G.)

COMMITTEE MEMBER HANDOUT

Introduction

All fire departments have a purpose and a statement of organization; some are more formal than others. The statement of organization usually begins with what the organization is dedicated to achieving - a goal!

For example: "The _____ Fire Department will respond and suppress all fires and act to control all community emergencies when summoned by the public". These goals usually require further definition and these definitions get more specific as our operations become more efficient.

Example: "The _____ Fire Department will minimize the life loss potential and reduce undesirable fire ignitions by maintaining a strong public fire safety education program, fire code enforcement program, deploying fire suppression forces in an efficient and safe manner and investigating the cause of each fire".

Well, how do we do all this? We organize, we define our responsibilities, we define our jobs, and we outline our tasks in order to simplify and coordinate our activities with the activities of others on the scene. We standardize those activities so that all personnel conduct themselves in a uniform manner. We write, distribute and use standard operating guidelines.

Definition

A standard operating guideline [SOG] states in general terms what the guideline is expected to accomplish. All major assignments are defined in general terms. The use of words like shall and will leave no room for modification or flexibility. These words must be used carefully. In the following example the Fire Chief is the only person that can conduct the business meeting or act as the incident commander. This may not be the intent of the department.

For example: "the fire chief shall conduct the business of the fire department and act as the incident commander when present during an emergency" or, "the firefighter on active duty shall obey all reasonable orders to complete assigned tasks designed to effect a positive outcome at all emergency fire and medical responses".

The progressive fire department will expand the general statements into a goal and objective arrangement. A goal is defined as an activity to be completed.

For example: "to respond to all wild fires when summoned by general alarm", or, "to perform ventilation guidelines when assigned by the incident commander". Objectives are then required to accomplish the goals. Objectives are tasks or actions.

For example: "when responding to a wildfire, the fire department vehicle will be positioned such that all burnable fuels will be at least 30 feet away from the vehicle and the vehicle will

[Type text]

be able to exit the fire ground without turning around", or, "when performing vertical ventilation guidelines, the fire fighters will work from a roof ladder on the upwind side of the ventilation opening".

Determining the goals and assembling the objectives (tasks) will result in standard operating guidelines.

Format

Standard operating guidelines can assume many different formats. Fire departments may begin the process with a statement of organization and expand it to include all administrative and operational duties, which become goals.

Another format, which may be used to standardize operations, is one, which separates the organizational structure from the administrative and operational duties. In this case a constitution and by-laws, which are designed for clubs and organizations, Policy Manuals are used for public service governmental units. They are formulated to include the definitions of purpose, positions and responsibilities. The Policy Manuals are the guideline to conduct the business of the department, assemble the personnel and develop the rules. The Policy Manuals are approved by the administration and are formally adopted. Changes to the Policy Manuals usually require lengthy adoption guidelines. Standard operating guidelines as a supplement to the Policy Manuals and may be more detailed and less formal. As operations are improved or new technology used, these standard-operating guidelines may require frequent updating. In order to avoid the lengthy process given to Policy Manuals, standard operating guidelines are developed separately and instituted by the governing team in the department.

Structure

The structure used for standard operating guidelines will vary with the size of the department, the type of operations conducted, the qualifications of the personnel, the training conducted by the department and the equipment used during operations. The preferred format to follow is one that is understandable, educational and uniform. Such an example is shown in on page 10.

A small department with limited resources, limited personnel and limited ability will tend to use a page or two of "one liners" to cover their usual operations. For instance a small department with a portable pump mounted on a tanker with limited protective gear will not need a lengthy guideline for interior structure firefighting. In this case a standard operating guideline may take the form of what we can do and what we cannot do. Such an example of hair length is shown in Exhibit 1 on page 9.

As an organization expands in purpose and develops the resources to perform more tasks, the activities get to be more complicated. At this point specific instructions are required to accomplish these complicated activities in a safe, predictable manner. The standard operating guideline will reflect the appropriate amount of detail required to describe the behavior desired to accomplish the goal. For example a guideline for emergency response requires detail going to and returning from an incident and general guidelines for positioning and operating equipment. The guidelines will be similar, yet different, for a supply engine, attack

[Type text]

engine, truck, aerial or tender.

The structure for developing these details has several options. One method is to number the

sequence of events as in Exhibit 2 [Pages 14-17] and Exhibit 3 [Page 19]. Another method is to use a paragraph presentation as in Exhibit 4 [Page 20].

A word of caution is needed concerning the detail included in the SOG. Excessive detail that restricts a judgment call or doesn't allow for flexibility in changing situations must be avoided. For example: "all entry fire line attack nozzle person must operate the nozzle on 30 degree fog for a two second application of water". As we know, a situation may call for a narrow stream application of 30-60 seconds to make entry and we don't want to put the nozzle person in a position to violate guidelines in order to accomplish the task safely.

Therefore the general rule is: Standard operating guidelines must be practical (capable of being used), achievable (simple) effective (to do the job), and based on your experience (not on someone else's).

Purpose and scope

Standard operating guidelines are used for several purposes. The single most important use is as a guideline to keep the fire fighter safe and to protect the people who interact with the fire fighter.

Standard operating guidelines can be developed and used for performance qualifications at various levels.

Standard operating guidelines are adopted and serve as the basic training guide for the fire department. When personnel are knowledgeable in the basic requirements and the sequence of events expected of them in performing their assigned duties, and when these duties are practiced according to the SOG's, personnel will perform in a predictable manner. The fire ground is not the place to begin training for a duty nor is time available to start teaching an expected behavior with all the necessary details. For instance when a fire ground commander gives an order to horizontally ventilate a second story structure, he wants it accomplished knowing the fire fighter will have full protective gear, the proper tools, the proper ladder guideline and do it without injuring himself or others. He also wants it done without spending 15 minutes telling him how or why to do it. In other words everyone uses the same methods because they have been determined to be the safe way to do the job.

Standard operating guidelines are also used to insure that guidelines are being conducted that satisfies the legal requirements for maintaining a safe working environment.

For example: the respiratory protection program should include a statement to the effect that SCBA will be inspected once each month on the designated work meeting or otherwise assigned. "The inspection will include the following items: ---. The inspection will be documented as per the form # 000, attached". In this manner administrative policies and legal requirements for operation can be coordinated with operating guidelines. With a standard operating guideline designed to incorporate inspection, repair and documentation, the requirements of OSHA, NIOSH, NFPA, state regulations and departmental requirements are easily satisfied and on file.



Another legal aspect of a well-developed SOG is that if a fire fighter should become injured or die while performing assigned duties, the standard operating guideline used to perform those duties will be reviewed by the investigating authorities. If the guideline has been developed properly and is current, the guideline should be defensible when reviewed in court.

Preparing Standard Operating Guidelines

Standard operating guidelines should be stated as goals or functions to be accomplished. The basic goal to be achieved might be ventilation, or horizontal ventilation, depending on the detail desired. The goals will be accomplished in the desired manner by using various tasks to complete the assignment.

Some standards when used to satisfy performance qualifications will require statements measurable in time, quality, and quantity. For example the respiratory protection program may include a statement to the effect that fire fighters qualified as interior structure fire fighters will demonstrate twice annually the ability to correctly don and breath the SCBA in 40 seconds or less while wearing full protective clothing.

To begin your standard operating guidelines the decision must be made which format to use, the extension of the organizational statement or the supplement to the statement.

It is suggested that the following separations be made from standard operating guidelines:

Position descriptions; example: "It is the duty of the Chief to ---";

Job descriptions; example: "the pump operator is responsible for ---";

Administrative policies are independent from standard operating guidelines;

example: "fire fighters stationed on duty must wear a white shirt with the department insignia located 1/2 inch down and in the center of the left breast pocket".

It is also suggested when developing standard operating guidelines to consider making a division between administrative and operating guidelines. A pumper operator probably doesn't need to know that form 1039 is to be used when submitting the 1999 annual budget proposal.

Begin the collection of standard operating guidelines by listing the goals desired for the classification of duties being worked on. For instance, a general listing might include alarms, response, rescue, extinguishment, etc. Divide each goal into subdivisions of activities performed by the department. For instance, rescue is divided into interior, high level, below grade, confined space, vehicle extrication, water, ice, etc. If further definition is required, subdivisions can be given more detail; example, high level rescue is divided into 1-3 stories, over 3 stories, roof, elevator, tower, etc.

The guideline is to continue subdividing activities such that when tasks are selected the guideline will be no more than three pages in length, shorter if possible.

To begin the details of a SOG, a job analysis is required. The easiest method is to work a typical

activity through your mind and list all the tasks which are performed in accomplishing the goal. This can also be done by observing the activity being performed by others and listing the steps taken.

The next step in the process is to start at the top of the list and break each statement into the basics of what is required to perform this task. For example, the subdivision of high level rescue might begin with: "proceed to the work station above the victim from which to begin the rescue". However, in order to accomplish this task correctly the following is required: "Don the protective gear consisting of hard hat, long sleeve shirt and full legged pants. Shoes or boots to be worn must have a soft sole typical of appropriate climbing attire and gloves worn will be soft leather or appropriate substitute. The rescue pack will be carried to the work station in such a manner as to allow for free use of both hands in reaching the work station. The rescue pack will consist of the following items: --- "

While reviewing each step in the task, include all components required to perform the task in a safe manner, example: "before proceeding into a burning structure the nozzle must be tested for correct stream pressure and configuration by opening the bail fully and flow for a minimum of 5 seconds". This review may sometimes require that a list of things that could go wrong should be considered in order to assure the complete list of positive actions or remedies is included in the standard operating guideline.

Also to be included in the standard operating guidelines are the activities of the department required to maintain, inspect, repair, replace, or insure the readiness of the equipment for the next operation. Example: "all SCBA used by the____Fire Department will be cleaned and inspected after each use or at a minimum of once each week. All SCBA will be tested annually in accordance with the requirements of NFPA 1981. The inspection guidelines will consist of ---". The inspection will be recorded on form 1091 titled - SCBA Monthly Inspection Report.

The next step in finalizing the standard operating guideline may be the most difficult. Review the list of items, which prepare for, conduct, accomplish, inspect and end the tasks, which complete the desired goal. Revise, incorporate or eliminate the items on the list, which unreasonably restrict action, do not allow for changing conditions, or are unnecessary details.

The standard operating guidelines are then classified and arranged in a presentable format so as to be readily available for reference and used by the personnel for whom they are written. The SOG's should be distributed to those personnel who will use the guidelines and interact with others who need to be familiar with the same guidelines.

Summary

In summary, Standard Operating Guidelines are an important tool. The adaptation and use of a proper set of guidelines will contribute to department motivation, effective performances, organizational growth and the maximum use of your most important resource- emergency response personnel.

Development of a good set of guidelines is a simple job of designing the guideline to the personnel

who will use it. Consider the behavior the person is expected to perform; consider the circumstances, the equipment, where and when the task will be performed and the level of achievement that is required to accomplish the goal.

Ideally, everyone in the department should be involved in some aspect of the standard development. This cooperation will assist in making the transition to operating standards a smoother process rather than a resistance to change.

Suggested Goals For Standard Operating Guidelines

A partial list of general operating and administrative subjects, as well as items to be considered in an organizational statement, are included to get you started on your own list. Be sure to develop your own list and not just copy a neighbor's.



100.000 Organizational Goals

100.1 Statement of organizational purpose

--	--

- 100.2 Membership and loss of Membership
- 100.3 Officers
- 100.4 Elections
- 100.5 Meetings
- 100.6 Rules to conduct business
- 100.7 Methods of financing
- 100.8 Additions/Amendments to Manual
- 100.9 Certification or qualifications
- 100.0010 Promotion
- 100.0011 Discipline
- 100.0012 Medical

200.000 Administrative Guidelines

- 200.1 Departmental policies
- 200.2 General regulations
- 200.3 Position descriptions (top to bottom)
- 200.4 Job descriptions (top to bottom)
- 200.5 Reports and records
- 200.6 Personnel and staffing
- 200.7 Personnel and staffing Scheduling
- 200.8 Personnel Training
- 200.9 Budgeting
- 200.0010 Accounting and finance
- 200.0011 Purchasing
- 200.0012 Payroll
- 200.0013 Uniforms
- 200.0014 Use of apparatus - private and public
- 200.0015 Pre-incident planning
- 200.0016 Code policies
- 200.0017 Inspection
- 200.0018 Public education
- 200.0019 Safety
- 200.0020 Health and accident
- 200.0021 Forms
- 200.0022 Funerals

300.000 Operational Guideline

- 300.1 Alarm
- 300.2 Dispatch
- 300.3 Emergency response
- 300.4 Staging
 - operations medical
 - rehabilitation
- 300.5 Protective clothing
- 300.6 Respiratory protection program
- 300.7 Fire ground safety
- 300.8 Incident command System
- 300.9 Communications/Radio guidelines
- 300.0010 Mutual aid
- 300.0011 Engine/Tanker/Truck operations
- 300.0012 Strategic considerations
 - size up water supply
 - rescue ventilation
 - confine extinguish
 - exposures overhaul salvage

- 300.0013 Tactical Considerations
- 300.0014 Nozzles, hoses, fire streams
- 300.0015 Ventilation
- 300.0016 Ladder operations
- 300.0017 Rescue
- 300.0018 Apparatus placement
- 300.0019 Fire control - interior, exterior
- 300.0020 Small tools

400.000 Incident operations

- 400.1 Residential
- 400.2 Multi-family
- 400.3 High rise
- 400.4 Commercial
- 400.5 Industrial
- 400.6 Vehicle and mobile equipment
- 400.7 Wildfire
- 400.8 Airport

500.000 Hazardous Materials

- 500.1 Response/isolate
- 500.2 Vehicle Flammable /Combustible Liquids Spills
- 500.3 Storage
- 500.4 Highway
- 500.5 Radiation
- 500.6 Evacuation
- 500.7 Incident command
- 500.8 Mutual aid
- 500.9 Special considerations
- 500.10 Carbon Monoxide Response

600.000 Fire Investigations

- 600.1 Cause and origin
- 600.2 Arson
- 600.3 Referral of other crimes

700.000 Medical/Special Rescue Services

- 700.1 Response
- 700.2 Small incident
- 700.3 Mass casualty
- 700.4 Drowning
- 700.5 Infectious dispenser
- 800.1 Inspections
- 800.2 Residential
- 800.3 Commercial
- 800.4 Industrial
- 800.5 Code enforcement

900.000 Training

- 900.1 Recruits
- 900.2 Firefighters
- 900.3 Fire Equipment Operators
- 900.4 Fire Apparatus Operators
- 900.5 Line Officers
- 900.6 Chief Officers
- 900.7 Staff Officers
- 900.8 Administrative Staff
- 900.9 Training Officers/Instructors
- 900.0010 Interior Live Fire Structure
- Training 900.0011 Exterior Live Fire Training
- 900.0012 High Angle Rope Rescue

EXHIBIT 1 City of _____ Fire Department.

TO: All Fire Department Personnel.

Bulletin #: _____ -- _____

Section of the Manual: _____

Replaces Section of the Manual: _____

Prepared By: _____

Date: ____/____/____

Approved By: _____

Date: ____/____/____

Effective Date: ____/____/____

Revision Date: ____/____/____

SUBJECT: S.O.G. for HAIR LENGTH, FACIAL HAIR AND SIDE BURNS

OBJECTIVE: Establish standards for hair length, facial hair and side burns.

All members, hair shall be neat, trimmed, clean and present a groomed appearance. In no case shall the bulk or length of hair interfere with the proper wearing of any authorized fire department apparel. The face shall be normally clean-shaven other than neatly trimmed mustache and side burns. Beards and goatees are prohibited as they interfere with the proper positioning of authorized head gear and self contained breathing apparatus.

Wavers may be granted for medical reasons by the chief of the department, based upon a physician's prescription that a member not shave. In case of a waiver being granted for a beard, the beard shall be trimmed and beard hair shall not extend more than one half inch from the skin surface of the face

RATIONALE:

Fire fighters are most often called upon to function in atmospheres that present numerous hazards of inhalation of toxic fumes and other irritant gases. Considerable scientific data has been accumulated to support the contention that facial hair has a

detrimental effect on the function of self-contained breathing apparatus. Unnecessary risks are not needed in performance of a fire fighter's duties, and those factors that alter risk but are controllable should be controlled.

This rule is promulgated to reduce unnecessary risk and increase the level of safety to the individual member of the department.

Automobile and pickup truck fires are one of the most common emergencies that firefighters face. The safe handling of this type of emergency it=s important to consider a number of historic problems. These vehicles have the ability to carry in concealed compartments any number of potential explosive materials. The vehicles themselves have a number of explosive and highly toxic components, which can be deadly to emergency response personnel.

The techniques of extinguishment for fires in vehicles are similar in many ways to fires in storage facilities. The difficulties posed by the amount of fuel to burn, the possibility of vessel failure, and danger to exposures are similar with both. The major differences include the following:

- Increased life safety risks to firefighters from traffic
- Increased life safety risk to passing motorists
- Reduced water supply
- Difficulty in determining the products involved
- Difficulty in containing spills and runoff
- Tanks and piping weakened or damaged by the force of collisions
- Instability of vehicles
- The surroundings of the incident may pose additional concerns
(residential neighborhood, schools, etc.)

While a serious accident may bring traffic to a halt, many incidents will be handled with traffic passing the scene at near-normal speeds. A lane of traffic in addition to the incident lane should be closed during initial emergency operations. The use of open flame flares should be avoided due to the possibility of their igniting leaking fuels. Fire apparatus should be positioned to take advantage of topography and weather conditions (uphill and upwind) and to protect firefighters from traffic. Firefighters should exit the apparatus and work as much as possible from the curb side away from traffic. In addition, firefighters should avoid working where the apparatus could be pushed into them if it were struck by another vehicle. Where traffic is passing closely, firefighters should be careful not to allow tool handles to extend into the traffic lane where they may be struck. When law enforcement personnel are unavailable, firefighters should be assigned the role of traffic control officers.

The techniques of approaching and controlling leaks or fires involving vehicles are the same as for storage vessels. Additionally, firefighters should be aware of the failure of vehicle tires that

may cause the flammable load to shift suddenly. Crews will need to know the status of there water supply so as not to exceed the limitations of that supply. It may also be necessary to protect trapped victims with hoselines until they can be rescued.

Firefighters must determine, as soon as possible, the exact nature of the content, placards, or the driver of the vehicle. Unfortunately, cases will exist where these items cannot be found, placards can be obscured. In these instances, pre-incident plans for emergencies should be followed to reduce life loss, property damage, and environmental pollution.

All _____ Fire Department Standard Operating Guides, unless superseded by a specific part of this plan, shall remain in effect for Automobile and pickup truck incidents.

Effective Date: _09_/_01_/_1990_ Revision Date: _09_/_01_/_1992_ Page 2 of 10

This guide is specifically applicable to Automobile and pickup truck fires. It does not however, reduce the need for appropriate safety precautions at every incident. The use of proper turnout gear and SCBA is considered standard procedure.

This guide has been prepared based on nationally accepted practices established by court cases and requirements from state and federal laws and regulations.

The purpose of the guide is to increase the firefighter's ability to work safely as a member of a team.

The objective of this document is to guide and to assure the company's ability to safely and successfully handle a automobile or pickup truck type fires and emergencies.

Firefighters who participate in this evolution will meet the requirements set forth in Objective 3 -14.1 (c) of NFPA 1001, *Standard for Fire Fighter Professional Qualifications (1992)*.

(NOTE: Probationary firefighters will not be allowed to participate at this type of emergency. Firefighters shall be proficient in the necessary skills as required by Mn-OSHA 182.653 Subd. 2, *before you assign an employee to perform a task, the employee must have been trained to do the task*.)

STRATEGY SECTION

FIRST ARRIVING UNITS SIZE UP

At the time of the alarm, 1st responding Fire Department Officer must examine wind direction, wind speed, topography for appropriate response.

The first Fire unit arriving at the scene of an incident will:

1. Establish Command and safety, then continue the size up. The first unit must avoid committing itself to a dangerous situation. When approaching, slow down or stop to assess any visible and potential explosive activity taking place.
2. Take immediate steps to identify the nature of the incident and report the following to Dispatch.
 - a. Exact location.
 - b. Type and amount of vehicles involved.
 - c. Extent of personnel injury and damage.
 - d. Estimated need for ambulance or other transportation conveyances.
 - e. Need for additional traffic control assistance.
 - f. Wind direction and wind speed.

- g. If hazardous materials/motor fuels are leaking call dispatch for 544 to take care of the Haz Mat response.

- h. Have Dispatch notify Pollution Control if necessary.
- 3. Apply appropriate emergency techniques if accident has resulted in a fire.
- 4. Request assistance from any other resources deemed necessary through Dispatch.

ACTION PLAN

Based on the initial size up and any additional information, Command will have to formulate an action plan to stabilize the situation.

The specific action plan must identify the method of control and identify the resources available and/or required to accomplish this goal. It may be necessary to select one method over another due to lack of a particular resource or to adopt a holding action to await needed resources.

This plan must provide for:

1. Safety of firefighters and emergency response personnel.
2. Safety of citizens.
3. Evacuation of endangered area, if deemed necessary.
4. Control of situation.
5. Extinguishment of any fires.
6. Stabilization of any hazardous materials spills.

In all cases, the responsibility for the safety of all personnel involved in any incident rests with Command and the Safety Officer.

GENERAL FACTORS TO CONSIDER

These considerations do not attempt to provide specific guidelines on individual situations and are not listed in any order of utilization.

The following items may be significant to consider at any vehicle accident or fire because of the potential for combustible or flammable liquid spill: (Not all will be significant at any particular incident.)

1. Attack Apparatus Placement - First Engine In (547 or 548)
 - a. Do not leave station until the apparatus is equip. with a minimum of four (4) and preferably a full crew.
 - b. Park apparatus a minimum of 100 feet uphill and upwind from fire area.
 - c. Establish Command in a safe location away from fire area.
 - d. Establish a two attack lines (minimum) to extinguish fire.
 1. Pre-connected 150 foot 1.5" 100 g.p.m. fog nozzle.
 2. Pre-connected 150 foot 1.5" piercing nozzle
2. Back-up Apparatus Placement - Second In Unit/Tender (546)

- a. Do not leave station until the apparatus is equipped with a full crew of three (3).
- b. Park apparatus a minimum of 100 feet uphill and upwind from fire area.
- c. Establish a backup line to protect attack crew.
- d. Establish a backup water supply line for Attack Engine.
- e. Advise all other responding units to stage until instructed to take specific action. Staging must be in a safe location, taking into account wind, spill flow, explosion potential, and similar factors.

3. Attack engine crew place two appropriate hose lines into operation

- a. Minimum line to be used on vehicle fires is to be a 150 foot 1.5" inch hose line.
 - 1. Pre-connected 150 foot 1.5" 100 g.p.m. fog nozzle.
 - 2. Pre-connected 150 foot 1.5" piercing nozzle
 - b. Cool any immediate exposures and extinguish fires.
 - c. Cover any spill with AFFF.
- 3. Protect uninvolved material
 - a. Protect undamaged containers, move away from area if possible.
 - b. Cool containers and compartments if involved in fire
- 4. Stop the leak
 - a. Place plug into opening to stop flow. Use protective hose stream(s) to accomplish plugging, if necessary.
 - b. Tanks leaking flammable liquids, with specific gravity of less than 1.0 can be filled with water to a point above the level of the leak, thus allowing only water to escape.
- 5. Exclude air and halt fuel vaporization
 - a. Use AFFF which possesses low viscosity, has fast spreading and leveling characteristics, and acts as a surface barrier to exclude air and halt fuel vaporization. AFFF also develops a continuous aqueous layer of solution under the foam which maintains a floating film on hydrocarbon fuel surfaces to help suppress combustible vapors and cool the fuel.
 - b. Cover the fuel surface entirely with AFFF to insure fire extinction.
 - c. Request additional supply of AFFF if needed.
- 6. If flowing fuels - Dike Spill (Engine 544 crew)
 - a. Divert spill from storm drain and environment.
 - b. If liquid is gasoline the best course of action is to use foam and dike the spill. If some liquid has entered the drainage system, it may be necessary to deluge the system with water and/or AFFF to control the vapors. Post firefighters to guard against the ignition of vapors. Dispatch must notify Fire Chief or County Pollution Control

immediately so proper

precautions can be taken.

7. Absorb, construct dams, dikes or channels

- a. Where the spill is not very large, it may be possible to absorb liquid or dam it up with dirt or sand. Request Alarm to contact Public Works for needed resources if not available on the scene.
- b. Where spill is large or where washing the substance away is not feasible or advisable, it may be possible to impound spill with dirt or sand brought in by the Public Works Department.
- c. Channel spill to safe location area if possible.

8. Remove ignition source

Areas penetrated by flammable vapors should be checked with explosive meters and steps taken to prevent ignition. Protect exposures and evacuate if it is deemed necessary.

9. Diesel fuel spills

- a. Be very cautious about applying water on diesel fuel where no fire exists. Most of the time, water will only make the spill larger and create a greater traffic hazard by spreading the oil slick.
- b. Request sand from the Public Works Department or Co. Highway Dept. to absorb the spill.
- c. As soon as the fire hazard is abated and the only hazard remaining is that of an oil slick on the roadway, leave the situation in the care of Law Enforcement and Public Works Departments.

10. Law Enforcement Assistance

- a. Utilize Law Enforcement in keeping back spectators, directing traffic and blocking off the access roads to the area.
- b. Be cautious to prevent ignition by prohibiting the use of flares in vapor path.

TACTICAL SECTION

THE TACTICS FOR RESPONSE AND FIRE

The following guide should be used.

Step 1: Respond to the station in a safe manner.

Step 2: Change into your personal protective equipment.

Effective Date: _09_/_01_/_1990_ Revision Date: _09_/_01_/_1992_

Page 7 of 10

- Step 3: Take your assigned position (officer/driver/firefighter) on the designated alert company engine (547 or 548) and or Tender 546.
- Step 4: Officer assures that all crew members are seated and belted on the apparatus and wearing full personal protective clothing.
- Step 5: Officer notifies dispatch by radio that the unit (547/548/546) is 10-8 in route.
- Step 6: Officer verifies with dispatch by radio the address, wind direction and if any information is available from law enforcement officers on the scene.
- Step 7: At approximately three minutes from the scene, the Officer issues orders that all crew members suit up mask up and are wearing full personal protective clothing ready for fire attack.
- Step 8: Upon arrival the Officer instructs driver to slow prior to entering the scene to determine apparatus placement. The apparatus should be parked at least 100 feet (30 m) upwind, uphill from the vehicle fire.
- Step 9: On the scene, the company officer shall notify dispatch that you are 10-6 and give a size-up report to the dispatcher.
- Exact location.
 - Type and amount of vehicles involved.
 - Extent of personnel injury and damage.
 - Estimated need for ambulance or other transportation conveyances.
 - Need for additional traffic control assistance.
 - Wind direction and wind speed.
 - If hazardous materials/motor fuels are leaking call dispatch for 544 to take care of the Haz Mat response.
 - Have Dispatch notify Fire Chief or County Pollution Control if necessary.
- Step 10: Prior to anyone leaving the apparatus, the Officer instructs the driver and the crew of the tactical plan that will be used for this incident and reminds everyone to think safety.
- Step 11: The driver/operator positions the apparatus uphill and upwind of the fire. The apparatus is parked, the wheels are chocked, and the fire pump is engaged and prepares to charge both attack lines when ordered.
- Step 12: The driver and firefighters from water tender 546 wearing full turnout gear and SCBA stretch and charge the pre-connected 150 foot (minimum) 2" 100 g.p.m. fog nozzle real line, for backup.

Step 13: The officer and firefighters from the attack engine (547/548), wearing full turnout gear and SCBA stretch two lines;

1. Pre-connected 150 foot (minimum) 1.5" 100 g.p.m. fog nozzle.

2. Pre-connected 150 foot 1.5" piercing nozzle.

NOTE: If heavy fire is located in the passenger compartment the piercing nozzle shall be applied into the trunk compartment, turned on and left un-attended. This will cool any explosive containers and the gas tank while the attack crew uses the fog nozzle line to extinguish the fire. The piercing nozzle can also be applied into the engine compartment when the hood release is unattainable.

Step 14: The driver/operators of both units charges all hose lines when ordered.

Step 15: The company officer observes the progress and observes the area for potential arson evidence and witnesses.

Step 16: The firefighters cool explosive hazards and extinguish the fire by; approaching the vehicle from a 45 degree angle (never directly the front or rear) applying water in the form of a straight stream, from a distance of forty five (45) feet bounce the water under the car from the front to back, cooling the front bumper shocks, the drive shafts, tires, gas tanks, rear bumper shocks, rear tires and any ground fire.

Step 17: After stabilizing the exterior hazards, the firefighters determine if the piercing nozzle is needed for the trunk area or the engine compartment area and if so, position and apply the nozzle. Then extinguish the interior fires by gaining entrance to the compartment, with the largest amount of fire showing, by the quickest method possible.

NOTE: firefighters must be aware of potential rescue of victims and the possibility of a deceased victim in side the vehicle. Treat fires of this type as crime scenes until told otherwise.

Step 18: When no more flame is visible, the company officer notifies dispatch that the fire is under control.

Step 19: When no more flame is visible, the firefighters mop up the fire with evidence preservation in mind.

Step 20: Officer determines when it's safe to drain and pick-up lines. All equipment should be placed back on the apparatus and in service.

Step 21: All apparatus should be placed back in service.

Step 22: The fire officer turns the scene over to the law enforcement or fire investigators.

Step 23: The officer orders all personnel to their apparatus and to return to quarters. The officer notifies dispatch that all units are 10-8 and returning to quarters.

Step 24: At quarters all equipment is check and placed back in service.

Step 25: At quarters the officer determines if a debriefing is necessary, completes all fire reports, takes roll call and secures the personnel.

NOTE: Each evolution should be evaluated by the department training division or senior officer. A critique should be held for each response.

KEY INDICATORS

THE COMPANY OFFICER

All appropriate safety conditions and actions taken and conveyed.

All appropriate conditions and actions to be taken are conveyed in the size-up report.

If officer is not wearing SCBA, he or she shall remain out of the vehicle and smoke.

No flames are visible when the "under control report" is given to dispatch.

THE DRIVER/OPERATOR

The apparatus is positioned uphill, upwind, and a safe distance from the scene.

The wheels are chocked and the parking brake is set.

The pump is engaged swiftly.

The hose line(s) charged to the proper pressure when the firefighters are ready for water.

THE FIREFIGHTERS

All personal protective clothing and SCBA are worn correctly.

The attack lines are stretched using the proper techniques for the given situation.

All personnel approach the vehicle at the safe angle.

The ground/exterior fire is attacked at a safe distance first and then the interior fire.

CRITIQUE DISCUSSION QUESTIONS

1. How can we improve our procedure for responding to and attacking vehicle fires?

SUPPORTING TRAINING AUDIOVISUALS

The following video is available from IFSTA/Fire Protection Publications to support this guide:
Fire Control 2 (Action Training Systems)

REFERENCE MATERIALS

The following material is available from IFSTA/Fire Protection Publications to support this guide: IFSTA Essentials of Fire Fighting (3rd Edition)Chapter 12, Fire Control

WEBSTER=S DEFINITIONS

PROCEDURE; \pro-se-jar\ n

1: a particular way of doing something

2: a series of steps followed in a regular order (surgical)

GUIDELINE; \=gid-lin\ n

an indication or outline of policy or conduct

I. PURPOSE

II. GENERAL

III. PROCEDURES