

# SCOTTS VALLEY FIRE PROTECTION DISTRICT




<b>STANDARD OPERATING PROCEDURES</b>	<b>ARTICLE: II</b>	<b>SOP: 2119</b>
	<b>SECTION: 2100 SAFETY</b>	
	<b>SUBJECT: INCIDENTS ON ROADWAYS- FREEWAYS</b>	
<b>DATE APPROVED:</b>	<b>10/24/2007</b>	
<b>APPROVED:</b>	<i>Michael P. Murray</i>	

**Purpose:** To establish response and operational guidelines for emergency incidents on roadways and freeways for all Scotts Valley Fire Protection District.

**Scope:** This procedure is to be followed by all employees of the Scotts Valley Fire Protection District for incidents on Roadways/Freeways.

**Procedure:**

- A. Scotts Valley Fire Protection District has adopted these guidelines for the response criteria for incidents on roadways and freeways.
- B. Scotts Valley Fire Protection District agrees to follow these operational guidelines for emergency incidents on roadways and freeways to insure the proper handling of the incident and safety of the personnel. It is understood that the California Highway Patrol (CHP) or local law enforcement agency has the primary responsibility for traffic control. Fire personnel may direct traffic for safety purposes.
- C. It is the policy of the Scotts Valley Fire Protection District to position apparatus and other emergency vehicles at incidents on the freeway, or other locations where traffic can cause safety concerns, in a manner that best protects the incident scene and the work area.
- D. Such positioning is intended to afford protection to fire personnel, law enforcement, medical workers, tow operators and the public from the hazards of working in or near moving traffic.
- E. Fire Agency Incident Commanders are to implement this policy to every extent practically possible at any incident on or near public roadways, highways, and freeways which will include the mandated use of ANSI class II retro-reflective vests to enhance visibility of personnel engaged in mitigating the emergency incident
- F. To increase the level of visibility of the emergency response personnel at the scene of a traffic-related incident on, or near roadways and freeways with motor vehicle traffic, all personnel shall wear a highly visible and reflective ANSI rated vests over turnout coats.

<b>SCOTTS VALLEY FIRE PROTECTION DISTRICT</b>			
<b>STANDARD OPERATING PROCEDURES</b>	<b>ARTICLE: II</b>	<b>SOP: 2119</b>	
	<b>SECTION: 2100</b>	<b>SAFETY</b>	
	<b>SUBJECT: INCIDENTS ON ROADWAYS/FREEWAYS</b>		

Exceptions:

1. The supplemental retro-reflective vest is NOT designed or approved for use as fire resistant PPE, and shall not be worn by any employee engaged in fire suppression.
  2. Crews working with extrication tools MAY choose not to wear the vests if they are seen to cause entanglement issues for extrication crews.
- G. Dispatch for any incident on the freeway will include a minimum of 2 engines.

## I. TERMINOLOGY

- Block:** Positioning a fire apparatus on an angle to the lanes of traffic creating a physical barrier between upstream traffic and the work area.
- Buffer zone:** The distance or space between personnel and vehicles in the protected work zone and nearby moving traffic.
- Downstream:** The direction that traffic is moving as it travels away from the incident scene.
- Upstream:** The direction that traffic is traveling from as the vehicles approach the incident scene. (Think of the traffic flow as water in a river).
- Shadow:** The protected work area at an incident that is shielded by the blocking apparatus.
- Taper:** The action of merging several lanes of traffic into fewer lanes.

## II. SAFETY

- A. Personnel should never trust approaching traffic.
- B. Personnel should avoid turning their backs to approaching traffic.
- C. Personnel shall refer to SOP 2104 Protective Clothing Requirements for proper PPE use.
- D. When walking around rigs, stop at the corner, check for traffic and proceed remaining as close to the apparatus as possible.

**SCOTTS VALLEY FIRE  
PROTECTION DISTRICT**



<b>STANDARD OPERATING PROCEDURES</b>	<b>ARTICLE: II</b>	<b>SOP: 2119</b>
	<b>SECTION: 2100 SAFETY</b>	
	<b>SUBJECT: INCIDENTS ON ROADWAYS/FREEWAYS</b>	

- E. Personnel should constantly remain cognizant of traffic and shall exercise caution when operating at the scene.
- F. To avoid exiting the vehicle on the traffic side, firefighters and crew cabs should move across the cab to exit on the "shadow" side of the apparatus.
- G. As a safety precaution, personnel should look before opening doors and stepping out of apparatus into any moving traffic areas.
- H. Extreme caution should be used when retrieving equipment from upstream side of apparatus, post lookouts if necessary.
- I. Whenever possible, work from the shoulder side of the incident and use the shoulder for staging and hose deployment if possible.

**III. RESPONSE PROCEDURES**

- A. With a 2-engine response, efforts should be made to approach the reported scene from opposing directions. This provides adequate coverage of the reported area.
- B. Flashing red lights and sirens generally should not be used when responding on a freeway.
- C. During periods of extreme congestion, when traveling against traffic flow or on shoulders, a code 3 response may be utilized.

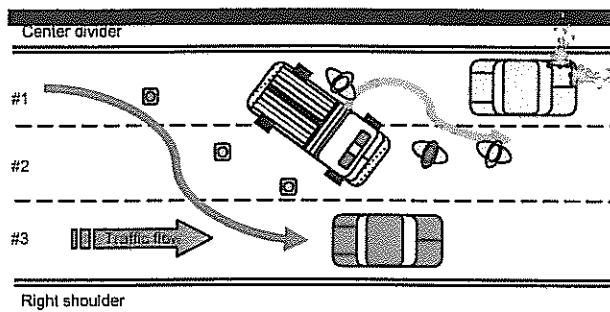
# SCOTTS VALLEY FIRE PROTECTION DISTRICT



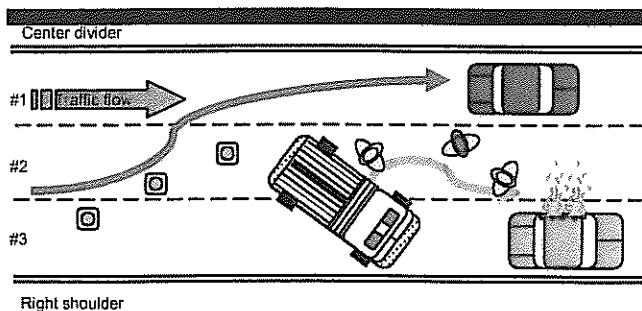
<b>STANDARD OPERATING PROCEDURES</b>	ARTICLE: II	SOP: 2119
	SECTION: 2100 SAFETY	
	SUBJECT: INCIDENTS ON ROADWAYS/FREEWAYS	

## IV. PARKING PROCEDURES

- A. Apparatus approaching a scene should determine the size of the work zone based on number and location of vehicles, debris field, patient triage and treatment area, extrication area and personnel and tool staging area.
- B. Whenever possible, the first arriving engines should position apparatus to protect the scene.
- C. Initial apparatus placement should provide a work area protected from traffic approaching in at least one direction.
- D. Angle apparatus on the freeway with a "block to the right" to create a physical barrier between the crash scene and approaching traffic. The "block to the right" should be used whenever possible as it protects the pump panel and the engineer.




**Fig. 1 – Eng. has “blocked right” and taken one additional lane. Engineer and pump panel are on the “downstream” side of the incident.**



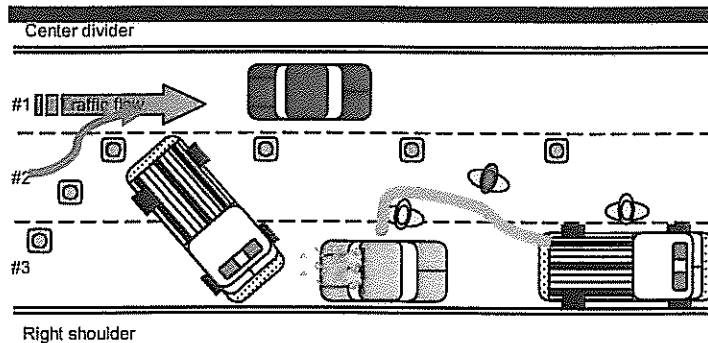
**Fig. 2 – Eng. has “blocked right”. Note the “shadow” where crews can safely operate and deploy hose lines.**

- E. Use fire apparatus to block at least the lane already obstructed by the crashed or involved vehicle. In freeway zones that have more than 2 lanes in each direction, fire apparatus should block an additional lane of traffic. If the shoulder is available,

<b>SCOTTS VALLEY FIRE PROTECTION DISTRICT</b>		
<b>STANDARD OPERATING PROCEDURES</b>	<b>ARTICLE: II</b>	<b>SOP: 2119</b>
	<b>SECTION: 2100 SAFETY</b>	
	<b>SUBJECT: INCIDENTS ON ROADWAYS/FREEWAYS</b>	

block right and use the shoulder as the additional lane and approach from the shoulder side of the incident. (See fig. 1 and 2)

- F. The position of blocking apparatus shall take into consideration all factors that limit sight distance of the approaching traffic including lighting conditions, road conditions, curves, bridges and over and under passes.
- G. It will be up to the company officer to decide if blocking the scene with the apparatus or parking "Up hill, up wind" will provide the most safety for the crew. If "Up hill, up wind" takes the engine "downstream" from the scene, have the next in engine block the scene from a safer distance. (See fig. 3) Keep in mind, until the next engine blocks; your crew has no barrier protecting them from oncoming traffic. **USE EXTREME CAUTION!**



**Fig. 3 – 1<sup>st</sup> in Eng. has parked downstream from incident. Next in engine blocks. (diagram not to scale)**

- H. Blocking apparatus will keep all emergency warning lights on during the incident. This provides a visible warning to the physical barrier that the apparatus presents.
- I. All other apparatus will park downstream from blocking apparatus in the shadow and turn off all emergency lighting except 4-ways.
- J. In the event that the incident is on a 2-lane portion of the freeway, the practice of taking one additional lane will be modified. Blocking apparatus will take the incident lane and a portion of the adjacent lane. (See fig. 4) This procedure will allow traffic to use the remaining part of the lane and the shoulder to pass the incident.

# SCOTTS VALLEY FIRE PROTECTION DISTRICT



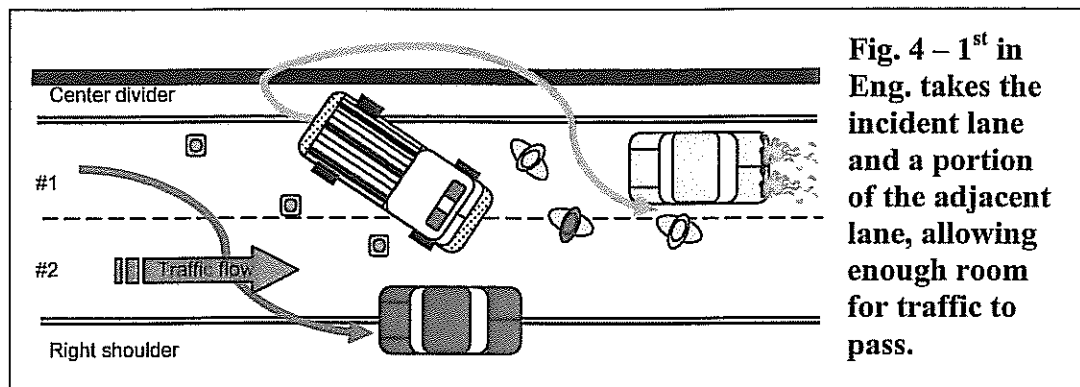
**STANDARD  
OPERATING  
PROCEDURES**

**ARTICLE: II**

**SOP: 2119**

**SECTION: 2100 SAFETY**


**SUBJECT: INCIDENTS ON ROADWAYS/FREEWAYS**



- K. The space immediately beyond the accident scene is reserved for the ambulance and fire/rescue vehicles.
- L. Consider the use of Chief or staff vehicles for additional warning devices. Staff vehicles equipped with directional lighting on the light bars that can aid in tapering.
- M. As in all cases, the fire officers must use their best judgment when implementing this plan. Consider time of day, amount of traffic, and speed of traffic when deciding how to block the scene. Use of the shoulder or partially blocking an additional lane may be adequate, but only if this provides the safety barrier that the crews require to operate safely.
- N. Training references: Refer to the "Response on Roadways/Freeways" and the "Leave a Lane" training PowerPoint presentations for more information.

## V. WORKING WITH OTHER AGENCIES

- A. Care must be exercised to prevent obstructing any more of the highway than is necessary to protect the accident scene.
- B. Once active firefighting operations are concluded (the fire has been knocked down and hose lines can be moved out of the traffic) or extrication operations are complete (victims removed and equipment moved out of traffic) and it is safe to do so, reposition apparatus to free up adjacent lanes. It is important to work with CHP and Caltrans personnel in order to keep traffic flowing.
- C. CALIFORNIA HIGHWAY PATROL (CHP)
  - 1. CHP is the IC on all emergency related incidents on all freeways and state highways and is ultimately responsible to coordinate the operations thereof. the CHP commonly refers to the "IC" as the "OIC" or Officer in Charge.

<b>SCOTTS VALLEY FIRE PROTECTION DISTRICT</b>			
<b>STANDARD OPERATING PROCEDURES</b>	<b>ARTICLE: II</b>	<b>SOP: 2119</b>	
	<b>SECTION: 2100</b>	<b>SAFETY</b>	
	<b>SUBJECT: INCIDENTS ON ROADWAYS/FREEWAYS</b>		

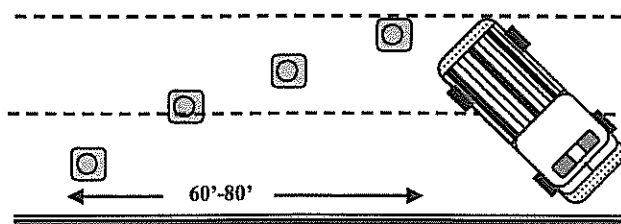
2. Responding fire units should establish a liaison with CHP as soon as possible to jointly coordinate a safe work zone and to determine how to most efficiently resolve the incident.
  - a) In the absence of the CHP at the scene, fire personnel should attempt to protect evidence at the accident scene and perform necessary traffic control to prevent further accidents.
3. Fire personnel will work with CHP to complete necessary fire and rescue functions.
4. The Fire Agencies should continue to respond with whatever units they think are needed pending the arrival of a CHP or fire unit and a size-up is given.

D. Caltrans

1. Caltrans can provide resources for an extended incident including: cones, signs, arrow boards and additional safety equipment. Keep in mind that Caltrans response can be 20-30 minutes, so an early call for them should be made if you are involved in an extended incident. Fire Officers shall coordinate Caltrans requests response through CHP.


**VI. USE OF CONES AND FLARES**

- A. Cones and flares only suggest the transition and tapering into other lanes, they do not provide scene protection.
- B. Cones and flares do provide advanced warning for approaching vehicles and should be used when possible in conjunction with blocking.
- C. 4 Cones at 15-20' intervals upstream of the blocking apparatus should provide adequate initial tapering until more cones or flares can be secured. (See fig. 5)



**Fig. 5 – The greater the traffic speed, the greater the upstream distance for cone placement**

- D. Personnel placing and retrieving cones and flares must do so while facing oncoming traffic.

<b>SCOTTS VALLEY FIRE PROTECTION DISTRICT</b>			
<b>STANDARD OPERATING PROCEDURES</b>	<b>ARTICLE: II</b>	<b>SOP: 2119</b>	
	<b>SECTION: 2100</b>	<b>SAFETY</b>	
	<b>SUBJECT: INCIDENTS ON ROADWAYS/FREEWAYS</b>		

- E. Placing flares adjacent to and in combination with traffic cones for nighttime operations greatly enhances scene safety.

**VII. OPERATIONS**

- A. The first arriving fire unit should size up the incident
  - 1. Be sure you are at the right incident, sometimes there are multiple accidents in the same vicinity, and confirm the location.
  - 2. State the number, type and condition of involved vehicles, number of victims, type of injuries (DOA, trapped, etc.).
  - 3. Traffic conditions, identification of lanes blocked or obstructed, type of traffic control needed (on scene or road closures, slow down, etc.).
  - 4. Hazards involved, fire, HAZMAT, debris, etc.
  - 5. Cancel any unneeded fire/ambulance units as soon as possible.
- B. Notify incoming units of best access
- C. Make sure that all fire units park properly and shut off unnecessary lights.
- D. Deploy resources to handle fire or toxic chemical hazards, remove and treat victims.
- E. Prior to leaving the scene, fire personnel should coordinate with the Incident Commander and/or law enforcement to determine any additional needs.

**VIII. FIRE OPERATIONS**

- A. Fire Officers should position apparatus and hose lines in manner that creates the least impact on continued traffic flow, however, safety and effective operations are a priority.
- B. Fire Officers should consider the effects of water run-off and smoke drift on the incident.
- C. Water sources – Fire Officers should be cognizant of the lack of water sources on the freeway and should consider alternative means of obtaining water.



**SCOTTS VALLEY FIRE  
PROTECTION DISTRICT**



<b>STANDARD OPERATING PROCEDURES</b>	<b>ARTICLE: II</b>	<b>SOP: 2119</b>
	<b>SECTION: 2100</b>	<b>SAFETY</b>
	<b>SUBJECT: INCIDENTS ON ROADWAYS/FREEWAYS</b>	

1. Tank on fire apparatus.
2. Additional pumpers.
3. Hydrants on surface street adjacent to the interstate.
4. Relay pumping.

**IX. HAZMAT**

- A. Hazardous material incidents on the highway are the responsibility of the Highway Patrol. They are the scene manager.
- B. The Fire Department shall assist the Incident Commander in making decisions concerning strategies that are needed to control the incident, i.e., ordering additional fire equipment only, evacuation, controlling efforts, etc.
- C. The law enforcement scene manager makes decisions regarding agencies to be called and those required to respond to the scene.
- D. This needs to be a coordinated effort, and a unified command may work to the best advantage.