

DRILL OF THE MONTH - NOVEMBER INSTRUCTOR GUIDE

COURSE: SAFETY

Session Reference: 1

Lesson 1-1: Safety Procedures for Responding to Mobile Conveyance Emergencies

Time: 3 hours

Reading/Other Assignments:

Teaching/Learning Level:

Learning/Teaching Aids: Board, easel pads, and/or blank transparencies; chalk and/or markers

Behaviors to Foster: Active participation and discussion to:

- Review traffic control precautions
- Review staging and equipment positioning
- List personal protective equipment required
- Be aware of and take proactive actions to reduce injuries
- Review fire control requirements in critical areas

Task: List and describe the procedures and requirements that will assure safe response to motor vehicle emergencies

Given: Company policies and standard operating guidelines

Standard: OSHA requirements for protective equipment, local/jurisdictional laws, department policies and standard operating procedures

Prerequisite Knowledge:

Prerequisite Skills:

Resources/References:

- Fire Department Safety Officers Association (FDSOA) Safety-Gram, Vol. 6, Issue 2, February 1998.
- NFPA 1006 - Standard for Rescue Technician Professional Qualifications, 2000 Edition (Draft), Chapter 6, Vehicle and Machinery Rescue, JPR 6-7

Lesson 1-1

Attention: (Call to Order)

Motivation: (State Need to Know)

Student Performance Objective (SPO):

Given company policies and standard operating guidelines, list and describe the procedures and requirements that will assure safe response to motor vehicle emergencies so that OSHA requirements for protective equipment, local/jurisdictional laws, department policies and standard operating procedures are incorporated into an overall incident action plan.

Overview/Main Points:

- Gain traffic Control
- Staging and Positioning Equipment
- Personal Protective Equipment
- Proactive Steps to Reduce Injuries
- Incident Fire Suppression/Control

Enabling Objectives (EO):

- SPO 1-1 Given company policies and standard operating guidelines, list and describe the procedures and requirements that will assure safe response to motor vehicle emergencies so that OSHA requirements for protective equipment, local/jurisdictional laws, department policies and standard operating procedures are incorporated into an overall incident action plan.
- EO 1-1-1 Describe the steps to take to gain traffic control at the scene.
- EO 1-1-2 Discuss the conditions of the scene to consider when staging and positioning equipment.
- EO 1-1-3 List and discuss why certain personnel protective equipment is needed in various motor vehicle emergency situations.
- EO 1-1-4 List and discuss what steps to take in motor vehicle emergency situations that are proactive in reducing injuries to personnel on the scene.
- EO 1-1-5 Describe the process for establishing fire suppression/control measures appropriate to the incident.

Opener: Call to order; start with a motivator (need to know) related to objectives and the lesson; state objectives and main points.

I. Gain traffic Control (1-1-1)

- A. Call for police assistance
- B. Position response units
 - 1. One on both sides of incident
 - 2. At safe distances to prevent further accidents
 - a. Visual warning systems must be on and working
 - b. Extend warning system visibility in limited visibility areas:
 - 1) On hills
 - 2) On curves approaching scene
 - 3) For weather such as fog, snow, rain

Each jurisdiction may have different policies that provide direction for calling police or other emergency response to assist. Review these policies so personnel are aware of them and any variations that are allowable.

Departments may have standard operating guidelines that direct where to place response units. Review these and discuss procedures for setting up visual warning systems around the accident scene.

II. Staging and Positioning Equipment (1-1-2)

- A. Determine the major component (center or focus) or hazard of the accident scene
 - 1. What is major hazard of the incident
 - a. Fuel spill or other HazMat
 - b. Debris
 - c. Lane blockage (vehicles, debris)
 - d. Terrain (slopes, ditches, sewers)
 - e. Fire
 - 2. Assess resource capabilities
 - a. Length of hose available

1) Fire attack lines	
2) Hydraulic rescue tool lines	
3) Electrical power support lines	
b. Staffing levels	
1) For portable equipment	
2) For attack lines/water sources	
3) For patient care	
4) For traffic control	
5) For helicopter site	
6) For other (?)	
3. What is withdrawal plan for escalating situations	
a. Check access routes, retreat routes	
b. Position vehicles for retreat upon arrival	
III. Personal Protective Equipment	Discuss the importance of proper and appropriate protective equipment for each task on the scene of a motor vehicle emergency.
A. PPE used, intact, in working order within 25' operational radius (hot zone)	
1. Thermal protection	
2. Injury/trauma protection	
3. Blood borne pathogen hazards	
B. PPE worn correctly as needed for situation	Discuss the importance of using each piece of PPE properly. What are the risks, results, or consequences of not using PPE properly?
1. SCBA face pieces in place with air flowing	
2. Chin straps in place	
3. Eye protection in place	

4. Appropriate gloves on
 - a. Fire fighting gloves for fire fighting
 - b. Rescue gloves for rescue only after fire is under control
 - c. Bio-hazard gloves for patient care (wear under work gloves if patient contact may occur)
5. Appropriate outer wear protection for fire fighting, rescue, patient care (including protective firefighting hoods)

Should latex gloves be worn under fire fighting gloves if the fire fighter is fighting fire? Discuss the possible situations and reasons why or why not. What conclusions can the group draw?

IV. Proactive Steps to Reduce Injuries (1-1-4)

A. Maintain equipment in good condition

1. Check hose, hydraulic, electric, pneumatic lines and connections for damage; assure they are capable of handling impending loads
2. Check blades, edges, tips for nicks; they must be shaped appropriately
 - a. Power tools: cutters, spreaders, ram tips
 - b. Hand tools: axe, pry axe, halligan bars, pinch and pry bars
3. Check foam eductors: they must be clean and matched to the foam concentrate and nozzles
4. Maintain fuel, air, and hydraulic levels
5. Handle fuels and hydraulic liquids properly
 - a. Be aware of their hazardous properties
 - 1) Flammable
 - 2) Corrosive (irritants)

No fuel means rescuers take alternative actions, which may have a higher risk factor

- b. Slippery when spilled (fall hazard)
- B. Train with equipment
 - 1. Know limitations
 - 2. Be aware of inherent hazards
 - a. Flying projectiles from cut ends
 - b. Air bags shifting and sliding out from under vehicles (usually caused by improper placement)
 - c. Cutting tools that throw debris or sparks
 - d. Foam burn back times: how long foam blanket will last per application
 - 3. Know right tool for job
 - 4. Be able to perform on-site maintenance
- C. Avoid items that cause injury until secured
 - 1. Component ends being cut
 - 2. Bumpers with shock absorbers
 - 3. Undeployed air bags
 - 4. Unstable vehicles
- D. Perform scene size up continually
 - 1. Look for sharp edges that develop in cutting operations and blunt them
 - 2. Evaluate foam coverage and reapply as needed
 - 3. Watch resource levels

Teaching Points**Notes**

- a. How much compressed air is left
 - b. What is fuel level
 - c. How much water is in tank; is there another water source
 - d. Is personnel level adequate
- D. Control run-off of hazardous materials
- 1. Excessive flow of water
 - 2. Be aware of terrain flow
 - 3. Seal or provide barrier protection for sewer entry points by diking and damming
 - 4. Clean up hazardous materials with absorbent
- V. Fire Control/Suppression (1-1-5)
- A. Requires one-two persons on a charged, not dry, 1 - 1 3/4" protective fire attack line
 - B. Personnel must be in fully donned PPE w/SCBA
 - C. Independent task to be supervised by rescue sector or safety officer
 - D. Depending on size of mobile conveyance involved, it may be necessary to establish a constant water source, e.g. fixed draft system
 - E. Individual operating the apparatus must ensure that pump is engaged and attack lines are charged
 - F. Fire control measures should be positioned approximately 35-50' from hot zone for visibility and flexibility in deployment depending on size of actual incident

Rescue work is tiring and tired responders make mistakes and get injured.. Set up rehab and get fresh personnel.

Personnel must be trained to in the function of absorbent placement.

Note: No booster lines are to be used for this task.

Note: It is not necessary to use breathing air until incident requirements change.

Note: Personnel assigned to supervise task must not be part of rescue/extrication team.

Note: Do not overlook the importance of using a deck gun for reach and penetration on large vehicles.

Note: Pump operator must have direct eye contact with attack crew.

Note: When possible and situation allows, may be closer if necessary.

SUMMARY

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Lesson 1-1: Safety Procedures for Responding to Mobile Conveyance Emergencies

Student Performance Objective (SPO):

Given company policies and standard operating guidelines, list and describe the procedures and requirements that will assure safe response to motor vehicle emergencies so that performance at emergency scenes is performed according to these policies and guidelines.

Review/Main Points: (Have students draw conclusions about . . .)

- Gain traffic Control
- Staging and Positioning Equipment
- Personal Protective Equipment
- Proactive Steps to Reduce Injuries
- Incident Fire Suppression/Control

Evaluation:

Oral Review: Under each review point, recall and list three features from the discussion. Make a note of these points or highlight points in your notes so you may use them for exam review.

Other Evaluation: Create a quiz to check level of understanding. Participants can grade their own and ask questions to clarify and understand their wrong answers. This quiz is diagnostic and may also be given as in-class group assignment to generate discussion.