

### 3.1.2.9 Operating on Roadways



YOUR ORGANIZATION  
STANDARD OPERATING PROCEDURES/GUIDELINES

**TITLE:** Operating on Roadways

**SECTION/TOPIC:**

**NUMBER:** 3.1.2.9

**ISSUE DATE:**

**REVISED DATE:**

**PREPARED BY:**

**APPROVED BY:**

X

Preparer

X

Approver

These SOPs/SOGs are based on FEMA guidelines FA-197

#### 1.0 POLICY REFERENCE

CFR

NFPA

NIMS

#### 2.0 PURPOSE

This standard operating procedure/guideline addresses operations near moving traffic, traffic control, use of warning devices, vehicle/ scene stabilization, coordination with law enforcement personnel, standard procedures and precautions, special situations (e.g., downed power lines).

#### 3.0 SCOPE

This SOP/SOG pertains to all personnel in this organization.

#### 4.0 DEFINITIONS

These definitions are pertinent to this SOP/SOG.

#### 5.0 PROCEDURES/GUIDELINES & INFORMATION

##### 5.1 Operations near Moving Traffic:

Fire Department vehicles are authorized to exceed posted speed limits only when responding Code 3 under favorable conditions. This applies only with light traffic, good roads, good visibility and dry pavement. Under these conditions a maximum of 10 mph over the posted speed limit is authorized.

Under less than favorable conditions, the posted speed limit is the absolute maximum permissible.

When emergency vehicles must travel in center or oncoming traffic lanes, the maximum permissible speed shall be 20 mph.

Intersections present the greatest potential danger to emergency vehicles. When approaching and crossing an intersection with the right-of-way, drivers shall not exceed the posted speed limit.

When emergency vehicles must use center or oncoming traffic lanes to approach controlled intersections, (traffic light or stop sign) they must come to a complete stop before proceeding through the intersection, including occasions when the emergency vehicle has green traffic lights.

When approaching a negative right-of-way intersection (red light, stop sign) the vehicle shall come to a complete stop and may proceed only when the driver can account for all oncoming traffic in all lanes yielding the right-of-way.

Code 3 response is authorized only in conjunction with emergency incidents. Unnecessary emergency response shall be avoided. In order to avoid any unnecessary emergency response, the following rules shall apply.

- When the first unit reports on the scene with "nothing showing" or an equivalent report, any additional units shall continue Code 3, but shall not exceed the posted speed limit.
- The first arriving unit will advise additional units to respond Code 2 whenever appropriate.

## **5.2 Traffic Control:**

## **5.3 Use of Warning Devices:**

The use of sirens and warning lights does not automatically give the right-of-way to the emergency vehicle. These devices simply request the right-of-way from other drivers, based on their awareness of the emergency vehicle presence.

Emergency vehicle drivers must make every possible effort to make their presence and intended actions known to other drivers, and must drive defensively to be prepared for the unexpected inappropriate actions of others.

## **5.4 Vehicle/Scene Stabilization:**

## **5.5 Coordination with Law Enforcement Personnel:**

## **5.6 Standard Procedures and Precautions:**

It is the responsibility of the driver of each Fire Department vehicle to drive safely and prudently at all times. Vehicles shall be operated in compliance with the State Motor Vehicle Code. This code provides specific legal exceptions to regular traffic regulations, which apply to Fire Department vehicles only when responding to an emergency incident or when transporting a patient to a medical facility. Emergency response (Code 3) does not absolve the driver of any responsibility to drive with due caution. The driver of the emergency vehicle is responsible for its safe operation at all times.

### **Code 3 Driver and Co-Driver**

Engine, ladder, ladder tenders, and rescues should have 2 PFD members in the front seats of the apparatus whenever possible while responding Code 3. The driver is responsible for operating the vehicle safely. The Co-driver is responsible for being a second set of eyes and ears anytime a unit is responding Code 3. Driver and Co-drivers must be focused on intersection management any time a PFD vehicle enters into an intersection Code 3.

Intersection management requires the Drivers and Co-drivers undivided attention. The Co-driver in addition to the Driver should be accounting for clearance in all traffic lanes, accounting for all pedestrian traffic and announce if it is clear or not clear to proceed.

### **Mobile Computer Terminal Enhancements**

Accurate response codes will be displayed on the MCT, if no response code is designated, the response will be Code 2 unless directed by a company officer. Officers and rescue attendants must press the correlating response code button on the MCT.

### **BLS Medical Incidents**

Response codes for all engines, ladders, ladder tenders and rescues will be determined by the company officer based on information received from alarm, time of day, traffic conditions, weather conditions and other factors. Rescue units will respond Code 2; **they do not have the authority to upgrade their response to Code 3 unless directed by the responding or on scene company officer.** When a rescue is the “first due” unit on a BLS incident they will respond Code 2 unless directed to upgrade to Code 3 by the responding company officer. Rescue crews should keep the responding company officer apprised (by radio) of excessive time delays or other conditions that may warrant an upgrade to Code 3.

## **ALS and BLS Medical Incident Transport**

Response codes for rescue units during patient transport will be established by the on-scene company officer prior to the rescue unit leaving the scene. If the on-scene officer determines that a Code 3 transport is required, the officer should make every reasonable effort to have a crewmember in the codriver position. The MCT Code LV3 should be entered.

In the event a rescue must change the response status from Code 2 to Code 3 while enroute to a medical facility, the senior member should make every effort to reassign available personnel to the codriver position and rapid notification should be made to the Alarm Room.

When responding Code 3, warning lights must be on and sirens must be sounded to warn drivers of other vehicles, as required by the State Motor Vehicle Code.

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Drivers shall avoid backing whenever possible: Where backing is unavoidable, spotters shall be used. If no spotter is available, the driver shall dismount and walk completely around apparatus to determine if obstructions are present before backing.

All City employees are required to use seat belts at all times when operating a City vehicle equipped with seat belts. Anyone riding as a passenger/attendant in a City vehicle is also required to use seat belts; i.e., rescue, engine, ladder, utility, service van, staff vehicle, etc. The Company Officer/driver of the vehicle will confirm that all personnel and riders are on-board, properly attired, with seat belts on, before the vehicle is permitted to move.

All personnel shall ride only in regular seats provided with seat belts. Riding on tailboards or other exposed positions is not permitted on any vehicle at any time.

During an emergency response, fire vehicles should avoid passing other emergency vehicles. If passing is necessary, permission must be obtained through radio communications, using the communications order model.

The unique hazards of driving on or adjacent to the fire ground requires the driver to use extreme caution and to be alert and prepared to react to the unexpected.

Drivers must consider the dangers their moving vehicle poses to fire ground personnel and spectators who may be preoccupied with the emergency, and may inadvertently step in front of or behind a moving vehicle.

When stopped at the scene of an incident, vehicles should be placed to protect personnel who may be working in the street and warning lights shall be used to make approaching traffic aware of the incident. At night, vehicle mounted floodlights and any other lighting available shall be used to illuminate the scene. All personnel working in or near traffic lanes shall wear high visibility vests.

If it is not necessary to park vehicles in or near traffic lanes, the vehicle should be pulled off the road to parking lots, curbs, etc., whenever possible.

The officer in charge or driver of the vehicle is responsible for the safety of all vehicle operations and managing compliance of this procedure.

## **Emergency Response Policy**

City Fire Department vehicles shall be operated in a manner that provides for the safety of all persons and property. Safe arrival shall always have priority over unnecessary speed and reckless driving enroute to an emergency incident.

**Prompt, Safe Response Shall be Attained by:**

1. Leaving the station in a standard manner:
  - quickly mounting apparatus
  - all personnel on board, seated and belts on
  - station doors fully open
2. Driving defensively and professionally at reasonable speeds.
3. Knowing where we are going.
4. Using warning devices to move around traffic and to request the right-of-way in a safe and predictable manner.

**Fast Response Shall Not Be Attained By:**

1. Leaving quarters before crew has mounted safely and before apparatus doors are fully open.
2. Driving too fast for conditions.
3. Driving recklessly or without regard for safety.
4. Taking unnecessary chances with negative right-of-way intersections.
5. Intimidating or scaring other drivers.

**Emergency Response Criteria**

1. Maximum 10 mph over posted speed limit.
2. Traveling in center or oncoming traffic lanes, 20 mph maximum.
3. Traveling in center or oncoming traffic, complete stop at all traffic lights/stop signs.
4. Posted speed limit when entering intersections with green light.
5. Complete stop at all red lights, stop signs.

**5.7 Special Situations: (e.g. downed power lines)**

It is our policy to respond to reports of power lines down and other hazards involving energized electrical equipment (transformers, substations, electric vaults) for fire control and public safety. It is

the responsibility of the company officer to maintain that level of safety until relieved by another fire company, police agency or utility company.

### **PURPOSE**

This procedure will establish a standard approach and response to the report of power lines down and other responses to energized electrical equipment. Power lines can come in contact with the ground as a result of storm related activity, fire, or vehicles striking power poles. In all cases, the potential for electrical shock/electrocution and secondary fire must be considered.

### **ELECTRIC SAFETY AWARENESS**

Electricity will travel any conductive path it can as it seeks a ground. A direct path to ground can occur when contact is made between something energized and a portion of your body such as your hand, arm, head, or other body part. An indirect path to ground occurs when you are holding something or touching an object that is in contact with something energized. This could include tools or other equipment you may be holding or when touching a fence, vehicle, or other object that may be in contact with something energized.

#### ***Gradient Voltage (Step and Touch Potential)***

When power lines are down, they will energize the ground around them. For Example: point of ground contact could be 7160 volts. This voltage will lessen as it radiates out from this point; for example, 6000 volts. If your feet are in areas where there is a voltage difference, you could complete the circuit and be the source to ground. This is called “step potential.” This danger could be indicated by a tingling sensation in the feet and serve as a warning to back away from the area. Step potential is more severe when the ground is wet.

### **Key Points**

- Downed lines must always be considered energized with potentially lethal current.
- Lines can reset and become “hot” or “energized” again by manual operation of a switch, by automatic re-closing methods (either method from short or long distances away), by induction where a de-energized line can become hot if it’s near an energized line, or through back feed conditions.
- Power line tends to have “Reel Memory” and may curl back or roll on itself when down.
- Use caution when spraying water on or around energized electrical equipment. Hose streams conduct current! Never spray directly into the power lines. Use a fog spray at the base of the pole. Your primary responsibility is to protect the surrounding area. Short bursts of water are preferred methods to avoid being grounded. Never spray water onto electrical equipment until a utility rep has confirmed that the equipment is de-energized or “dead.”
- Electrical equipment is classified as:
  - Energized
  - De-energized (cannot be 100% guaranteed)

- Dead (confirmed by utility representatives after grounding the lines(s)).
- PCB hazards: Smoke potentially fatal; avoid and contain pools of oil around transformers.
- Poor soil resistance in the desert southwest may not provide enough of a ground to trip a circuit even when a conductor is laying on it.
- You cannot tell the voltage of a power line by the size of the conductor. Most overhead conductors are not insulated.
- Voltage can travel through both dry and especially wet ground for considerable distances.
- Pad-mounted and overhead transformers can explode.
- Until grounded, equipment can contain electric potential, which can cause severe injury or death.
- Electricity can flow through the ground or other conductive objects, (fences) to point far from the scene.

#### **RESPONSE TO POWER LINES DOWN**

- Request utility company to respond.
- Consider all down wires as “energized.”
- Place apparatus away from “down lines and power poles” and out from under involved overhead lines that could fail and fall onto equipment or personnel.
- Secure the area/deny entry.
- Periods of high activity; company officer may choose to leave one (1) crewmember on-scene with a radio to wait for utility company.
- In the event of multiple lines/poles down over a large area, call additional resources.

#### **Down Power Lines and Vehicles**

- Request utility company to respond.
- Do not touch vehicle
- Have occupants remain inside the vehicle
- Place apparatus a safe distance away from down lines.



- If occupants must leave the vehicle (fire or other threat to life) instruct them to open the door, not step-out! They should jump free of the vehicle without touching vehicle and ground at the same time; they should walk away from the vehicle with very small steps.

#### **SUB-STATION, TRANSFORMER, ELECTRICAL VAULT AND MANHOLE FIRE**

- Request utility company to respond.
- Clear the area.
- Be aware of explosion potential.
- Place apparatus in a safe location away from overhead power lines.
- Protect exposures.
- Do not make entry until the utility representative has verified that the above electrical equipment has been de-energized. The utility representative may have to make entry to uninvolved sections to safely de-energize the equipment.

#### **RESPONSE TO POWER POLE FIRES**

- Request utility company to respond.
- Consider all wires and poles as “energized.”
- Place apparatus away from “down lines and power poles” and out from under involved overhead lines that could fail and fall onto equipment or personnel.
- Secure the area/deny entry.
- Do not make any fire attack until the utility representative has verified that the electrical equipment has been de-energized.