

The New Federal Rule 23 C.F.R. Part 634 – Worker Visibility (High-Visibility Vests)

Background

On August 10, 2005, President Bush signed the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which authorizes the Federal surface transportation programs for highways, highway safety, and transit for the 5-year period 2005-2009. Pursuant to this law, the Federal Highway Administration (FHA) proposed a new federal regulation on April 24, 2006 published in volume 71 Federal Register, page 20925 (71 Fed. Reg. 20925) that requires all workers within the right-of-way of a Federal-aid highway to wear an ANSI 107 (2004) Class 2 or 3 high-visibility vest. On November 24, 2006 the FHA published the final rule, which becomes effective on November 24, 2008, at 71 Fed. Reg. 67792. All first responders working within the right-of-way of a federal-aid highway are covered by the new Rule. Why does extra visibility protection matter? Check out: http://firefighterclosecalls.com/cc_apparatus.php

It is a Rule with good intent but it was written with little input or involvement of the fire service. We, the fire service, have to take some responsibility for not participating in the rule making process. The new Rule creates a dilemma for firefighters responding to vehicle, brush/wildland, and/or structure fires along Federal-aid highways. It is NOT appropriate for firefighters engaged in direct fire attack operations to wear high-visibility vests that were not designed for use in proximity firefighting. Although some vests are available that have flame-resistant properties, they are not designed for proximity firefighting. Additionally, ANSI 107(2004) the high visibility clothing standard contains wording in the preface that clearly indicates that the standard was not written with emergency services in mind and that more appropriate standards (i.e., NFPA) are available to provide guidance for firefighter personal protective equipment.

The full wording of 23 C.F.R. Part 634 – Worker Visibility Rule is available here: http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=2006_register&docid=E6-19910

This new Federal rule cannot be changed or withdrawn, but the revision process currently underway for the Manual of Uniform Traffic Control Devices (MUTCD) can be used to “fix” the problem. The Emergency Responder Safety Institute (ERSI) (www.respondersafety.com) has developed and submitted suggested wording for revisions to the MUTCD to correct the conflicts created for fire departments working on Federal aid highways. It will be sometime in 2009 before those changes take effect.

What are Fire, EMS and Rescue Services supposed to do in the meantime?

It is important to keep in mind that the Emergency Responder Safety Institute, OSHA, NIOSH, the U.S. Fire Administration, the U.S. Department of Transportation and the National Fire Protection Association all SUPPORT AND ENCOURAGE the use of high-visibility vests for emergency services workers (Firefighters, Emergency Medical Personnel and Law Enforcement Officers) when working on roadways where they are exposed to vehicle traffic and not directly exposed to heat, flame, fire or hazardous materials. It is also important to

keep in mind that the intent of the new Federal rule is to decrease the likelihood of worker injuries or fatalities caused by being struck by vehicles, which is a primary goal shared by the fire service.

High-visibility vests are only one component of a system of protective strategies to protect firefighters from being struck by vehicles while working along roadways. Each fire department and public safety agency should work to develop a complete program of proactive strategies to protect their personnel including the following tactics.

Proactive Strategies to Protect Firefighters from being struck by vehicles include:

- 1) Training for all personnel on roadway incident safety;
- 2) Proper PPE – Turnouts/bunker gear (NFPA1971), helmet, hi-visibility vests;
- 3) Proper positioning of apparatus to create a safe zone;
- 4) Proper use and deployment of traffic control devices;
 - a. Signs, cones, flares, police cars, variable message signs
- 5) Multi-agency & multi-jurisdictional cooperation, collaboration & communication;
 - a. Multi-agency training on roadway incident safety
- 6) Fire apparatus enhanced visibility design features.
 - a. Emergency warning lights designed for on-scene protection
 - b. High-visibility (reflective and florescent) chevrons on the rear of apparatus that comply with the guidelines recently passed for the newest edition of NFPA 1901

Problem: For firefighters engaged in direct firefighting and/or hazardous material operations along federal-aid highways, how do we comply with Rule 634 while at the same time complying with OSHA and NFPA standards regarding personal protective equipment?

Explanation: The ANSI 107 (2004) standard clearly indicates in the Forward section of the standard that it was NOT written for workers who have competing exposures, like firefighters engaged in firefighting activities. It also suggests that NFPA standards for personal protective equipment should provide guidance for firefighters. OSHA regulations require employers to complete and certify PPE Hazard Assessments which identify all job hazards and the correct PPE for workers to wear when engaged in those activities. Since there are no high visibility vests available on the market that have been designed for “proximity firefighting” (NFPA Standards) it is not possible for the “reasonable and prudent” fire chief to properly comply with all applicable rules and standards after Nov.24, 2008. For direct firefighting and hazardous materials operations, the reasonable and prudent fire chief today will follow NFPA standards to properly protect their personnel which also allows them to comply with OSHA regulations. Rule 634 just requires the use of ANSI 107 Class 2 or 3 garments with no exemptions or guidance specifically for firefighters, yet it does not exclude them either. Firefighters are clearly included in the definition of “worker” in the rule language.

Solution: Emergency services organizations should do the following:

- 1) REVIEW the most current version of NFPA 1500-2007 and in particular Section 8.7 - Traffic Incidents - and document your agencies actions to comply with those guidelines.
- 2) DEVELOP and document an SOP/SOG for roadway operations and use it as part of your training program and response operations. This is one of the components of the NFPA 1500-2007 standard.

3) ALL public safety agencies (FD, PD and EMS) should complete documented PPE Hazard Assessments using guidance provided by OSHA on their webpage here:

<http://tinyurl.com/59nkct>

or

http://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=STANDARDS&p_id=10120

Your agency does not have to be located within an OSHA plan state to comply with OSHA regulations. OSHA regulations can only be enforced for public sector agencies located in OSHA Plan states. However; you should consider OSHA standards to be "best practices".

4) As part of the PPE hazard assessment process and documentation clearly identify ALL the hazards (including moving traffic at roadway incidents) and document specifically what PPE personnel should be wearing for the various types of emergencies your agency responds to - fires, medical assists, hazmat, motor vehicle crashes etc.. That guidance should detail what personnel attacking a vehicle, structure or ground cover fire should be wearing (and that would NOT include high visibility vests) and any other precautions being taken to protect them (i.e. all fire attack should be conducted from within a protected "safe zone" secured by fire apparatus positioned and parked correctly to protect personnel in accordance with your agency's Roadway Incident Safety SOP/SOG).

5) Personnel who are on-scene and are not directly exposed to fire, flame, excessive heat or hazardous materials would be expected to wear high-visibility garments (ie. pump operators, fire-police, support personnel, command officers etc.) Any members assigned to respond to an emergency situation (ie. RIT members) should be considered in the same environment as those engaged in active fire attack and should be staged OFF of the roadway and in the protected safe zone where they would not require hi-visibility gear until after the scene is under control at which time they could don a vest. Any personnel on scene could easily remove (tear-away) a high-visibility vest to react to unusual circumstances if necessary and don an air-pak to render assistance with direct firefighting actions.

6) DOCUMENT that your firefighters have completed roadway incident safety training. Document means that you identify the subject, content (agenda), instructor, time, date, location and list of attendees with any test or quiz results (all OSHA requirements for employee safety training). The "Watch Out Behind You" program available for FREE from www.respondersafety.com is an excellent tool for a local training program but other materials also exist including some very good programs already in place in numerous FD's across the country.

7) PURCHASE an appropriate number, type and sizes of high-visibility vests for your personnel. Appropriate means ANSI-107(2004) Class 2 or 3 garments OR ANSI-207(2006) compliant garments. Manufacturers are in some cases "double-tagging" those garments that meet both ANSI 107 and ANSI 207 standards and that would be the best way to go for new purchases right now. Be sure to obtain vests of the proper size to fit over turnout gear usually starting at XL and above. Look for or request 4 or 5-point breakaway features. Be sure to include information about the use (don – adjust size – remove and store properly), care and maintenance of the garments in your roadway incident safety training and include that info in your training documentation as described above (also an OSHA requirement). It

is appropriate in some cases to wear high-visibility vests over top of full bunker gear, especially in cold weather situations and responses to motor vehicle crashes where there is no fire.

REMEMBER: Firefighters and emergency medical personnel do not ALWAYS wear their full turnout gear ensemble when responding to every emergency incident! The highest percentage of emergency responses (60% or better – fill in your own local EMS response number) does not involve wearing full turnouts. **Even though some manufacturers are suggesting that the trim on bunker gear is adequate protection for working on a roadway. We disagree.** They are forgetting that full turnouts are not ALWAYS worn and that turnout gear gets dirty which reduces their reflective and fluorescent trim features. Also, not all turnout gear uses the same trim configuration as those tested for visibility features. Turnout gear offers no visibility enhancement if they are not actually on the personnel and in the heat of summer, firefighters are often in a hurry to shed the heavy coat to avoid heat related injuries. A high-visibility vest serves a critical need for those personnel who are not wearing full bunker gear under most emergency conditions.