



Missouri Valley Fire & Rescue Department

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STANDARD OPERATING GUIDELINES

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Chronological History

Effective: January 25, 2010

Roadway Incident Response

I. PURPOSE:

To provide guidelines for use by all Missouri Valley Fire Department personnel and support agency personnel for establishing a safe temporary work zone while operating at the scene of an emergency, on or near any roadway, highway, interstate, or city street.

II. DEFINITIONS:

Advance Warning- Notification procedures used to warn approaching motorists of the need to move from driving normally to driving as required by the temporary emergency traffic control measures ahead.

Block- Positioning of Fire Department apparatus at an angle to the lanes of traffic, creating a physical barrier between upstream traffic and the emergency work area. Includes “Block to the right” or “Block to the left.”

Buffer Zone- The distance or space between emergency personnel and vehicles in the protected work zone and nearby moving traffic.

Downstream- Beyond the incident in the direction traffic normally flows.

Portable Message Signs- Moveable, electronic message signs that may be programmed with traffic control information and emergency warnings for motorists.

Programmable Message Board- Permanently mounted, electronic message boards that may be utilized to display temporary emergency information for motorists, including: emergency scene ahead, lane closures, traffic detours, traffic delays, etc.

Roadway incident levels-

Minor- Expected duration is less than 30 minutes

Intermediate- Expected duration of 30 minutes to 2 hours

Major- Expected duration is greater than 2 hours

Shadow- The protected work area of a roadway incident shielded by the block from fire apparatus and or other emergency vehicles

Taper- The action of merging several lanes of moving traffic into fewer moving lanes.

Temporary work zones- The physical area of a roadway within which emergency personnel perform their mitigation tasks

Transition Zone- The lanes of roadway within which upstream motorists must change their speed and position to comply with the traffic control measures established at an emergency scene.

- **Upstream-** Prior to the incident in the direction traffic normally flows. On a two-way street or un-divided highway, upstream traffic will approach from both directions.

III. PROCEDURES:

A. **This policy shall apply to all roadway responses.**

B. **Safety Tactics for Fire Personnel-** The risk of injury and death when working in and near moving traffic is extremely high. All personnel shall use the following tactics to keep themselves safe and reduce their risks:

1. Personnel should never turn their back to approaching traffic
2. Department issued, high visibility, reflective vests shall be worn during all roadway operations, except during actual firefighting activities
3. Structural firefighting helmets shall be worn during all roadway operations
4. Full structural protective clothing, including reflective vests, shall be worn at all extrication operations
5. All personnel shall exit and enter their units with extreme caution, remaining alert to moving traffic at all times
 - a. Always look before opening doors and stepping out of apparatus into any moving traffic area.
 - b. When walking around fire apparatus or emergency vehicles, be alert to proximity to moving traffic
 - c. Stop at the corner of the unit, check for traffic, and then proceed along the unit remaining as close to the emergency vehicle as possible
6. Always maintain an acute awareness of the high risk of working in or near moving traffic
 - a. Never trust moving traffic
 - b. Always look before you move
 - c. Always keep an eye on the moving traffic

7. Working with law enforcement personnel, firefighters shall establish advance warning through traffic control measures upstream of incidents to allow approaching motorists to reduce travel speeds in the transition zone and pass the incident safely.

8. Medic crews arriving on the scene ahead of responding fire apparatus shall use extreme caution when accessing the emergency scene and while working on the incident scene.

C. **Safety Tactics for Fire Apparatus-** In addition to conveying fire personnel to emergency scenes, fire apparatus shall utilize the following tactics to create a safe temporary work zone:

1. The first-arriving fire apparatus shall be angled at about 45 degrees on the roadway with a “block to the left” or “block to the right” to establish a physical barrier between the incident and oncoming traffic.

2. Blocking apparatus shall be positioned in a manner that will prevent it from entering the temporary work zone if it is struck by passing vehicles (turning the front tires away from the temporary work zone).

3. Apparatus shall be used to block a temporary work zone large enough for all necessary emergency operations.

4. If practical, apparatus shall be placed to block the lane of the incident and one additional lane. However, the road should not be closed unless absolutely necessary and with the agreement of law enforcement personnel.

5. If practical, apparatus shall be placed so that firefighters can exit on the shadow side.

6. Medic units shall be placed within the temporary work zone downstream of the incident with their loading doors angled away from moving traffic.

7. When a charged hose line may be placed in operation, the fire apparatus shall block in a manner that the pump panel is down stream, on the opposite side of on-coming traffic.

8. At dawn, dusk, and nighttime, firefighters shall ensure that apparatus headlights, spotlights and emergency strobes that may impair motorists’ vision are turned off. Emergency warning lights should be kept to a minimum; more is not better.

9. Personnel shall utilize generator powered scene lighting to illuminate the temporary work zone as needed.

10. If the emergency is at an intersection or near the center of the roadway, two or more sides of the incident shall be protected.

a. Blocking to create the temporary work zone must be prioritized, starting with the most critical or highest traffic flow to the least critical traffic flow.

b. Consider requesting additional police assistance. Provide specific directions to the police officers of exact traffic control needs. Police vehicles must be strategically positioned to expand the initial protected work zone from traffic that is approaching from opposite directions. The goal is to effectively block all exposed sides of the work zone.

11. Traffic cones shall be deployed, starting at the blocking apparatus and placed upstream, to increase the advanced warning provided to approaching motorists.

a. Personnel shall place cones and retrieve cones while facing oncoming traffic

b. Traffic cones shall be deployed at 25-foot intervals upstream of the blocking apparatus and placed to create an adequate taper.

c. Traffic cones from the Medic unit shall be deployed at intervals between the blocking apparatus and the Medic unit to help define the temporary work zone and buffer zone.

d. The driver of the emergency apparatus (fire or medic unit) shall be responsible for deployment of the traffic cones. If the driver is also the Paramedic on scene, patient care shall be the priority and traffic cone deployment shall be delegated to another crew member by the Company Officer.

D. Safety Strategy for Incident Command- The first-arriving Officer shall establish Command and be responsible for ensuring that the emergency operation is conducted in a safe manner. The Incident Commander shall:

1. Ensure the first-arriving fire apparatus establishes an initial block to create a safe temporary work zone.

2. Ensure all personnel utilize the department issued high visibility reflective vests and appropriate personal protective equipment.

3. Assign parking locations for all units as well as later-arriving apparatus.

4. Ensure that on-scene units are parked within the protected temporary work area (shadow) created by the blocking apparatus and that they are parked with the patient loading area away from the closest lane of moving traffic.

5. Ensure that appropriate transition zones and buffer zones are established and marked with cones.

6. Establish communications with other agencies on the scene to ensure that the overall response is as smooth and effective as possible.
7. Act as scene safety officer until this assignment is delegated.
8. Manage the termination of the incident as swiftly and effectively as possible. Personnel, apparatus, and equipment shall be removed promptly to reduce exposure to traffic hazards and minimize congestion.

E. Programmable Message Boards and Portable Message Signs.

1. The Programmable Message Boards that are permanently mounted on Interstate 29 and Interstate 680 may be utilized to give advanced warning to motorists of an emergency scene ahead, lane closures, and detour routes, etc.
2. Utilization of the Programmable Message Boards shall be done only after consultation with on-scene Law Enforcement personnel and agreement on a traffic management strategy.
3. Programmable Message Boards shall be utilized on all major incidents. Programmable Message Boards shall be utilized on intermediate incidents at the discretion of the Incident Commander and/or Law Enforcement.
4. To activate a Programmable Message Board, contact Fire Dispatch with the location and nature of the incident and request that the DOT message boards be activated. 911 Dispatchers will contact the State DOT Operations Support Center and state DOT personnel will develop the appropriate message to be displayed over the message boards.
5. Custom messages, such as specific road closures or detour routes may be programmed into the message boards at the request of the Incident Commander, Law Enforcement, and/or at the recommendation of Iowa Department of Transportation personnel.
6. Portable Message Signs may be requested from the Iowa Department of Transportation for major incidents at the discretion of the Incident Commander and/or Law Enforcement.

F. Equipment- The following equipment shall be available and used appropriately:

1. Safety vests meeting the requirements of ANSI 107- Standard for High Visibility Public Safety Vests
2. A minimum of six (6) traffic cones, 28 inch high fluorescent orange with white reflective striping, as described in the Manual on Uniform Traffic Control Devices.

**By Authority of:
Fire Chief**

Eugene Shaeffer