Payson Fire Department
Standard Operating Procedures

Section: Safety, Health and Wellness **Subject:** Organizational Risk Management Plan	**SOP # 2.5.1** **Date: 2/16** **Revision Hx: 8/20**

1. PURPOSE

A. The purpose of this policy is to develop a culture of safety and risk management and increase the awareness of safety in daily operations.

B. To establish a risk profile that separates our approach to risk management during emergency operations and non-emergency functions. (emergency scene vs. station life)

C. The Payson Fire Department (PFD) employs a risk management plan as a component of a comprehensive Safety and Health and Wellness program with the following objectives:

i. And to develop a Culture of Safety and Risk Management

ii. To provide a safe working environment for the PFD members by eliminating or reducing the risk and occupational exposure to PFD members during emergency and non-emergency operations and continue to meet the PFD Mission.

2. DEFINITIONS

A. Health Safety Officer (HSO) - Person appointed by the Fire Chief in compliance with NFPA 1500 and 1521 to manage the Health and Wellness Program in compliance with NFPA, OSHA, NIOSH, CDC and other regulating agencies and professional standards.

B. Risk - Is the product of hazard and exposure. Thus, risk can be reduced by controlling or eliminating the hazard or by reducing workers' exposure to hazards.

C. Risk Management - The is the identification, evaluation, and prioritization of risks (defined in ISO 31000 as *the effect of uncertainty on objectives*) followed by coordinated and economical application of resources to minimize, monitor, and control the probability or impact of unfortunate events or to maximize the realization of opportunities.

3. POLICY

A. It is the policy of PFD to have an Organizational Risk Management Plan

B. The Fire Chief has the responsibility for the implementation and operation of the

department's Risk Management Plan.

C. In compliance with NFPA 1500 the Fire Chief *shall* appoint a Health Safety Officer (HSO) to manage the Departmental Risk Management Plan.

D. The HSO shall work with the Department's Safety, Health and Wellness Committee for management and revision of the risk management plan annually based on potential exposures.

E. All members have the responsibility for their health and safety through compliance with the requirements set forth in the Risk Management Plan.

F. It is the policy of the PFD to provide for the safety, health and wellness for all members and to establish programs for the prevention and reduction of accidents, injuries and occupational exposures and illnesses.

G. This concern for safety and health applies to all members of the Fire Department and those who may be involved in Fire Department activities.

H. The PFD shall make every reasonable effort to provide a safe and healthy work environment, recognizing the dangers involved in the types of service we deliver.

I. Members shall operate with heightened concern and awareness for safety and health.

J. PFD will work to provide appropriate training, supervision, procedures, program support and review to achieve specific safety and health objectives in all functions and activities.

4. **PROCEDURE**

A. FOCUS:

i. The Risk Management Plan is intended to comply with the following standards and initiatives.

a. National Fire Protection Association Standard (NFPA) 1500, Standard on Fire Department Occupational Safety, Health and Wellness Program.
b. Code of Federal Regulation (CFR) 29 part 1910 Occupational Safety And Health Standards
c. National Fallen Firefighters Foundation's (NFFF's) 16 Firefighter Life Safety Initiatives (FLSIs):

ii. The Risk Management plan shall manage risk in the following categories:

a. Personnel losses……Death, injury, illness, and exposures
b. Property Loss……..Damage to equipment, apparatus,

facilities

c. Legal Liabilities….....Loss from lawsuits from employees and the public

iii. The Risk Management plan shall address the following areas:
   a. Administration
   b. Facilities
   c. Training
   d. Vehicle operations, emergency and non-emergency
   e. Protective clothing and equipment
   f. Operations at emergency incidents
   g. Operations at non-emergency incidents
   h. Other related activities

iv. It is understood that additional policies may be needed to address specific Organizational Risks. All related SOPs shall be grouped under the 2.5.1 numbering beginning at 2.5.1.1.

B. METHOD:
   i. The Risk Management Plan will follow a standard four (4) step process to Risk Management Hazard Identification, Assessment and Mitigation/Control. (See Addendum A for Guidance)
      a. Risk/Hazards Identification
      b. Risk/Hazards Evaluation
      c. Risk/Hazards Control Measures (Identify ways to reduce those risks)
      d. Prioritize Risk/Hazards reduction measures

   ii. Risk/Hazards Identification:
      a. Identify potential exposures for all operations, both emergency and non-emergency. This shall include, but not be limited to the following information:
      b. Listing of risks to which members are or may be exposed.
      c. Records of previous accidents, illnesses, injuries, and exposures both locally and nationally.
      d. Information on potential exposures specific to known hazards in the community.
      e. Facility, apparatus, and equipment inspections.

   iii. Risk/Hazards Evaluation:
      a. Evaluate the list of risks/exposures using the following criteria:
         i. Assess the vulnerability of critical assets to specific threats and likelihood and consequences of specific types of attacks on

specific assets

ii. Frequency of occurrence.

iii. Severity and impact of occurrence

iv. Risk/Hazard Control measures:

a. PFD has adopted the NIOSH Prevention through Design (PtD) program to show employers the benefits of a culture of safety and prevention in the workplace.

b. The Program is a five-tiered approach to occupational hazards that balances responsibility for the company and the employees, called the hierarchy of controls. The five steps, from most effective to least are:

i. Elimination

1. The elimination stage of the hierarchy of controls is by far the most effective, because it removes the risk of incident altogether. NIOSH recommends that employers examine any job or activity that puts employees at risk of injury. During the evaluation, the company seeks to eliminate any aspect of the tasks that put employees at an unacceptable level of risk

2. *Example: John and Morris run the risk of falling while repairing an overhead light. The company eliminates the safety issue by forcing employees to lower the light to the ground to work on it.*

ii. Substitution

1. Much like elimination, substitution seeks to remove the causes of accidents before an incident occurs. The procedure for substitution follows the same guidelines as elimination, but this time the company examines products and chemicals instead of actions.

2. *Example: Acme Farms sees many employees suffer health problems due to the use of pesticides with DDT. The farm substitutes an organic pesticide, and the health issues go away.*

iii. Engineering

1. Companies use engineering controls to physically separate employees from harmful machines or dangerous working conditions. The company can do so through removing the hazard from the environment or creating a barrier.

2. *Example: Safety Needles that retract to eliminate needle sticks*

iv. Administrative

1. Administrative controls seek to improve workplace safety by creating safer procedures in the workplace. Controls can range from SOPs, the placement of warning signs throughout a facility, employee training programs, and the use of safety tape.
2. *Example: The Riverside Inc. warehouse suffers a series of workplace injuries related to improper operation of forklifts. Company managers begin a thorough retaining and certification program for all operators.*

v. Personal Protective Equipment (PPE)

1. The last option of all the safety controls is reliance on PPE. PPE is any piece of additional equipment, like helmets, gloves, or safety goggles that protect employees from workplace hazards.
2. PPE alone is not a proper control action. PPE must be a part of a larger safety effort, but should never be the primary focus of safety controls.

c. NIOSH's PtD program argues that safety should be a primary concern of employers from the conception of the business through to the operation. An approach that focuses heavily on prevention from the very beginning will foster a culture of safety within management and staff that enables safety protocols to take root.

d. The five-tier hierarchy of safety controls from NIOSH reveals several key areas where companies can improve the safety conditions of their workplace, and protect employees in the process. Companies must use all five tiers to develop a complete safety plan, but over reliance on any one step can have devastating consequences.

v. <u>Risk/Hazards Prioritization:</u>

a. The fire department will prioritize risks based on a risk evaluation. Risks with low or high frequencies and high severity shall be considered high priority and require immediate action.
b. Special attention should be given to low frequency, high severity risks.
c. Training, hazard identification, and sound decision-making are critical for successful mitigation of low frequency, high severity risks.

C. Monitoring the Risk Management Program:

i. The Department's HSO shall, along with the Safety, Health and Wellness Committee, periodically evaluate (at least annually) the Risk Management Plan for effectiveness. Methods of managing new risks shall be developed and implemented.

D. Risk Management at Emergency Operations:
   i. The concept of risk management shall be used on the basis of the following principles:
      a. Activities that present a significant risk to the safety of members shall be limited to situations where there is a potential to save endangered lives.
      b. Activities that are employed routinely to protect property shall be recognized as inherent risks to the safety of members. Actions shall be taken to reduce or avoid these risks.
      c. No risk to the safety of members shall be acceptable when there is no possibility to save lives or property.
      d. Where the risk to the safety of members is excessive, activities shall be limited to defensive operations.
      e. At significant incidents or special operations, the Incident Commander shall designate qualified personnel with specific authority and responsibility to evaluate hazards and provide direction with respect to the safety of operations.

5. EXEMPTIONS

6. REFERENCES

A. NFPA (not limited to) 1500
B. OSHA 29 CFR 1910, 1926
C. CENTER FOR DISEASE CONTROL
D. NIOSH Hierarchy Of Controls
   http://www.cdc.gov/niosh/topics/hierarchy/
E. Prevention Through Design (PtD)
   http://www.cdc.gov/niosh/topics/ptd/

7. FORMS

ADDENDUM A

Hazzard Identification and Assessment

One of the "root causes" of workplace injuries, illnesses, and incidents is the failure to identify or recognize hazards that are present, or that could have been anticipated. A critical element of any effective safety and health program is a proactive, ongoing process to identify and assess such hazards.

To identify and assess hazards, employers and workers:

- Collect and review information about the hazards present or likely to be present in the workplace.
- Conduct initial and periodic workplace inspections of the workplace to identify new or recurring hazards.
- Investigate injuries, illnesses, incidents, and close calls/near misses to determine the underlying hazards, their causes, and safety and health program shortcomings.
- Group similar incidents and identify trends in injuries, illnesses, and hazards reported.
- Consider hazards associated with emergency or non-routine situations.
- Determine the severity and likelihood of incidents that could result for each hazard identified, and use this information to prioritize corrective actions.

Some hazards, such as housekeeping and tripping hazards, can and should be fixed as they are found. Fixing hazards on the spot emphasizes the importance of safety and health and takes advantage of a safety leadership opportunity. To learn more about fixing other hazards identified using the processes described here, see "Hazard Prevention and Control."

- **Action item 1: Collect existing information about workplace hazards**
- **Action item 2: Inspect the workplace for safety hazards**
- **Action item 3: Identify health hazards**
- **Action item 4: Conduct incident investigations**
- **Action item 5: Identify hazards associated with emergency and non-routine situations**
- **Action item 6: Characterize the nature of identified hazards, identify interim control measures, and prioritize the hazards for control**

Action item 1: Collect existing information about workplace hazards

Information on workplace hazards may already be available to employers and workers, from both internal and external sources.

How to accomplish it

Collect, organize, and review information with workers to determine what types of hazards may be present and which workers may be exposed or potentially exposed. Information available in the workplace may include:

- Equipment and machinery operating manuals.
- Safety Data Sheets (SDS) provided by chemical manufacturers.
- Self-inspection reports and inspection reports from insurance carriers, government agencies, and consultants.
- Records of previous injuries and illnesses, such as OSHA 300 and 301 logs and reports of incident investigations.
- Workers' compensation records and reports.
- Patterns of frequently-occurring injuries and illnesses.
- Exposure monitoring results, industrial hygiene assessments, and medical records (appropriately redacted to ensure patient/worker privacy).
- Existing safety and health programs (lockout/tag-out, confined spaces, process safety management, personal protective equipment, etc.).
- Input from workers, including surveys or minutes from safety and health committee meetings.
- Results of job hazard analyses, also known as job safety analyses.

Information about hazards may be available from outside sources, such as:

- OSHA, National Institute for Occupational Safety and Health (NIOSH), and Centers for Disease Control and Prevention (CDC) websites, publications, and alerts.
- Trade associations.
- Labor unions, state and local occupational safety and health committees/coalitions ("COSH groups"), and worker advocacy groups.
- Safety and health consultants.

Action item 2: Inspect the workplace for safety hazards

Hazards can be introduced over time as workstations and processes change, equipment or tools become worn, maintenance is neglected, or housekeeping practices decline. Setting aside time to regularly inspect the workplace for hazards can help identify shortcomings so that they can be addressed before an incident occurs.

How to accomplish it

- Conduct regular inspections of all operations, equipment, work areas and facilities. Have workers participate on the inspection team and talk to them about hazards that they see or report.
- Be sure to document inspections so you can later verify that hazardous conditions are corrected. Take photos or video of problem areas to facilitate later discussion and brainstorming about how to control them, and for use as learning aids.
- Include all areas and activities in these inspections, such as storage and warehousing, facility and equipment maintenance, purchasing and office functions, and the activities of on-site contractors, subcontractors, and temporary employees.
- Regularly inspect both plant vehicles (e.g., forklifts, powered industrial trucks) and transportation vehicles (e.g., cars, trucks).
- Use checklists that highlight things to look for. Typical hazards fall into several major categories, such as those listed below; each workplace will have its own list:
  - General housekeeping
  - Slip, trip, and fall hazards
  - Electrical hazards
  - Equipment operation
  - Equipment maintenance
  - Fire protection
  - Work organization and process flow (including staffing and scheduling)
  - Work practices
  - Workplace violence
  - Ergonomic problems
  - Lack of emergency procedures
- Before changing operations, workstations, or workflow; making major organizational changes; or introducing new equipment, materials, or processes, seek the input of workers and evaluate the planned changes for potential hazards and related risks.

Note: Many hazards can be identified using common knowledge and available tools. For example, you can easily identify and correct hazards associated with broken stair rails and frayed electrical cords. Workers can be a very useful internal resource, especially if they are trained in how to identify and assess risks.

Action item 3: Identify health hazards

Identifying workers' exposure to health hazards is typically more complex than identifying physical safety hazards. For example, gases and vapors may be invisible, often have no odor, and may not have an immediately noticeable harmful health effect. Health hazards include chemical hazards (solvents, adhesives, paints, toxic dusts, etc.), physical hazards (noise, radiation, heat, etc.), biological hazards (infectious diseases), and ergonomic risk factors (heavy lifting, repetitive motions, vibration). Reviewing workers' medical records (appropriately redacted to ensure patient/worker privacy) can be useful in identifying health hazards associated with workplace exposures.

How to accomplish it

- Identify *chemical hazards* –review SDS and product labels to identify chemicals in your workplace that have low exposure limits, are highly volatile, or are used in large quantities or in unventilated spaces. Identify activities that may result in skin exposure to chemicals.
- Identify *physical hazards* –identify any exposures to excessive noise (areas where you must raise your voice to be heard by others), elevated heat (indoor and outdoor), or sources of radiation (radioactive materials, X-rays, or radiofrequency radiation).
- Identify *biological hazards* –determine whether workers may be exposed to sources of infectious diseases, molds, toxic or poisonous plants, or animal materials (fur or scat) capable of causing allergic reactions or occupational asthma.
- Identify *ergonomic risk factors* –examine work activities that require heavy lifting, work above shoulder height, repetitive motions, or tasks with significant vibration.
- Conduct *quantitative exposure assessments* –when possible, using air sampling or direct reading instruments.
- *Review medical records* –to identify cases of musculoskeletal injuries, skin irritation or dermatitis, hearing loss, or lung disease that may be related to workplace exposures.

Note: Identifying and assessing health hazards may require specialized knowledge. Small businesses can obtain free and confidential occupational safety and health advice services, including help identifying and assessing workplace hazards, through OSHA's On-site Consultation Program.

Action item 4: Conduct incident investigations

Workplace incidents –including injuries, illnesses, close calls/near misses, and reports of other concerns– provide a clear indication of where hazards exist. By thoroughly investigating incidents and reports, you will identify hazards that are likely to cause future harm. The purpose of an investigation must always be to identify the root causes (and there is often more than one) of the incident or concern, in order to prevent future occurrences.

How to accomplish it

- Develop a clear plan and procedure for conducting incident investigations, so that an investigation can begin immediately when an incident occurs. The plan should cover items such as:
  - Who will be involved
  - Lines of communication
  - Materials, equipment, and supplies needed
  - Reporting forms and templates
- Train investigative teams on incident investigation techniques, emphasizing objectivity and open-mindedness throughout the investigation process.
- Conduct investigations with a trained team that includes representatives of both management and workers.
- Investigate close calls/near misses.
- Identify and analyze root causes to address underlying program shortcomings that allowed the incidents to happen.
- Communicate the results of the investigation to managers, supervisors, and workers to prevent recurrence.

Effective incident investigations do not stop at identifying a single factor that triggered an incident. They ask the questions "Why?" and "What led to the failure?" For example, if a piece of equipment fails, a good investigation asks: "Why did it fail?" "Was it maintained properly?" "Was it beyond its service life?" and "How could this failure have been prevented?" Similarly, a good incident investigation does not stop when it concludes that a worker made an error. It asks such questions as: "Was the worker provided with appropriate tools and time to do the work?" "Was the worker adequately trained?" and "Was the worker properly supervised?"

Note: OSHA has special reporting requirements for work-related incidents that lead to serious injury or a fatality (29 CFR 1904.39). OSHA must be notified within 8 hours of a work-related fatality, and within 24 hours of an amputation, loss of an eye, or inpatient hospitalization.

Action item 5: Identify hazards associated with emergency and non-routine situations

Emergencies present hazards that need to be recognized and understood. Non-routine or infrequent tasks, including maintenance and startup/shutdown activities, also present potential hazards. Plans and procedures need to be developed for responding appropriately and safely to hazards associated with foreseeable emergency scenarios and non-routine situations.

How to accomplish it

- Identify foreseeable emergency scenarios and non-routine tasks, taking into account the types of material and equipment in use and the location within the facility. Scenarios such as the following may be foreseeable:
  - Fires and explosions
  - Chemical releases
  - Hazardous material spills
  - Startups after planned or unplanned equipment shutdowns
  - Non-routine tasks, such as infrequently performed maintenance activities
  - Structural collapse
  - Disease outbreaks
  - Weather emergencies and natural disasters
  - Medical emergencies
  - Workplace violence

Action item 6: Characterize the nature of identified hazards, identify interim control measures, and prioritize the hazards for control

The next step is to assess and understand the hazards identified and the types of incidents that could result from worker exposure to those hazards. This information can be used to develop interim controls and to prioritize hazards for permanent control.

How to accomplish it

- Evaluate each hazard by considering the severity of potential outcomes, the likelihood that an event or exposure will occur, and the number of workers who might be exposed.
- Use interim control measures to protect workers until more permanent solutions can be implemented.
- Prioritize the hazards so that those presenting the greatest risk are addressed first. Note, however, that employers have an ongoing obligation to control all serious recognized hazards and to protect workers.