



# Fire Protection Training

Procedures Handbook 4300

FIREFIGHTER SAFETY

**TOPIC:** Vehicle As a Refuge

**TIME FRAME:** 30 Minutes

**LEVEL OF INSTRUCTION:**

**BEHAVIORAL OBJECTIVE:**

*Condition:* A written quiz

*Behavior:* Student will describe the procedures to follow when overrun by fire near various CDF model engines.

*Standard:* With a minimum of 70% accuracy

**MATERIALS NEEDED:**

- Chalkboard and chalk
- Various CDF engine models
- Forest fire shelters
- Turnout coats

**REFERENCES:**

- None

**PREPARATION:** Firefighters may find themselves in a fire entrapment situation while on or near CDF mobile equipment. The vehicle can provide an area of refuge. There is no record of any person burning to death inside a vehicle when the proper safety procedures have been followed.

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## VEHICLE AS A REFUGE

PRESENTATION	APPLICATION
<p><b>I. PRE-FIRE PREPARATION</b></p> <p>A. Train the Crew on How to Take Refuge in Different Vehicles</p> <ol style="list-style-type: none"><li>1. Engines</li><li>2. Transports</li><li>3. Crew vehicles</li><li>4. Pick-ups</li><li>5. Sedans</li></ol> <p>B. Cover Any Open Areas in Vehicle Cab Area</p> <ol style="list-style-type: none"><li>1. Poorly sealed doors or windows</li><li>2. Broken windows</li><li>3. Unnecessary holes in floorboards</li></ol> <p><b>II. WHEN ENTRAPMENT IS IMMINENT</b></p> <p>A. Call for Assistance</p> <ol style="list-style-type: none"><li>1. E.C.C., fireline supervisor, I.C.</li></ol> <p>B. Position and Prepare Vehicle</p> <ol style="list-style-type: none"><li>1. Park in safest area possible<ol style="list-style-type: none"><li>a. Low fuel loading</li><li>b. Level terrain</li></ol></li></ol>	<p>Note: Studies currently being conducted to see what affect plastic component decomposition will have on toxicity levels in cab.</p>

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<ul style="list-style-type: none"> <li>c. Away from chimneys</li> <li>d. Away from saddles</li> <li>e. Away from power lines</li> <li>f. Behind embankment, structure, other vehicles or large rocks to maximize heat shielding</li> </ul> <p>2. Vehicle preparation</p> <ul style="list-style-type: none"> <li>a. Fire out around vehicle</li> <li>b. Position vehicle to minimize crew exposure to radiant heat               <ul style="list-style-type: none"> <li>(1) Cab area away from approaching fire if all crew inside cab</li> <li>(2) Cab area toward oncoming fire if crew located outside cab in crew compartment</li> </ul> </li> <li>c. Leave motor running at high (1000 minimum) RPM</li> <li>d. Leave auxiliary pump running at high engine pressure (150 PSI minimum)               <ul style="list-style-type: none"> <li>(1) Do not bring hose into cab</li> </ul> </li> <li>e. Set spring brake to avoid vehicle movement if bumped into gear</li> <li>f. Keep cab sealed up               <ul style="list-style-type: none"> <li>(1) Do not lock doors. Someone else may need in.</li> </ul> </li> </ul>	<p>Safest if entire crew inside the vehicle</p>

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<ul style="list-style-type: none"><li>g. Open Forest Fire Shelters and place in windows to block radiant heat.</li><li>h. Leave vehicle lights on</li></ul> <p>C. Crew Preparation</p> <ul style="list-style-type: none"><li>1. Get everyone into cab</li><li>2. Remain as low in cab as possible</li><li>3. Keep talking and offering encouragement</li><li>4. Cover up with turnout coats if available</li><li>5. Breathe shallow</li><li>6. Stay in cab until fire passes</li></ul>	
<p><b>III. AFTER FIRE PASSES</b></p> <ul style="list-style-type: none"><li>A. Account for All Personnel</li><li>B. Administer and/or Seek Medical Assistance</li><li>C. Extinguish Fires on Vehicle</li><li>D. Give IC, ECC or Fireline Supervisor Report on Conditions</li><li>E. Await Help or Continue Assignment Based on Severity of Injuries and Damage<ul style="list-style-type: none"><li>1. Do not underestimate need for incident stress debriefing</li></ul></li></ul>	

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## ***SUMMARY:***

Many lives have been saved by quick thinking engine companies using the vehicle as a refuge. It is important to practice the "refuge" procedures on all models of CDF engines so everyone is familiar with all models. The life you save may be yours.

## ***EVALUATION:***

A written quiz.

## ***ASSIGNMENT:***

To be determined by instructor(s).