

External Peer Reviewer Comments and NIOSH Responses
NIOSH ALERT: Preventing Deaths and Injuries of Fire Fighters When
Fighting Fires in Unoccupied Structures

September 30, 2008

Reviewer 1:

Comment: Provide updated figures for the annual fire fighter death and injury statistics.

Response: The “Background” section (pages 1-2) was edited to include these updated statistics through 2006.

Comment: GENERAL COMMENT. It is unclear if the scope of this Alert is intended to be applied to buildings under construction/buildings being deconstructed. While fire events in this scenario may involve on site- construction workers, some of these fires may start when the building is either not occupied or it may involve a scenario where all of the workers have successfully escaped. The August 18, 2007 fire at the Deutsche Bank in New York City that resulted in the two fire fighter fatalities is a case in point.

Response: GENERAL COMMENT. A new sentence was added to the end of the first paragraph on page 1 which reads ... “Unoccupied structures, whether in current use, under construction, under renovation, or condemned, must be considered expendable in order to decrease the risk to fire fighters.” This edit addresses comments from both the NFPA and the USFA. The intent of the NIOSH ALERT is to cover all unoccupied structures.

Comment: SECOND PAGE OF INTRO: Fourth bullet in left column. May want to consider a note on evacuation during salvage/overhaul operations after the fire is extinguished.

Response: The bullet on evacuation in the tear-out sheet was expanded to note the use of such signals during overhaul and salvage as well (in revised draft, page 2, 3rd bullet under Incident commanders and incident safety...).

Comment: PAGE 1. The statistics can be updated to reflect 2006 data.

Response: Updated NFPA statistics through 2006 were incorporated into the revised draft (pages 1 and 2).

Comment: PAGE 2. Revise reference to NFPA as shown. The source of the text is NFPA 1500, not the NFPA 1500 Handbook. Make other text changes as shown (specifics were shown on an annotated copy of the original draft).

Response: Revisions were made.

Comment: PAGE 2. Add code to the first sentence as shown (specifics were shown on an annotated copy of the original draft).

Response: Revisions were made.

Comment: PAGE 3. Update reference to 2008 edition of the two standards as shown (specifics were shown on an annotated copy of the original draft).

Response: Revisions were made.

Comment: PAGE 7. Consider adding a specific heading or discussion for buildings under construction/under deconstruction.

Response: No revisions were made. The scope of the document was clarified at the end of the 1st paragraph on page 1. The document is meant to apply to any unoccupied building, whether in current use, under construction, abandoned, or in the process of being dismantled.

Comment: PAGE 10. Delete reference to NFPA 1500 Handbook. Update editions of NFPA 1521 and NFPA 1501 as shown (specifics were shown on an annotated copy of the original draft).

Response: Revisions were made.

Reviewer 2:

Comment: The FLYER: Firefighters (1 recommendation). A key concern should be that the flyer only identifies one (1) action that Firefighters can do to reduce their risks in such structures – and that is to report “conditions & hazards” to others. It suggests nothing regarding the firefighters (employees) personal responsibility for compliance to safety rules, wearing appropriate safety equipment / PPE, the maintenance of tactical crew discipline, the avoidance of hazards or conservative tactics, etc. The subliminal message sent is that firefighters (employees) are not individually responsible for their own safety beyond providing risk information to their superiors – which is clearly not the case and runs counter to most risk reduction initiatives.

Response: This is an excellent comment. Two new bullets were added. The first new bullet lists actions fire fighters can take to be responsible for their own safety. The second new bullet reads, “Be constantly aware of your surroundings.” Corresponding new bullets and supporting text were added to the “Recommendations” section of the document. This change was made to both the tear-out sheet and the main body of the ALERT.

Comment: The FLYER: Fire Departments (11 recommendations). The category creates an odd combination of suggestions, some addressing F.D. policy others operational tactics, all of which are constructive in and of themselves – but are done in such fashion as to suggest some amorphous organizational (employer) accountability for such policies and practices, ostensibly exclusive of leadership and supervision. This material would probably be better “received” by its intended audience if it were specifically directed to the responsible personnel, i.e. Policy makers, Chief Officers, Company Officers, etc. By example: How does and who in, the FIRE DEPARTMENT is responsible to: “Establish, clearly mark and monitor a collapse zone...” as recommended? Perhaps they are the personnel in the following category, in which they do not suggest such responsibility or accountability in the recommendations.

Response: The words (Chief officers, company officers and policy makers) were inserted between the words “Fire departments” and “should” in the bolded title “Fire departments should take the following steps.....” to stress the command individuals who can influence safe work practices at the fireground. This change was made to both the tear-out sheet and the main body of the ALERT.

Comment: Incident Commanders & Safety Officers (3 recommendations) Most of the recommendations in the previous section could be arrayed by position / function in this category, which would highlight and reinforce the various INDIVIDUAL’S responsibilities irrespective of the organization.

Response: The title “Incident Commanders & Safety Officers” has been moved up 4 bullets to better indicate that Incident Commanders and Safety Officers can influence safety in additional ways. This change was made to both the tear-out sheet and the main body of the ALERT.

Comment: The “report” covers the same recommendations as the “flyer” in greater detail and with more supporting information which is on point. It would be nice for NIOSH to rely upon USFA’s firefighter death and injury data.

Response: No change was made to the draft ALERT as this is a general comment more than a comment on specific text in the draft ALERT.

Comment: The bulk of information in the “alert” is relevant and appropriate – however the presentation format could be revised to more accurately reflect “individual” responsibility and accountability for such actions.

Response: As noted above, the authors clarified who in the fire department can act upon recommendations directed at fire departments (chief officers, company officers, and policy makers).

Comment: They need to focus more on the requirement that the firefighter be constantly aware of their surroundings. They need to make that a focus. Whenever you are in a vacant building (of any type) NO RISK is worth their life or injury. It’s just a building.

Response: As noted above, bulleted recommendations were added to the sections in the tear out sheet and full alert directed at fire fighters to be responsible for their own safety and to be aware of their surroundings.

Comment: The need to focus on the requirement for a Rapid Intervention Team being in place anytime people are in a fire. It seems obvious but it’s not mentioned in the current draft.

Response: This new bullet was added on page 7.

Comment: They speak to the need to be aware of a collapse zone. I would make it stronger somehow. From parking of trucks to setting up staging and rehab, collapse zones are needed. They also move depending on the spread of the fire and the IC should always be expecting collapse.

Response: Two new sub-bullets were added under the collapse zone bullet on page 8 which reads “Establish, clearly mark and monitor a collapse zone...” These new sub-

bullets address the fact a collapse zone can move as the fire progresses and that the collapse zone should be taken into consideration when placing fire apparatus and staging resources at the incident scene.

Comment: Vacant Buildings are an AUTOMATIC red flag to me. If the building is empty, then we should write many of them off! Obviously a house fire or a building you have a chance to catch the fire quickly are ones you should make an attack. On an older vacant or risky vacant property you should marshal all the resources you might need before going in and taking a risk. Those resources might mean calling extra companies, getting an adequate water supply, setting up RIT, getting a full company of personnel and equipment before making the initial attack.

Response: This comment is more a general statement of fact than a specific comment on the content of the draft ALERT. No changes were made to address this comment as the authors feel the draft ALERT already addresses the issues of defensive operations (write many of them off!) and adequate resources (you should marshal all the resources you might need).

Comment: Firefighters MUST learn to be less aggressive. The Charleston firefighters wore it as a badge of courage and paid the price. If the building is vacant, the IC must assess the risk vs. the potential to injure or kill the firefighters.

Response: This comment is more a general statement of fact than a specific comment on the content of the draft ALERT. No changes were made to address this comment as the authors feel the main focus of the draft ALERT is “Risk vs Gain”.

Reviewer 3:

Comment: No concerns at all – looks excellent. The issue MUST continue to be pushed related to FF’s risking their lives where there is no life to save.

Response: The authors are most appreciative of this comment as the reviewer is highly respected in the fire service and widely recognized as one of the leading advocates of fire fighter safety and health in the United States.

Reviewer 4:

Comment: General: Throughout, you use “firefighter” where you mean all personnel, including officers. Not likely to get confused (would the FFs leave on an evacuation, and the officers not? – unlikely). But “personnel” is an easy substitute.

Response: No revisions were made. The authors reviewed the use of this term, and thought the document was clear and direct.

Comment: Segment on steps for FFs to take (in both long & short alert):

- Suggest adding a bullet to communicate hazardous conditions with fellow crew members as well as up the command chain. This may be the thing to do first if conditions are really bad (in which case it should be obvious to communicate to each other, but...)

- Suggest adding a bullet to notice & report signs indicating whether occupants are in or out. This is everybody’s responsibility.

Response: These changes were not made. The authors felt that the first bullet identifying steps that fire fighters should take, in both the tear-out sheet and full alert, for fire fighters to report conditions and hazards through the command chain adequately conveyed the concept of reporting signs regarding occupancy. The recommendation to encourage fire fighters to also communicate hazardous conditions to their coworkers was not incorporated because of the need for disciplined radio communication on the fireground. If a fire fighter reports hazardous conditions through the command chain, this should ultimately be heard by others.

Comment: Bullet on preplanning (in both long & short alert): Changes trusses to “lightweight construction,” or reword to “trusses and other lightweight construction” – to capture things like composite joists.

Response: Trusses were revised to “trusses and/or lightweight construction” in these bullets.

Comment: In the standards section of the longer alert, the IBC is probably worth mentioning, as the much more widely used building code throughout the country.

Response: A description of the International Code Council and its maintenance of the International Building Code (IBC) was added to the “Current Standards” section (page 3 in the revised draft).

Comment: In the longer alert, in the NFPA 1500 bullet on page 3, change “chapter 4.2” to “section 4.2” for proper NFPA terminology.

Response: This change was not made. We relied on NFPA reviewers to identify appropriate NFPA terminology and references. This was not among the revisions suggested by NFPA.

Comment: In the longer alert, in the size-up bullet on page 7:

- Change “tenants” to “occupants” (a broader term)
- Be sure to get clear reports from neighbors or bystanders – does “save my baby” mean a child or a pet?

Response: “Tenants” was changed to “occupants” (1st bullet under the recommendation, “Make sure that the incident commander or incident safety officer conducts an initial size-up...” on page 8 of the revised draft. A new bullet (2nd bullet) was added to this section that now reads: “Get clear reports from occupants, neighbors and by-standers. Does “save my baby” mean a child or a pet?”

Comment: In the longer alert, in the type of building bullet on page 7: in portion (1), you should distinguish between FFs and officers—you can have enough FFs but not enough officers.

Response: This sub-bullet was modified to add “support officers” to the list of resources that need to be considered.

Comment: In the longer alert, in the resources bullet on page 8, change “Emergency Medical Technicians” to “Emergency Medical Personnel” to capture the full range (medics and so on).

Response: This revision was made (page 9 of revised draft, 2nd bullet under “Consider all manual fire-suppression...”).