



**National Fire Fighter Near-Miss Reporting System**  
**Reports related to training where instructors made mistakes as well as**  
**situations where additional instruction could have prevented mistakes.**

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**Report Number:** 06-111

Report Date: 02/20/2006 2225

### **Demographics**

Department type: Volunteer

Job or rank: Other: Training Officer

Department shift: Respond from home

Age: 52 - 60

Years of fire service experience: 21 - 23

Region: FEMA Region IV

Service Area: Urban

### **Event Information**

Event type: Fire emergency event: structure fire, vehicle fire, wildland fire, etc.

Event date and time: 06/20/1984 1430

Hours into the shift: 0 - 4

Event participation: Involved in the event

Weather at time of event:

Do you think this will happen again? Uncertain

What were the contributing factors?

What do you believe is the loss potential?

### **Event Description**

Our department was called out to a double wide mobile home fire. There were three of us that responded. I was Chief at the time. We found the structure involved in the front with flames coming out of the front windows. We charged a 1 3/4" line and began to knock down the fire. We had been in the defense attack mode about 15 minutes, when I decided to walk around to the rear while the two firefighters continued to battle the blaze in front.

At the rear of the structure about six feet from the rear wall, was an eight foot propane tank. What we did not know was that the fire had burned through the rear wall and was rapidly heating up the propane tank to the point that the water that had fell into the valve containment bowl on top of the tank was boiling like a tea kettle. I had no idea why the pressure relief valve had not functioned, but I knew that we were very close to leaving this world. Needless to say we immediately began to forget about the structure and started to cool the tank. At that time I had attended two classes from the state fire academy that amounted to introduction to basic firefighting. However, my instructors had repeatedly stressed how important it was to do a walk around size-up. I had failed to do that and it almost cost our lives.

I am now a state Fire Academy certified Level two entry firefighter with 23yrs. experience. As Training Officer for our department, I tell our firefighters that unless they have the ability to see through structures, they had better be doing a walk around size-up. In my opinion, one of the most important aspects of any kind of emergency is situational awareness and in that incident I completely lost sight of that. Having looked at the results of the reports that were sent in by other departments' near-miss incidents, I was stunned to learn that the main contributing factor in the majority of those incidents was the same as our incident, situational awareness.

## **Lessons Learned**

Never ever forget to do a walk around size-up and stress to every firefighter in your department that overall safety of the incident is everyone's responsibility. If someone forgets to do a size-up, bring it to the IC immediately and if that doesn't work, then do it yourself. After a tragedy happens it is too late to start pointing fingers at other firefighters for failing to properly secure the scene. After all, it may be the last time that you ever have a chance to do anything!!!

**Report Number:** 06-266  
**Report Date:** 05/05/2006 1503

### **Demographics**

Department type: Combination, Mostly volunteer  
Job or rank: Other: Emergency Management  
Department shift: Respond from home  
Age: 43 - 51  
Years of fire service experience: 21 - 23  
Region: FEMA Region IV  
Service Area: Rural

### **Event Information**

Event type: Other: Hazmat Release  
Event date and time: 04/06/2006 1300  
Hours into the shift: 0 - 4  
Event participation: Witnessed event but not directly involved in the event  
Weather at time of event:  
Do you think this will happen again? Uncertain  
What were the contributing factors?

- Individual Action
- Training Issue
- Decision Making

What do you believe is the loss potential?

- Environmental
- Life threatening injury

### **Event Description**

A local company called the fire department business line to report a chemical leak. The career Fire Chief sent two awareness leak trained volunteer firefighters to investigate the leak. They respond alone in a tanker truck to the company. They find a leaking chlorine tank. The firefighter reported the odor of Chlorine to the chief who was not on scene via cell phone. A company rep. joins the firefighters on scene and reports a leaking quarter inch line, which can be shut down by turning the valve off on the tank. The fire chief directs the lone fire fighters again by cell phone to go on air and shut the leaking valve off. The firefighters enter the area and complete the task. They return to the station.

The following events occurred days later. The firefighters were training in the station, when other firefighters notice a strong odor of chlorine on their gear. The gear was removed and bagged. The SCBA that were used had visual corrosive signs on metal snaps and buckles. The firefighters admitted to rashes on skin and soar throats after the event. The symptoms by this time had self corrected. The LECP became involved and reported the spill to the EPA. There was a failure to notify local government both on the part of the company and on the part of the fire chief. The fire department and the company are now both under investigations by state OSHA and EPA due to the handling of this event. The career/paid city Fire Chief tendered his resignation. We could have two dead firefighters that were directed by a chief officer who was not on scene. The firefighters were asked to take action which endangered there lives. This was a training issue on the chief's part and the firefighters. The department has learned a valuable lesson. There is no substitute for training.

**Lessons Learned**

This was a training issue on the chief's part and the firefighters. The department has learned a valuable lesson. There is no substitute for training. We must handle HazMat by the book. Do not ask firefighters to perform tasks that they are not trained to do. Report hazmat released as required by law. No command on scene, a complete failure of leadership.

**Report Number:** 07-734  
**Report Date:** 02/19/2007 1238

### **Demographics**

Department type: Volunteer  
Job or rank: Fire Chief  
Department shift: Respond from home  
Age: 25 - 33  
Years of fire service experience: 7 - 10  
Region: FEMA Region III  
Service Area: Rural

### **Event Information**

Event type: Training activities: formal training classes, in-station drills, multi-company drills, etc.

Event date and time: 02/18/2007 1130

Hours into the shift: 0 - 4

Event participation: Involved in the event

Weather at time of event: Clear with Frozen Surfaces

Do you think this will happen again? Yes

What were the contributing factors?

- Decision Making
- Individual Action
- Situational Awareness
- Training Issue
- Procedure

What do you believe is the loss potential?

- Property damage
- Lost time injury

### **Event Description**

A training course on Vehicle Rescue was being conducted through the State Fire Academy and one of our local community colleges. We were about halfway through the days hands-on training program. I was assigned as the incident commander for a scenario of a vehicle rolled over on its side. The task was to gain access through the floor pan into the passenger compartment. The vehicle was properly stabilized and I was assigning tasks to my team members and gathering equipment. I pointed out to two of my less experienced firefighters the location of the fuel lines on the car. I told them to avoid this area as it can pose a potentially dangerous situation. One of the instructors for the course then pointed out to the members of the class that I had identified a hazard and that everyone should be aware of this when working on a vehicle that is resting on its side. We carefully separated the clamps for the fuel lines to move them out of the way. One of the assistant instructors of the course handed a pair of cutting pliers to one of my firefighters. He did not know what to do with the pliers so he just held on to them. The assistant instructor then came over and told my firefighter "I gave you those, use them." He took the cutting pliers back and walked up to the fuel lines. Everyone assumed that he was going to attempt to cut a clamp with the pliers. Instead, he cut right through the fuel line. Fuel began squirting out and exposing everyone to a dangerous situation. I yelled for him to stop and he stated, "Sorry, my fault." Had this been

an actual accident with a hot exhaust system, the vehicle and my firefighters would have been exposed to fire. Before any work was done to the fuel lines, an extinguisher was brought close, just in case. I cannot understand what this instructor was thinking. Nothing was said about the incident and he was not addressed by the other instructors.

### **Lessons Learned**

It is my hope that no negative lessons were learned by my inexperienced firefighters during this incident. I hope that no one thought that this was an appropriate technique to use. It is everyone's responsibility to ensure scene safety. Just because someone has the title of "Instructor" does not mean that they don't make mistakes or bad decisions. It may be that there needs to be a better screening process for instructors. I cannot understand what this instructor was trying to accomplish. I do not know if he thought that this was an acceptable technique or if he just wasn't thinking. The weather was cold but we had not been working all that long and there was no fatigue or stress. This is a difficult situation because it is hard to see a direct cause for the incident to identify steps to correct it.

**Report Number:** 07-944

Report Date: 06/06/2007 0705

### **Demographics**

Department type: Paid Municipal

Job or rank: Assistant Chief

Department shift: 24 hours on - 48 hours off

Age: 34 - 42

Years of fire service experience: 11 - 13

Region: FEMA Region IV

Service Area: Suburban

### **Event Information**

Event type: Fire emergency event: structure fire, vehicle fire, wildland fire, etc.

Event date and time: 11/09/2006 1000

Hours into the shift:

Event participation: Witnessed event but not directly involved in the event

Weather at time of event: Clear and Dry

Do you think this will happen again?

What were the contributing factors?

- Human Error
- Command
- Situational Awareness
- Accountability
- Training Issue

What do you believe is the loss potential?

- Property damage

### **Event Description**

Units were dispatched to a residential structure fire with the reports of victims inside the residence. On arrival, the first in company reported heavy smoke showing. The next radio report was transmitted by the first arriving chief officer (Battalion) who reported heavy fire showing and established command. The engine company stretched one 1.75" line into the structure and initiated an aggressive interior attack. The second in company was ordered to the front of the building and given a RIT assignment; the third company was staged at the hydrant for ten minutes prior to laying a dry line to the scene. Four minutes into the incident a second chief officer arrived on scene, was designated as the incident safety officer, and conducted a 360 of the building. Upon completing the 360, the safety officer reported to the IC that security bars were in place on the B, C, & D sides of the structure. Incident Command acknowledged the report and requested positive pressure ventilation be initiated prior to removing the bars or checking for extension into the voids.

Around this time, a member of the two person interior team had to exit due to an airpack malfunction. The member exited the structure without incident; however, the other member of the interior team remained inside the structure to continue fighting this fire. The company that laid the dry line was not given any additional orders; however, two members of another company were tasked with removing security bars from two C side windows (side of the fire) 14 minutes into this incident. Fortunately the fire was extinguished without incident and the

primary / secondary search was conducted during the overhaul phase of this operation (30 minutes +). While no firefighter was injured during this incident, lack of situational awareness, fire ground command, accountability, and tactical proficiency could have easily lead to a serious injury or Line of Duty Death (LODD).

### **Lessons Learned**

Command, control, and situational awareness were not as proficient as they should be. This is directly attributable to the department's lack of training prior to this event and the training officer's position being vacant for nine months in 2006. Back to basics training has since been implemented. All training should express the importance of firefighter preparedness and increased situational awareness. This will improve firefighter safety.

**Report Number:** 08-081

Report Date: 02/10/2008 1935

### **Demographics**

Department type: Combination, Mostly paid

Job or rank: Battalion Chief / District Chief

Department shift: Straight days (8 hour)

Age: 34 - 42

Years of fire service experience: 17 - 20

Region: FEMA Region III

Service Area: Suburban

### **Event Information**

Event type: Training activities: formal training classes, in-station drills, multi-company drills, etc.

Event date and time: 01/15/2008 1015

Hours into the shift:

Event participation: Told of event, but neither involved nor witnessed event

Weather at time of event: Cloudy and Dry

Do you think this will happen again?

What were the contributing factors?

What do you believe is the loss potential?

### **Event Description**

This report is submitted by the [rank and assignment deleted] who did not witness the event but was notified and reported to the scene of the event immediately after the event took place and while the victim was still on location prior to being transported to the hospital.

On 01/15/2008, Recruit Class [number deleted] was participating in training activities at the Recruit Academy. The recruits were specifically engaged in "combined evolutions". This is a series of actions commonly encountered during fire ground operations (fire attack, search and rescue, laddering, ventilation and rapid intervention). The skills are performed simultaneously under the supervision of instructors. The weather was cloudy and dry. During a series of evolutions, recruits were assigned to a specific piece of apparatus (engine, truck, squad, ambulance) or function (RIT) and led by an instructor serving as the company officer. In the evolution which resulted in the near miss, the recruits were dispatched to a reported residential structure fire. No live fire existed in the building at any point in the evolution. The building was charged with live smoke that was generated from stoves positioned outside the building.

As crews were put to work, a group of recruits were assigned as the Rapid Intervention Team. The crew was a three member team with an instructor supervisor. All three members reported to a ladder cart (simulated ladder truck) to remove ladders for deployment on the fireground. As Recruit #1 began to un-bed a 28 foot two section ladder, Recruit #2 ran over and directed Recruit #1 to assist Recruit #3 with another ladder indicating that he (Recruit #1) would take care of the 28 foot ladder. It should be noted at this point that all of the recruits had previously received extensive hands on training with laddering practices and had received and practiced deployment of a 28 foot ladder as a two-person deployment only. The recruits had been trained and practiced deployment of a 24 foot ladder as a one person deployment.

Department policy specifically requires the use of a minimum of two personnel to deploy a 28 foot ladder. It should also be noted that all of the ladders used in this evolution were marked appropriately with their size.

Recruit #1 did as she was told and proceeded to assist Recruit #3 with deployment of a 24 foot ladder while Recruit #2 completed the process of un-bedding the 28 foot ladder alone and began to carry it to the building using a low shoulder carry. It should be noted at this point that an instructor observed this activity and was aware that Recruit #2 was carrying a 28 foot ladder alone but did not say anything to the recruit.

As the recruit proceeded from Side A to Side D, the other two recruits (#1 and #3) followed with a 24 foot ladder using a low shoulder carry. Both Recruits #1 and #3 were aware that Recruit #2 was carrying the 28 foot ladder alone but did not say anything. Once Recruit #2 arrived on side D, he sized up the building and made a decision to deploy the ladder against the building between several ground obstacles including a set of Bilko doors, a set of stairs leading to the first floor entrance into the structure and a simulated victim (rescue mannequin) that had been placed on the ground to simulate a victim who had jumped from the structure.

Witnesses (two instructors and recruits) report observing Recruit #2 deploy the ladder from a low shoulder carry directly into a vertical position with the heel of the ladder positioned approximately 3 to 5 feet from the building. Recruit #2 was able to successfully get the ladder into a vertical position by himself. However, upon getting the ladder into a vertical position, the heel of the ladder was positioned in such a way that Recruit #2 had to stand in an awkward position over the simulated victim. In an effort to move to the other side of the ladder to get away from the victim and still extend the ladder, Recruit #2 took several steps and attempting to rotate the ladder on its heels. At this point, the Recruit lost control of the ladder. Recruit #2 was wearing full PPE including the facepiece of his SCBA and although the recruit attempted to verbally warn others of the impending fall of the ladder, his voice was muffled by the facepiece.

The victim in this case (Recruit #4) was preparing to enter the occupancy via the Bilko doors located on Side D of the structure with two other recruits to conduct search and rescue operations in conjunction with the deployment of hose line by another crew. Recruit #4 had his back positioned to the location of the ladder evolution and as a result never saw the ladder falling or heard the yells of surrounding recruits and instructors as they observed the ladder falling.

The ladder fell from a vertical position (not extended) and struck Recruit #4 beam first at the junction of the recruit's right neck and shoulder area after glancing off of his helmet. The recruit was immediately driven to the ground. The recruit was wearing full PPE including face piece, helmet, nomex hood, chin strap, structural firefighting coat and pants and boots. The ladder continued in a downward direction until it came to rest on the ground.

The evolution was immediately terminated. Care was initiated by on-scene instructors (including FF/Paramedics) and an ALS unit was summoned to the scene. The Chief of Training and the Safety Division also reported directly to the scene. An IMS was established with the Operations Captain took command of Academy operations. The Safety Division took

command of an investigation and the Chief of Training, served as the Family Liaison and the point-of-contact for information dissemination to the Command Staff.

Recruit #4 was transported to a Level 1 Trauma Center for evaluation where he remained for approximately 16 hours before being discharged with a diagnosis of a neck strain. The recruit remained on light duty for approximately 10 days before returning to full duty and subsequently graduated from the Recruit Academy with no known long term effects.

### **Lessons Learned**

In this event, we have identified through investigation and interviews that there were no less than five opportunities to have interfered with the chain of events that led to the injury before it occurred. After Recruit #1 began to un-bed the ladder, she was re-directed to assist recruit #3 with the other ladder. She could have communicated to Recruit #2 that the ladder was a 28 foot ladder and required two people to deploy. Recruit #2 could have checked the ladder prior to removing it from the ladder bed to verify its length. Once removed from the ladder bed, Recruit #2 was observed by three different instructors who each independently reported that they were aware that Recruit #2 was carrying a 28 foot ladder by himself and did not say anything to the recruit to stop him from attempting to deploy the ladder.

The ability of any member of a department to stop an unsafe act must receive greater attention and should be verbally communicated at the beginning of every training evolution. In addition, it should be expected that humans (recruits and incumbents) are going to make mistakes. The goal of any department should be to put into place those safety nets that will allow a series of seemingly disconnected events from lining up in just the correct manner to result in a tragedy.

Clearly, in this case a tragedy was avoided but not because of design but sheer luck. Despite having all of his PPE on properly, Recruit #4 (the victim) could have suffered a career ending injury or even life-ending injury. It is important to note that our department has a policy requiring all personnel operating within 75 feet of the hazard zone be in full PPE. This event underscores the importance of that policy and its positive effect on personal safety. Had Recruit #4 not been wearing his full PPE the outcome would likely have been much different. If the recruit had been on the ground donning his facepiece and had been struck the outcome would likely have been much different.

A safety officer was assigned during the event (staffed by an instructor) but the officer was not on the same side of the building of the incident when it occurred. Safety officers must position themselves where the highest risk activities are taking place. In addition, all personnel must understand their specific responsibility to function in a safety role while performing other duties.

It is critically important to note that recruit firefighters in training have the desire to perform but lack the experience to fully understand the impact of their actions. Their decision making skills, situational awareness and ability to question a decision are muted. As such, instructors must take an extremely active and hands on role in safeguarding recruits from themselves.

To prevent a recurrence:

1. Recruits must receive proper training in the safe handling of ladders.
2. Recruits must receive proper training in their role as safety officers.

3. Instructors must understand all aspects of a given scenario prior to the start of the scenario and interfere with an unsafe act the moment it occurs.
4. Instructors must never assume that "someone else" is going to correct an observed problem occurring in an area that they may not be immediately responsible for.
5. Training officers must constantly communicate the importance of safety. This includes breaking down any barriers to getting personnel of any rank to speak out when they observe an unsafe act.
6. The results of our internal investigation will be shared with all personnel in our department to remind them of the importance of safety and the potential for a critical event to occur quickly and without warning.

It is my belief that this event could occur again in our department.

**Report Number:** 09-029  
**Report Date:** 01/14/2009 0913

### **Demographics**

Department type: Combination, Mostly volunteer  
Job or rank: Driver / Engineer  
Department shift: 48 hours on - 96 hours off  
Age: 25 - 33  
Years of fire service experience: 0 - 3  
Region: FEMA Region X  
Service Area: Suburban

### **Event Information**

Event type: Training activities: formal training classes, in-station drills, multi-company drills, etc.

Event date and time: 07/01/2008 1000

Hours into the shift:

Event participation: Witnessed event but not directly involved in the event

Weather at time of event: Clear with Wet Surfaces

Do you think this will happen again?

What were the contributing factors?

- Equipment
- Human Error

What do you believe is the loss potential?

- Life threatening injury
- Lost time injury

### **Event Description**

During a "Burn to Learn," I witnessed our training officer in the front yard of the house on his knees switching out an SCBA bottle of an air pack. As he was inserting the full bottle into the harness, the knob to open the bottle rubbed on the back plate enough to open the valve, thus pressurizing the bottle in the opposite direction. The training officer jumped on top of the bottle to stop it from moving at or possibly hurting someone. The training officer received injuries to his hand. These were new SCBA to the department and had not been used much prior to the burn.

### **Lessons Learned**

We learned to take extra care when replacing the bottle. This issue, specifically pertaining to the equipment, is non-resolvable. Extra training on this specific issue needs to be conducted on how to avoid repeating this action including what to do if you have a loose, pressurized bottle. Possibly producing an SOP for changing out bottles and where (i.e., hot zones, drill grounds, etc.) Also, consider looking at different models of SCBA and asking the manufacturer about previous incidents and reports with possible solutions from them.