



Honeywell

First Responder Products



This assessment is designed to help you identify situations, policies and procedures within your fire service organization that may lead to a firefighter injury or fatality, and to recommend low and no-cost solutions to reduce or eliminate those risk factors.

Ineffective Decisions

Firefighters and fire officers risk their own lives and those of their team members when they fail to make well-informed, risk-appropriate decisions. *Ineffective Decision Making* can be the result of decisions made by individuals at any level of the organization. Poor decisions with injurious consequences can be made during virtually any scenario: while responding to a call, during operations, while training, or even when participating in routine activities at the station. An individual's inherent ability to make personal risk-management decisions at any particular point in time is directly impacted by variables which include training and experience, as well as department leadership. This assessment will look at all of these factors, and will take into account the safety culture of the department; a culture which may condone or even encourage risky tactical maneuvers will increase the likelihood that a firefighter may decide to attempt an action that he is not trained to undertake, or does not have the appropriate equipment or personnel support to accomplish successfully.

Accidental

Medium Risk

Your department's risk increased because you do not provide a fire safety orientation to newly arriving or detailed personnel.

- [Stepping Up: Orientation for the New Firefighter](#)
- [NFPA 1500 Standard on Fire Department Occupational Safety and Health Program \(Cpt 9: Facility Safety\)](#)

Your department's risk increased because you do not have MSDS data sheets readily available for inspection in fire stations or other department facilities.

- [OSHA 3111 Hazard Communication Guidelines for Compliance](#)

Your department's risk increased because you do not offer a training program for non-emergency duties.

- [Example: Alternate Duty Program SOP \(Phoenix Regional\)](#)

Your department's risk increased because you do not have an SOP for locking out machinery.

- [OSHA 29 CFR 1910.147 The Control of Hazardous Energy \(lockout/tagout\)](#)

Your department's risk increased because you do not train firefighters on safety practices for cutting down trees.

- [National Wildfire Coordinating Group Tree Felling Toolbox](#)

Decision Making

Low Risk

- No resources available based upon assessment responses

Human Error

Low Risk

Your department's risk increased because you do not train personnel on unique hazards that may be encountered when using unconventional means of transportation.

- [NIOSH Report on Junior Fire Fighter Killed While Responding to Fire Alarm on His Bicycle - Pennsylvania](#)

Situational Awareness

Low Risk

- No resources available based upon assessment responses

Structural Failure

Low Risk

- No resources available based upon assessment responses

Ineffective Policies & Procedures

Ineffective Policies and Procedures significantly increase the risk of death or injury to firefighters on the fireground, during training, and even while performing routine activities in the firehouse. Ideally, all of a fire department or agency's activities are guided by comprehensive SOPs, which are consistently enforced by organizational leadership. When the entire department is operating from the same playbook, members understand organizational expectations and are working together toward a common goal. When SOPs go the extra step and articulate firefighter safety as an organizational value, it sends a strong and unified message to its members that each of their lives is valued. Questions in this portion of the VAP survey will assess 1) do adequate SOPs exist within the organization? and 2) Do the chief and other officers actively and consistently enforce these policies?

Civilian Error

Low Risk

Your department's risk increased because you do not have a SOP for interacting with civilian bystanders during an incident.

- [POLICIES AND PROCEDURES FOR FIRE SERVICE OPERATIONS DURING CIVIL DISTURBANCES](#)
- [Curbside Manner: Stress First Aid for the Street](#)

Communication

Low Risk

Your department's risk increased because you do not have a SOP for communication with other organizations (e.g., law enforcement, EMS, hospitals, etc.) during a multi-disciplinary incident.

- [Your Community's Active-Shooter Response: Are You Prepared?](#)
- [Incident Communications Plan ICS 205](#)

Your department's risk increased because you do not have a SOP for issuing an evacuation order on the incident scene

- [3.2.1.3 Evacuation \(FireFighters\)](#)
- [Example: Jefferson County \(KY\) SOP](#)
- [Example: Renton \(WA\) Fire and Emergency Services Department Standard Operating Procedure Radio Communications](#)

Your department's risk increased because you do not have a system for emergency notification to rapidly warn all personnel who might be in danger if an imminent hazard is identified or a change in strategy is made.

- [Phoenix \(AZ\) Regional Standard Operating Procedures--Communications](#)

Your department's risk increased because you do not utilize SCBA-mounted communications equipment.

- [NFPA 1221: Standard for the Installation, Maintenance, and Use of Emergency Services Communications Systems](#)
- [USFA/IAFF Guide to Radio Communications for the Fire Service](#)

Crew Size/Staffing

Medium Risk

Your department's risk increased because you do not follow the NFPA 1710 Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments or the NFPA 1720 Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Volunteer Fire Departments.

- [NFPA 1710 Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments](#)

- NFPA 1720 Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations and Special Operations to the Public by Volunteer Fire Departments

Your department's risk increased because your engine and truck companies do not operate with a minimum of four assigned personnel at all times.

- NIST Report on Residential Fireground Field Experiments

Your department's risk increased because your engine and truck companies do not operate with a minimum of five assigned personnel in areas with special hazards, high-hazard occupancies, high incident frequencies, or geographical restrictions.

- NIST Report on High-Rise Fireground Field Experiments

Your department's risk increased because you do not have a SOP for crew staffing minimums on different types of incidents.

- 3.3.2.1 Delivery Model
- Establishing a Logical Basis for Minimum Staffing
- Four_Person Staffing Facts
- Example: Montgomery County (MD) Fire and Rescue Service Policies and Procedures

Your department's risk increased because you do not require at least six people (two-in/two-out plus the incident commander and pump operator) onscene before interior operations can start.

- NFPA 1710:Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments
- Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments

Your department's risk increased because you do not have adequate staffing to allow a minimum of two firefighters to perform an initial search during structure fires.

- OSHA Regulation 1910.134

Hazardous Substances

Low Risk

Your department's risk increased because EMS units are not dispatched to all hazardous material incidents.

- IAFC 2005 Hazardous Materials Round Table Final Report
- NFPA 473: Standard on Competencies for EMS Personnel Responding to Hazardous Materials/Weapons of Mass Destruction Incidents

Your department's risk increased because you do not require all appropriate resources onscene before committing personnel to incidents involving unknown/unidentified hazardous materials.

- IAFC 2005 Hazardous Materials Round Table Final Report
- Phoenix (AZ) Regional Standard Operating Procedures

Your department's risk increased because you do not maintain an explosive ordnance disposal (EOD) team ("bomb squad").

- Example: Prince George's County (MD) Fire/EMS Department General Orders Chapter 09-Special Operations

Your department's risk increased because, at explosives incidents, your department does not require radio silence until the all-clear is given by the incident commander (IC).

- Example: Marietta (GA) Fire & Emergency Services AUC 305

Your department's risk increased because the emergency vehicles in your department have components that restrict their top speed.

- [NFPA 1901: Standard for Automotive Fire Apparatus](#)

Your department's risk increased because the emergency vehicles in your department equipped with back-up cameras.

- [Article: Know this before buying fire truck rearview cameras \(FireRescue.com, April 24, 2014\)](#)

Your department's risk increased because the emergency vehicles in your department equipped with "black box" event recorders.

- [NFPA 1901 Standard for Automotive Fire Apparatus](#)
- [Event Data Recorders--The "Black Box" for Safet Response \(Firehouse, 2007\)](#)
- [VDR's: Underutilized Tools in Evey New Fire Apparatus](#)

Your department's risk increased because you do not use traffic signal preemption equipment on emergency vehicles.

- [Federal Highway Administration's Traffic Signal Preemption for Emergency Vehicles Traffic Signal Preemption for Emergency Vehicles](#)

Your department's risk increased because you do not require jack stands when lifting emergency vehicles.

- [NIOSH Fire Fighter Fatality Investigation and Prevention Program: Career Lieutenant Dies from Injuries Received after Vehicle Undergoing Maintenance Crushes Him \(2011\)](#)

Your department's risk increased because you do not require emergency vehicles to stop before safely passing through railroad crossings.

- [Guide to IAFC Model Policies and Procedures for Emergency Vehicle Safety](#)

Your department's risk increased because you do not have a policy of reviewing emergency vehicle operators' state licenses on an annual basis.

- [IAFC Guide to Model Policies and Procedures for Emergency Vehicle Safety](#)

Your department's risk increased because you do not have a SOP for safely towing or trailering emergency vehicles.

- [ResponderSafety.com](#)

Your department's risk increased because your department's emergency vehicles do not have automatic air bags.

- [Article: Protection Systems Mature Inside Apparatus Cabs \(Fire Apparatus Magazine, October 2, 2013\)](#)

Your department's risk increased because your department's emergency vehicles are not designed with a custom fire apparatus cab.

- [Article: Deliberating Custom Versus Commercial Chassis \(Fire Apparatus Magazine, April 1, 2010\)](#)

Your department's risk increased because your department's emergency vehicles are not equipped with electronic stability control technology.

- [NFPA 1901: Standard for Automotive Fire Apparatus](#)

Your department's risk increased because you do not have a SOP for the safe fueling of emergency vehicles.

- [Example: Safe Fueling SOP, Alton \(IL\) Fire Department](#)

Your department's risk increased because you do not operate any "home-built" emergency vehicles.

- CDC/NIOSH (2011) Preventing Death and Injuries of Fire Fighters Operating Modified Excess/Surplus Vehicles

Your department's risk increased because you do not operate any military surplus vehicles.

- CDC/NIOSH (2011) Preventing Death and Injuries of Fire Fighters Operating Modified Excess/Surplus Vehicles

Your department's risk increased because you do not operate any re-purposed civilian vehicles.

- CDC/NIOSH (2011) Preventing Death and Injuries of Fire Fighters Operating Modified Excess/Surplus Vehicles

RIT/RIC

Low Risk

Your department's risk increased because you do not require a minimum of 4 firefighters on a RIC.

- NFPA 1407: Standard for Training Fire Service Rapid Intervention Crews

Your department's risk increased because you do not deploy an expanded RIC (task force), including a dedicated chief officer and EMS transport unit, on complicated incidents or in large buildings.

- NFPA 1407: Standard for Training Fire Service Rapid Intervention Crews

SOPs/SOGs

Medium Risk

Your department's risk increased because you do not provide copies of all SOPs/SOGs in fire stations and other department facilities.

- USFA Developing Effective Standard Operating Procedures for Fire and EMS Departments, FA-197 (1999)

Your department's risk increased because you do not provide all personnel with training on new and revised SOPs/SOGs.

- USFA Developing Effective Standard Operating Procedures for Fire and EMS Departments, FA-197 (1999)

Ineffective Leadership

It is often said that an organization is only as effective as its leadership, and this is particularly true in the fire service. *Ineffective Leadership* at any of the multiple levels of command—both those within the organizational hierarchy and that of the ICS structure during incident response—has profound effects upon the safety and well-being of the individual firefighter. This assessment will examine the quality of all levels of leadership within your department or agency, including the qualifications of all levels of unit and department leadership, their focus and vision on department goals or missions, and communication styles both within the command structure and with firefighters. Particular attention is paid to leaders at the crew or company level. These leaders are usually accountable for the day-to-day activities of their teams, ensuring that SOPs are complied with, firefighters are trained and equipment is properly maintained. They serve as teacher, role model and mentor for firefighters, and pass on the department's culture—both its positive and negative aspects—to the next generation.

Command

Low Risk

Your department's risk increased because your Incident Commanders are not required to discontinue interior operations once roof supporting members are exposed to fire.

- [NFPA 1561 Standard on Emergency Services Incident Management System and Command Safety](#)

Your department's risk increased because you do not use a liaison officer or "fire coordinator" to facilitate interaction between mutual-aid departments.

- [NFPA 1561: Standard on Emergency Services Incident Management System and Command Safety \(Chapter 5.9.5\)](#)

Incident Safety Officer

Low Risk

- No resources available based upon assessment responses

Teamwork

Low Risk

Your department's risk increased because you do not provide Crew Resource Management (CRM) training for all firefighters.

- [IAFC Crew Resource Management manual](#)
- [IAFC Crew Resource Management presentation](#)

Lack of Personal Responsibility

Ultimately, firefighters are accountable for their own safety. A lack of personal responsibility can dramatically impact the quality and safety of a firefighter's performance, and can also put the life of other team members at risk. A firefighter or officer demonstrates a lack of personal responsibility when they fail to take into consideration their own safety during participation in any fire organization activity. *Lack of Personal Responsibility* is usually evident where firefighter fatality is the result of an apparatus or POV accident, and speeding, failing to use seatbelts and a lack of compliance with traffic signals or laws are frequent examples. Unfortunately in the case of vehicular accidents, lack of personal responsibility can elevate the level of injury from survivable to fatal. It also often increases the likelihood of collateral death and/or injuries when others on board the apparatus, in other vehicles, and even pedestrians are involved. Lack of personal responsibility also manifests itself in health and wellness issues. Heart attacks and strokes are consistently the leading cause of line-of-duty death for firefighters, and *every firefighter is responsible for their own physical health*.

Accountability

Low Risk

Your department's risk increased because you do not have a safety committee that includes personnel from the line organization.

- [NFPA 1500 Standard on Fire Department Occupational Safety and Health Program](#)
- [Oregon OSHA \(2011\) Quick Guide to Safety Committees and Safety Meetings](#)

Fitness & Wellness

Medium Risk

Your department's risk increased because you do not require firefighters to receive an annual medical evaluation.

- [Addressing the Need for Annual Occupational Medical Exams and Fitness Evaluations for all Firefighters](#)

Your department's risk increased because you do not set physical fitness goals for firefighters.

- [Article: Goals and How to Set Them \(Fire Engineering, December 13 2010\)](#)

Your department's risk increased because you do not provide access to alternative physical fitness training facilities.

- [Example: Mesa Fire Department Values, Organization and Policies \(104.03 Wellness Program\)](#)

Your department's risk increased because your department has not used the National Volunteer Fire Council (NVFC) Fired Up For Fitness Challenge.

- [NVFC Fired Up for Fitness Challenge](#)

Your department's risk increased because you do not require that personnel complete a depression screen during their periodic medical physical evaluation.

- [SAMSA-HRSA Center for Integrated Health Solutions](#)
- [National Fallen Firefighters Foundation Firefighter Life Safety Initiative 13 Training](#)

Horseplay

Low Risk

Your department's risk increased because you do not have a culture of hazing or horseplay.

- [Out wit the Old/In with the New \(2014\)](#)

Motor Vehicle

Low Risk

Your department's risk increased because you do not allow personnel to respond to incidents in privately owned

Your department's risk increased because you do not allow personnel to respond to incidents in privately owned vehicles (POVs).

- National Volunteer Fire Council (2009) Emergency Vehicle Safe Operations for Volunteer & Small Combination Emergency Service Organizations

Lack of Preparation

By their very nature, fire departments must be prepared to face a virtually limitless number of response situations. This assessment will examine levels of preparedness at both the organizational level and individual levels. Planning is critical to safe operations, and lack of comprehensive SOPs, or the failure to follow or enforce them, is frequently a contributory factor in firefighter fatalities. In addition, firefighters are sometimes killed or injured when they attempt to conduct a level of operations for which the individual or the organization is not prepared. *Lack of Preparedness* is also often symptomatic of poor decision making, because no firefighter should ever attempt to do something that they are unprepared or ill-equipped to undertake. However, many LODDs and injuries that occur on the fireground are the direct results of situations in which a firefighter attempts a maneuver, despite the lack of proper personal protective equipment or tools. Alternately, individuals may also attempt maneuvers that they are either untrained or inadequately trained to undertake.

Act of Violence

Low Risk

- No resources available based upon assessment responses

Equipment

Medium Risk

Your department's risk increased because you do not allow personnel to modify their issued PPE.

- [NFPA 1500 Standard on Occupational Safety and Health Program \(Chapter 7\)](#)

Your department's risk increased because you do not have a SOP regarding the use of power tools. (Including saws, hydraulic rescue tools, fans, blowers, etc.)

- [NFPA 1936 Standard on Powered Rescue Tools](#)

Your department's risk increased because you do not have a SOP for machine guarding.

- [OSHA Machine Guarding](#)

Your department's risk increased because you do not have a SOP for ground ladder safety.

- [NFPA 1932 Standard on Use, Maintenance, and Service Testing of In-Service Fire Department Ground Ladders](#)

Your department's risk increased because you do not use exit locators such as high-intensity floodlights, flashing strobe lights, or guidelines to help lost or disoriented firefighters find an exit.

- [IAFF Fireground Survival](#)

Your department's risk increased because you do not have a SOP for the safe operation of ground-mounted monitors.

- [Fresno Fire Department Training & Equipment Manual: Hose Practices, 301.7 Supplying Master Streams](#)

Your department's risk increased because you do not use any "home-built" equipment.

- [ISO 9001](#)

Your department's risk increased because powered cots and stair chairs are not provided to facilitate safe patient movement when your department provides ambulance transport.

- [EFO Paper: Back Injury Reduction in the Fire Department of New York \(Emergency Medical Service\)](#)
- [How powered cots and stair chairs can reduce EMS back injuries \(2014\)](#)

Fatigue

Medium Risk

Your department's risk increased because you do not set a maximum number of hours that personnel may remain on-

duty.

- [International Association of Fire Chiefs \(2007\) The Effects of Sleep Deprivation on Fire Fighters and EMS Responders](#)

Your department's risk increased because you do not have a process for the rehabilitation ("rehab") of firefighters during an incident.

- [NFPA 1584 Standard on the Rehabilitation Process for Members During Emergency Operations and Training Exercises](#)
- [USFA \(2008\) Emergency Incident Rehabilitation, FA-314](#)
- [University of Pittsburgh Model Rehab SOP](#)

Planning

Medium Risk

Your department's risk increased because your pre-incident planning does not cover all high-hazard occupancies in your response area.

- [NFPA 1620 Standard for Pre-Incident Planning \(2010\)](#)

Your department's risk increased because your pre-incident plans are not updated annually, or more frequently if notable changes occur in an included occupancy.

- [NFPA 1620: Standard for Pre-Incident Planning](#)

Your department's risk increased because you do not have pre-incident plans immediately accessible to all responding units.

- [NFPA 1620: Standard for Pre-Incident Planning](#)

Your department's risk increased because your pre-incident plans do not describe unit and supervisory responsibilities at the scene of an event.

- [Course: IS-100 - Incident Command System \(ICS\) 100 Training](#)

Your department's risk increased because your pre-incident plans do not identify required response resources.

- [Lesson 2: ICS Features and Principles](#)

Your department's risk increased because you do not regularly practice your pre-incident plans.

- [NFPA 1620 Standard for Pre-Incident Planning \(2010\)](#)
- [Preincident Planning and Firefighter Safety: A success story](#)
- [Fire Service Pre-Incident Planning "Before We Respond" - Bloomfield \(MI\) Fire Department](#)

Your department's risk increased because you do not 's, or mutual-aid, hazmat team carry pre-incident plans for occupancies with identified hazardous material risks.

- [Pre-Emergency Planning Helps Save Lives](#)

Training

Low Risk

- No resources available based upon assessment responses

Extraordinary Unpredictable Events

Extraordinary and Unpredictable Events generally encompass situations which are what the legal profession terms “Acts of God.” These include:

- Events that are outside of human control
- Natural disasters and weather events
- Unavoidable catastrophes
- Acts of terrorism
- Premeditated and/or spontaneous violence, and/or
- Events against which defense may be impossible, impracticable, or would result in an insurmountable delay.

Extraordinary events are not specific to any one age group, incident type, or department type. In many of cases, they are the result of criminal intent—arson, homicide or manslaughter. Some of these situations are unavoidable, and no amount of training, equipment, personnel or effort could have improved the outcome. However, in many cases instituting appropriate SOPs to guide just such a response and training for potential scenarios can minimize the unfortunate impacts of an extraordinary and unpredictable event.

Act of Nature

Low Risk

Your department's risk increased because you do not modify or suspend emergency responses during extreme weather conditions.

- [State of Connecticut Model Procedures for Response of Emergency Vehicles During Hurricanes and Tropical Storms](#)

Unpredictable Event

High Risk

Your department's risk increased because you do not encourage personnel to conduct regular area familiarization drills.

- [Tips for Learning your Way Around Your Response Area](#)