

## **Instructions for *Firefighter EMS Injury / Acute Illness Investigation & Review Form***

This guide is offered to assist fire officers with fact-finding and root cause analysis of firefighter / EMT injuries and acute illnesses. It is not intended for injuries as a result of motor vehicle crashes.

Name of Firefighter: insert the name of the injured employee

Date of report: insert the date this report was started

Location of incident: insert the address, intersection, training ground, etc. where the employee was working when the injury occurred.

Date of injury: insert the date when the injury occurred

Type of activity: the most common activities are provided as a checklist. Check the most appropriate box. If none of the provided activities accurately reflect the activity being performed, check OTHER and add a 1 – 2 word description.

Time of injury & Shift start time: insert the time of injury.

If during emergency operation, type of incident: If the injury / illness occurred while responding to or operating during an emergency response, provide the type of response. This will often correlate to the dispatch description. Typical answers include dwelling fire, structure fire, vehicle fire, hazardous material response, carbon monoxide investigation, automatic alarm, extrication, difficulty breathing, seizure, etc.

If during training, topic of drill: If the injury / illness occurred during a drill, provide the topic of the drill. Typical responses include launching lifeboat in surf, vehicle extrication, patient packaging, patient lifting, etc.

### **Background on injured firefighter**

Age and sex: insert the employee's age (estimate if not known) and check whether male or female.

Height & weight: estimate if not known.

Date of last physical exam: insert the date of the injured employee's last medical examination by a physician or other healthcare provider. If unknown, write 'unknown'. Do not leave blank.

Years of experience: insert total number of years (or months or days) of experience as a lifeguard, EMT, or other job description. Include both time with this organization and as a similar job description with previous organizations. Provide best estimate.

Experience doing task: estimate how often the employee has performed this specific task. Consider the specific task. Answers may be given in time frames or number of times the employee performed the task. Answers may also be descriptive such daily, if the task is performed daily such as shift vehicle check.

Last training on task: insert the date, or approximate date, when the department last held training on the specific task which was being performed by the employee when injured or fell ill.

## **Injury Information**

Part of body injured: many body parts are provided as a checklist. Check the most appropriate box. If none of the given body parts accurately describe the injury, check OTHER and add a short description.

Nature of injury: many types of injury are provided as a checklist. Check the most appropriate box. If none of the natures of injury accurately reflect the injury, check OTHER and add a short description.

Task being performed at time of injury: Be as specific and detailed as practical. For example, instead of writing 'rescue', include a description of which phase of rescue..

Task(s) performed prior to injury: list tasks the injured employee performed up to an hour before the task being performed at the time of injury. For example, was this the fifth rescue in the past hour?

Describe pace of task being performed. Was perceived pace proper: Was the task being performed at the time of injury / illness in a rushed, routine, deliberate, or other such manner? Consider if the pace the injured employee was working at matched the actual pace that was needed. Why or why not?

Was a Safety Officer specifically identified? Was someone specifically assigned the task of Safety Officer to monitor the actions of employees at an emergency scene or drill? Select NO if a Safety Officer would not be necessary, such as an injury that occurred during routine house duties.

Was a rehabilitation area specifically established: Was a procedure and location set-up to evaluate, re-hydrate, re-warm / cool down, and provide medical care if needed for firefighters working at an emergency scene or drill? Select NO if a Rehab area would not be necessary.

How long from start of incident / drill to the time of injury: if the injury / illness occurred during an emergency response or a drill, approximate the time from the start of the incident or drill to the time of the injury. You may also use this box for physical exercise. How long was the employee exercising before the injury occurred? Answer will typically be in minutes.

## **Environmental conditions at time of injury**

Weather: typical answers may include sunny, overcast, rain, snow, showers, clear, hurricane conditions, etc.

Temperature: give air temperature when injury / illness occurred

Precipitation: typical answers may include showers, heavy rain, snow, blizzard, sleet, etc.

Humidity: give actual relative humidity if known. If not, describe humidity, ie- very humid, humidity not a factor, etc.

Wind speed: give actual wind speed. Give direction if it may be a factor, Give description, such as gusting, if it may be a factor.

Wind chill / heat index: give actual, approximate or descriptive account of what it felt like

Exterior light condition: This may include sunny, dark, street lights with many shadows, flood lights, etc.

Interior light conditions: If the injury occurred inside a structure, describe the light conditions inside the structure. Include the difference between exterior light conditions and interior light conditions if it may be a factor in the injury / illness.

Comments: environmental conditions often are a factor in an injury / illness. Use this space to add other observations about the work conditions (noisy, crowded) that may be a factor.

**Was the injury lifting / carrying related?**

Check YES or NO. Complete this section if the injury was musculoskeletal (sprains or strains), especially if a physical task was being performed at the time of injury / illness. Musculoskeletal injuries are a common injury to firefighters and EMTs. A comprehensive examination of body position and mechanics is necessary for an effective injury analysis.

Weight of object: give actual, approximate or descriptive account of the weight of the object that was lifted, carried, or being used (such as a tool).

How many times was the object lifted? This may be a number such as 2 times for an object was lowered for use and then lifted back to position such a ventilation fan. You may also want to consider a broader scope and be a number such as 20 if 10 SCBA were lifted from apparatus and then replaced.

The answer may also be a time frame such as 5 minutes that a firefighter was using a pike pole to pull a ceiling, or the time it took to carry a patient down a flight of stairs.

How fast was the object lifted: provide a descriptive account of how fast the object was lifted or used. Typical answers may include rapidly, slowly, repeated 5 times in less than minute, etc.

The object was lifted from what height to what height: provide actual or approximate heights of where the object was lifted from and to. Answers will typically be given in feet and inches.

Did the lift / carry require twisting: Did the employee have to twist at the waist or shoulders to maneuver the object from its start point to its final placement? There is space if a description, such as severe or jerky, of the twisting motion might be helpful in the injury analysis.

Were the handholds of the object effective: Consider how solidly was the firefighter / EMT able to grasp and hold the object. Were there handles? Would gloves help or hinder? Provide more than a YES / NO answer if this may have been a factor.

Was the object's weight evenly distributed? Consider front to back, side to side, top to bottom.

Describe the object's shape: give actual (2' x 2' box), approximate or descriptive account (irregular, rectangular, 8 foot pike pole) of the shape of the object that was lifted, carried, or being used (such as a tool).

How far was the object carried: Enter the distance or time the object was carried. Consider conditions such as stairs, rough terrain, poor footing, etc. and add to comments box.

Describe awkward body positions: Was the firefighter / EMT in an awkward body position, such as kneeling, stooped over, working in tight quarters, etc.

Comments: include any observations that complicated the body positioning, body mechanics or amount of work needed to lift or carry an object or use a tool.

**Was this a slip / trip / fall injury?**

Check YES or NO. Complete this section if the injury resulted from the employee slipping or tripping and falling. For slip injuries there are two factors that must be investigated; the footwear and the working / walking surface.

What footwear was worn: Describe the footwear worn at time of injury such as turnout boot, sneakers, 8" work boot, etc.

Condition of soles & treads: Were the soles & treads of the shoes in good, fair, or worn condition.

Comments: consider other shoe-related factors that may have impacted the injury, such as material of the upper or soles of the shoes, the height of the uppers, whether the laces were tied, etc.

What was working surface material; Describe the working surface such as asphalt, concrete, gravel, mud, loose carpet, etc.

What was condition of working surface: Describe the condition of the surface described above such as icy, dry, wet, slanted front to back, slanted side to side, etc.

What was the height of working surface: If the slip or trip led to a fall, describe the height the firefighter / EMT fell.

Object tripped on: identify or describe the object that was tripped over such as charged hose line, hydraulic hoseline, electric cord, box in hallway, loose stair tread, etc.

Were handholds available? Used: handholds include grab bars on apparatus as getting on or off, railings on stairs, wall or side of truck to steady the worker, etc.

Comments: consider other factors that may have impacted the injury such as employee was rushing when they slipped or tripped, visibility of the object / surface was impacted by glare or obstructed by the employee carrying a large object, etc.

How long was the condition present before injury: Did the condition just develop or occur or was it present for some period of time before the injury.

Was there an opportunity to change the condition: If the object or condition that led to the slip or trip was there for any period of time, were there any opportunities to see the hazard and correct it.

### **Was a tool / equipment involved in injury?**

Check YES or NO. Complete this section if the injury resulted from the employee using a tool or a piece of equipment.

Name of tool / equip: Identify and add any description that may be relevant to investigation such as 8' pike pole, Hurst hydraulic spreaders,

Condition of tool / equip: Inspect the tool or equipment being used and note any deficiencies.

Were guards and warning labels in place: check appropriate box and describe any missing warning or instructional labels and guards or safety equipment.

Comment on tool selection / use: consider factors on how and why the firefighter / EMT chose the tool for the task being completed. Was it the best tool for the job? Were other tools available and considered? Was the tool or piece of equipment used properly and as intended?

### **Injury / illness analysis**

What was the root cause of this injury / illness: Consider all the facts collected above. What was the most basic reason for this injury? One strategy to get to the root cause is to ask 'why' a condition existed or

an action was taken. Continue to ask 'why' for each preceding answer until you can't ask why any more. This moves the cause from an individual and towards a process that can be addressed.

For example: if a worker wasn't wearing gloves, "Why wasn't the firefighter wearing gloves?" The answer can be size of glove, material of glove, training issues, etc. All with a different result

What other factors contributed to the injury: Once the root cause is identified, there were most likely other factors that also had to occur that led to the injury / illness. The root cause often existed at other times that didn't result in an injury. So what else happened this time that led to the injury? Check as many factors as appropriate. Use the line below each factor to give specific details on the deficiency.

What was learned from investigating the circumstances of injury / illness: Consider and evaluate the root cause and contributing factors that came together and led to the injury and illness. What can be done to break the chain of events from coming together next time.

Your evaluation may conclude that all hazards have been properly identified and sufficient safeguards and training is in place. That would also be a valuable lesson that was learned.

Who will do what by when to share what was learned with the firefighter / EMT and the department: The reason injury investigations and analysis are conducted is to improve both the employee and the department as a whole. Consider what was learned from your investigation. Does the employee need retraining? Counseling on the decision made? Possibly some discipline if a policy / procedure was violated?

What can the department do to incorporate what was learned into their operations? Examples include changing a policy or procedure, changing a training lesson plan to include what was learned, giving a reminder at a department meeting of a hazard, or counseling a supervisor. If the investigation concluded policies, procedures and training are sufficient, an action plan might include letting all workers know all the factors investigated and found to be sufficient. This sends a positive message that injuries are looked seriously for some improvement to their safety.

Make the plan concrete by assigning the action to an individual and tracking its progress.