# BISBEE FIRE DEPARTMENT
## STANDARD OPERATING PROCEDURES

APPROVED BY MAYOR & COUNCIL

APRIL 2024

# TABLE OF CONTENTS

## BISBEE FIRE DEPARTMENT
## STANDARD OPERATING PROCEDURES

Bisbee Fire Department Standard Operating Procedures

# Communications and Deployment

#2.01 Rev: 03/2021

**SCOPE:**

This policy shall affect all personnel dispatched to a call for service under the jurisdiction of the Bisbee Fire Department. This policy shall further affect and be adhered to for any call for service by an outside agency with which the Bisbee Fire Department has a standing mutual aid or automatic aid agreement.

**PURPOSE:**

The Bisbee Fire Department will respond to any emergency that threatens life, safety, and/or property. Timely response and effective management of any emergency operation require proper communication and adequate deployment of resources to be able to mitigate the many situations found under an all-hazards response.

The ability to communicate and deploy effectively and efficiently is of the utmost importance and is based on practice and refined through discipline. The purpose of this procedure is to provide directions pertinent to communications and deployment as well as guidelines for routine and emergency operations communications. The dispatch center will dispatch units with the required capabilities to control the emergency. The judgment of both the dispatch center and the response personnel is an integral part of the decision-making process, taking into consideration both the information received and the potential that exists.

**SAFETY:**

Efficient and effective communication with common terminology, and knowledge of the capabilities and limitations of the various types of communications are a must to ensure the safety of all personnel on any emergency scene. All personnel on routine and emergency scenes must understand how to communicate and activate the emergency response system as well as what their role is in the communications aspect of that response.

**PROCEDURE:**

Jurisdiction and Mutual Aid

Emergency incidents within the Bisbee Fire Department fire coverage area and the Bisbee Fire Department certificate of necessity (CON) area will be served by the Bisbee Fire Department. Calls for service outside of the defined area of coverage by the Bisbee Fire Department will be dispatched by SEACOM (South East Arizona Command) as a mutual aid response as requested per the authority having jurisdiction (AHJ), (San Jose Fire District, Naco Fire District, etc.) Units will also be dispatched to borderline locations to not delay a response when dispatch personnel cannot make an accurate determination of the AHJ.

Determination of the nature of the problem may indicate that a caller does not have an emergency that requires a fire department response. The identification, prevention, and reduction of unnecessary responses are basic parts of the dispatch center function. The call routing process must not delay response to a valid emergency incident but should attempt to verify the nature of questionable calls. When a positive determination of the need for emergency response cannot be made by the fire department or dispatch center, the policy is to dispatch.

The dividing line for first due areas between Station 81 and Station 82 is defined as Hwy 80 MP 342 (Lavender pit viewpoint) and the area encompassed to the boundaries defined by the Bisbee Fire Department CON for an EMS response and to the City of Bisbee city limits for fire response.

**DEPLOYMENT:**

**Medical Calls**

When an EMS call for service is requested, the first due ambulance will respond with a minimum staffing of two (2) providers. A third provider will respond from station 81 with Rescue 81. To maintain ALS coverage, a minimum of one (1) ALS provider will respond either on Rescue 81 or the first due ambulance depending on the daily staffing. In the instance of a second EMS call for service, the other staffed ambulance will respond regardless of the area with a third provider responding in the next appropriate apparatus. Additionally, if there is only one (1) ALS provider on duty and a second EMS call for service is dispatched, the personnel assigned to the second EMS call may be BLS providers if the sole ALS provider is dedicated to the first call for service. In the event of a Mass Casualty Incident (MCI) and additional off-duty personnel is needed, an "All Call" will be sent out and available off-duty personnel will report to Station 81 and respond to the scene with the next prioritized apparatus defined by the priority list or per the incident commanders instructions.

## Violent Medical Calls

In the event that an incident has been determined to be unsafe to respond directly to the scene, units assigned to the incident shall stage until law enforcement advises that fire personnel can proceed to the scene. Additionally, personnel assigned to violent medical calls will wear appropriate PPE, i.e. ballistic vests, if the possibility of direct bodily harm is present.

Personnel dispatched to medical calls on the international border, including the Port of Entry at the discretion of the shift officer, will wear ballistic vests.

## Fire Incidents

Defined as incidents that require or potentially require water capabilities to extinguish a fire. Due to "on-call" vehicles not having water delivery systems, "On-call" personnel will report to Station 81 instead of the scene per the policy stated below.

## Structure Fires

A structure fire is defined as any occupied or unoccupied dwelling or structure with any involvement of fire or product of combustion.

When a structure fire is dispatched in Station 81 first due area, Engine 81 (PAR 2) and Rescue 81 (PAR 1) will respond directly to the scene, with Medic 81 (PAR 1) responding if staffing allows. Engine 82 (PAR 1) and Medic 82 (PAR 1) will respond from Station 82 directly to the scene. When a structure fire is dispatched in Station 82 first due area, Engine 82 (PAR 2) will respond directly to the scene. Engine 81 (PAR 1 or 2, staff dependent), Rescue 81 (PAR 1), and Medic 81 (PAR 1) will respond from Station 81 directly to the scene. On-call personnel will report to Station 81 and respond to the scene with the next prioritized apparatus defined by the priority list or per the incident commander's instructions. In the event of a major incident and additional personnel is needed an "All Call" will be sent out and available off-duty personnel will report to Station 81 and respond to the scene with the next prioritized apparatus defined by the priority list or per the incident commander's instructions. If the situation requires additional apparatus or personnel, the incident commander should request mutual aid through SEACOM to the appropriate agency.

When a response is dispatched as a "possible" structure fire, smoke in the area, or fire alarm, the balance of the incident will be the same as what is noted above. Units will be dismissed or canceled at the discretion of the incident commander depending on the situation.

## Brush Fires

Brush assignments will be dispatched for reported vegetation fires. The location of the fire will dictate the level of response for the incident.

For brush fires dispatched inside of Bisbee city limits the balance of the incident will include at a minimum, 1(one) Type 6 brush truck, 1(one) Type 1 Structure Engine, and 1(one) Medic Unit. Based on dispatch information, current weather, and daily staff levels, the shift supervisor shall determine the next appropriate apparatus.

For brush fires in the Banning Creek area and/ or subscription areas, the balance of the incident shall be the same as if responding inside of the city with the addition of a water tender.

For brush fires dispatched outside of Bisbee city limits, 1(one) Type 6 brush truck will respond and request additional apparatus and personnel from the appropriate neighboring agency if the situation warrants. Wildland dispatch will be notified, and a higher-level management team may be requested if necessary.

## Vehicle Fires

A vehicle fire is defined as any vehicle having any involvement of fire or products of combustion. The location of the fire will dictate the level of response required for the incident.

If the location is inside Bisbee city limits, both Engine 81 and Engine 82, Rescue 81, and the second due ambulance will respond. PAR levels are dependent upon daily staffing.

If the location is outside Bisbee city limits, the response will be determined by the shift supervisor dependent on location and daily staffing.

## Trash/ Miscellaneous Fires

Trash/ Miscellaneous fires are defined as a fire response that does not fit any other category such as trash can/dumpster fire, burn barrels, cooking fires, etc.

The first due Engine (PAR 2) and Rescue 81 (PAR 1) will respond and determine if additional apparatus and personnel are required.

**Hazardous Materials**

Hazardous Materials assignments will be dispatched for incidents reported to involve hazardous materials. Hazardous Materials situations may include spills, transportation accidents, or similar events. Hazards may include toxicity, flammability, radiological hazards, chemical reactions, and /or combinations of factors.

A Still HAZMAT assignment will be dispatched on calls that include hazardous materials of a minor nature i.e., residential carbon monoxide/ smell of gas, etc. The first due engine (PAR 2) and Rescue 81 (PAR 1) will respond.

An Upgraded HAZMAT assignment should be dispatched for situations involving significant potential danger by materials involved, quantities, location, fire or explosion danger and/or number of people exposed, commercial carbon monoxide/ smell of gas. When an Upgraded HAZMAT response is dispatched, the balance of the incident will be the same as with a "Structure Fire" response. The exception is a transportation HAZMAT incident involving hazardous material release, being transported on public roadways outside Bisbee city limits. In this case, the shift supervisor will determine the appropriate level of response.

Special considerations for deployment on Hazardous Materials incidents include, but are not limited to the following:

- Cochise County Hazardous Materials Response Team
- Fry Fire Hazardous Materials Response Team
- Douglas Fire Hazardous Materials Response Team
- Regional MMRS (State asset available by contacting Tucson Fire Department Dispatch Center)
- Regional Rapid Response Team (State asset available by contacting Tucson Fire Department Dispatch Center)
- AZ ARNG 91st Civil Support Team (State asset available through the Cochise County Emergency Managers Office)

## Special Rescue

Special rescue assignments will be dispatched for incidents that may require specialized equipment and training to extricate patient(s). These incidents include confined space rescue, trench rescue, high angle or rope rescue, water rescue, structural collapse, mountain rescue, and communications tower rescues. Technical rescue calls will consist of the dispatching of the first due Engine, Rescue 81, Utility 81, and second due Ambulance.

Special considerations for deployment on Technical Rescue incidents include, but are not limited to the following:

- Fry Fire Technical Rescue Team (TRT)
- Cochise County Search and Rescue
- Regional Rapid Response Team (State asset available by contacting Tucson Fire Department Dispatch Center)
- DPS Ranger
- Cochise Air (Available through Cochise County Dispatch)

## APPARATUS PRIORITY LIST

### Fire Incidents

- Engine 811
- Utility 81
- Second Due Ambulance
- Squad 81
- Brush 81
- Any Remaining BFD Apparatus

### Medical Incidents

- Second Due Ambulance (2 Person Minimum)
- Medic 811 (2 Person Minimum)
- Medic 821 (2 Person Minimum)
- Second Due Engine
- Any Remaining BFD Apparatus

## Dispatch Channel

The Bisbee Fire Department will be dispatched by the South East Arizona Command (SEACOM). Station alerts will be toned utilizing the FSA Phoenix G2 system. If the FSA system is malfunctioning, calls can be dispatched manually by SEACOM using the "Fire Alert" channel. All response channels will be assigned by SEACOM. Radio channels are subject to change per the discretion of SEACOM and Cochise County communications personnel.

Dispatch information will include.

- Type of response (Fire or Medical)
- Nature of Incident
- Location
- Response Channel

**<u>Example Dispatch Message:</u>**

*"Bisbee Fire Respond to structure fire at 100 Bisbee Rd. Bisbee Fire respond to structure fire at 100 Bisbee Rd. Respond on dispatch fire East."*

*"Bisbee Medics Respond chest pain at 100 Bisbee Rd. Bisbee Medics respond to chest pain at 100 Bisbee Rd. Respond on dispatch fire East."*

*"Bisbee Fire Respond to Hazmat, upgraded response, at 100 Bisbee Rd. Bisbee Fire respond to Hazmat Upgraded response, at 100 Bisbee Rd. Respond on dispatch fire East."*

Should dispatch receive additional calls for the same incident, any additional information gained shall be relayed to responding units as soon as possible. If additional information is needed, responding units shall request it from dispatch.

## Responding

Fire and EMS responses will be code 3 unless otherwise indicated by dispatch, command, or another unit already on scene. The shift supervisor may make the determination as to Code 3 or Code 1 response after reviewing the dispatch information.

Responding units may communicate with one another if radio traffic permits. When responding to structure fires, effective communication during this period can set the stage for effective action and improve the overall rescue and fire attack effort. Factors such as occupancy hazards, access, traffic conditions, and response routes may be communicated. Subsequent arriving units should monitor radio traffic to be fully informed of the situation based on reports of the first arriving units.

Additionally, subsequent responding units will only inform dispatch and command that they are responding. Upon arriving on the scene, these units will make face-to-face contact with the Incident Commander and NOT state they are on scene on the radio. This is to reduce unnecessary radio traffic.

## COMMUNICATIONS

### Tactical Radio Channels

Whenever possible, Command will assign/ isolate a tactical radio channel (Bisbee FD TAC, FIRE Tac East 1, FIRE Tac East 2) based on the following conditions:

- Hazardous incidents or those requiring a significant amount of radio traffic should receive a dedicated/ isolated tactical channel separate from routine radio traffic (examples include structure fires, complex MVA's and MCI's)
- Communication with units might be better on one channel vs. the other based on the geographic location of the call.

### Acknowledgment

Upon being dispatched, a unit responding shall acknowledge dispatch by responding with their unit ID and where they are responding. If a substantial amount of time has passed without acknowledgment, dispatch shall attempt to contact station 81 via telephone or re-dispatch the incident.

When responding to any call not designated as a medical alarm, units responding will give their PAR. This is to inform the Incident Commander of the resources he has available.

### On-scene Reports

The first senior member to arrive at the scene of a major incident shall assume command of the incident. The initial IC shall remain in command until command is transferred, or the incident is stabilized, and command is terminated. Examples would include:

- Structure fires
- Motor vehicle collisions requiring additional resources or extrication
- Mass casualty incidents
- Any incident requiring technical rescue
- Hazardous materials response
- Brush fires

Single-unit responses that are not going to escalate beyond the commitment of these resources do not require the first arriving officer to assume command. The first arriving officer or unit will, however, remain responsible for any needed command functions. Examples would include:

- Single unit responses
- Still alarms
- Public Assists

The first arriving unit initiates the command process by performing a scene size-up and giving an initial radio report.

For structure fires, the standard **Initial Radio Report** includes:

**Fire Initial Radio Report:**

1. Unit Identification
2. Building information and condition
    a. Single-family residence, commercial, big box, etc.
    b. Building type
    c. Current conditions (Nothing showing, Smoke showing, Flame showing)
        i. Approx. percentage involved or area involved (room and contents)
3. Activities
    a. Defensive or offensive mode
    b. Fire control, primary search, ventilation, etc.
4. Needs
    a. Water supply, exposure protection
    b. Additional resources
5. Command Name/ location
    a. Name command
    b. Forward command or fixed command
        i. Command post location

## Follow-up report

1) Any immediate safety concerns
2) Disposition of resources (hold/add/cancel)
3) RIT – in place and identify or bypassing

## Command

Once command has been established, all routine communication between dispatch and the incident will be directed through command.

## Progress Reports

Command will provide dispatch with regular progress reports during active firefighting operations, whenever significant tactical plans are changed, or when unusual situations are encountered. The first progress report should be given after initial action has been implemented and should include the correct address and an improved description of the building and fire conditions if the arrival report was incomplete.

## Working Fire

The term working fire indicates a situation that will require the commitment of all responding units. This report advises dispatch that the units will be engaged in tactical activities and will be held at the scene for an extended period.

When notified of a working fire, dispatch will:

1. Dispatch PD for traffic and crowd control
2. Dispatch appropriate utility companies (Power, Gas)
3. Start Elapsed time notifications in twenty-minute intervals.
4. Document progress reports, assignments, emergency traffic
5. Contact the Chief and Fire Marshal via telephone

## Incident Status & Benchmarks

The following are the different incident status changes that need to be acknowledged by command and annotated by dispatch:

- Working Fire
- Working Hazmat
- Working Technical Rescue
- Mass Casualty Incident

For working Fire or HAZMAT incidents, this change in incident status will prompt elapsed time notifications. The dispatcher will verbally provide command with elapsed time notifications until the situation is declared under control or command requests to discontinue notifications. Elapsed time notifications will also be documented in the call narrative.

**The following are the definitions of incident benchmarks**:

*Command Terminated:* There is no longer a single person in charge of the incident.

*Defensive:* Units operating in the defensive strategy

*Extrication Complete:* All patients extricated

*Knockdown:* The forward progress of the fire has been stopped

*Mayday:* A mayday has been declared on an incident

*Offensive:* Units conducting an aggressive forward attack

*Personnel Accountability Report (PAR):* All personnel assigned to a particular work area or task have been accounted for. It is used to confirm there are no missing fire personnel on the incident site.

*Primary All Clear:* Primary search has been completed. On fire calls an all clear indicates the fire building and all exposures have been searched and all civilians evacuated. In the case of a building that is well involved in fire, the all clear may be delayed and not come until the fire is out.

*Secondary All Clear:* A more comprehensive search of the building has been completed.

*Triage complete:* All patients have been triaged

*Utilities Secured:* Utilities have been shut off to occupancy

*Mop up:* Fire attack and overhaul are completed, units are removing tools and equipment as well as ensuring no other hazards are found.

## Divisions and Group

Divisions are assigned by their geographic location (North Division). Groups are assigned by their function (Ventilation Group). Division or group supervisors should use face-to-face communications with assigned companies as much as possible but should keep command informed of progress via radio or any problems encountered and significant progress.

## Order Model

Radio communications will be regulated by the following order model guidelines:

1) The sender will call the receiver by their unit ID and follow up with the sender unit ID (Hey you, it's me, model)
2) The receiver will give their ID to indicate they are ready to receive.
3) The sender will then extend the message, order, etc.
4) The receiver will give ID and acknowledge receipt of the message. A brief restatement of the message is the best acknowledgment.

*Example: (Command to E81 via radio)*

> ***'E81 from Command'***
> ***'E81'***
> ***'E81 I am going to assign you to fire attack, alpha side accountability will be at the command post, I want you to pull an attack line off your engine through the front door for primary search and fire control'***
> ***'E81 copies assigned fire attack, accountability location at the command post, pulling an attack line through the front door for primary search and fire control'***

## GOOD NEWS REPORTING

Fire personnel should limit good news reporting as much as possible. Good news reporting is the practice of giving routine progress reports without being requested to do so. An example of good news reporting would be, an engine company, working inside an IDLH, notifying command they are still trying to locate the fire prior to being prompted to provide a radio report. Fire crews operating on or en route to the incident should practice radio discipline with some exceptions to the rule, being:

- When requested by command to provide a progress report
- Encountering the need to utilize priority traffic/ mayday
- Communicating a status change
- Providing a PCAN (PAR, Conditions, Actions, Needs) to command

## MAY DAY

"May Day" is a term to be used only in the event of a lost or trapped firefighter. A well-defined communications structure is essential in any rescue operation. Dispatch will play a crucial role in ensuring the effective rescue of firefighters.

## EMERGENCY/PRIORITY TRAFFIC

In the instance where command needs to disperse critical information to all personnel on scene, the incident commander will request an emergency traffic tone from dispatch, an emergency tone will then be rang immediately by dispatch, and IC will then proceed with their information.

*Example: 'Dispatch command, Emergency Traffic.'* Dispatch will immediately activate the emergency traffic tone. Command will transmit his/her message, *'All units operating on the Main Street fire, we are changing to a defensive strategy. Evacuate the structure and report PARS upon exiting.'*

Priority traffic is utilized on the incident scene by the tactical worker to notify command of any critical hazard encountered. For example, priority traffic can be employed by the tactical worker describing a down power line and then it would be left up to the discretion of the IC to follow that priority traffic report with the use of emergency traffic. Listed below are some examples of the proper use of priority traffic:

- Unable to complete a critical assigned task/ tactical objective
- Urgent need to be reinforced/ backed up to complete an assigned task
- Victims encountered
- A roof report that includes; attic fire, untenable roof structure, eminent collapse threat
- Sudden, significant incident events (flashover, backdraft, collapse, down power lines)

All priority traffic reports are to be directed to and acknowledged by the IC. Having the dispatch center acknowledge priority traffic greatly slows down the IC's ability to quickly readjust their IAP and/ or strategy based on these reports.

## RADIO CODE

"Plain Language" radio messages should be used in preference to numerical codes to facilitate understanding. This is also in compliance with NIMS. The following code messages (from the police radio code) may be used in sensitive situations when plain language message could cause a problem at the scene:

901 – Dead Body
999 – Need police assistance immediately

## RADIO PROCEDURE

*Short-Specific*
Before transmitting know what you are going to say. Choose precise terms to communicate the desired message as clearly and briefly as possible without wasting airtime.

*Task-Oriented/ Company Oriented*
Commands ordered to operating units should indicate a specific task assigned to the company. They should be of a magnitude reasonably performed by a single unit alone or in concert with other units.

*Clear Tone/Self-Control Effective Rate*
Speak clearly at a practiced rate. Not too fast and not too slow. Control your emotions and excitement deliberately. If you do not consciously control your voice, it will become garbled under stress.

*Well Timed/ Spaced*
Prioritize your messages. Do not use valuable airtime with unimportant messages and insignificant details. Maintain an awareness of the overall situation and your role in it.

Do not interrupt conversations unless you have emergency/ priority traffic. Listen before transmitting and wait until a message transaction has been completed. Pause between consecutive messages. This will make it clear when one message has been completed and another started. It also allows other units to break in with urgent/ emergent traffic if applicable.

The following suggestions serve as a guideline for speaking into a microphone.

1. Listen to make sure the channel is clear before you get on the air. Do not interrupt.
2. Know what you are going to say and do not make it up as you go along.
3. Press the transmit key for at least 1 second before starting to talk to ensure that the beginning of your message will not be cut off.
4. Give the name of the unit or place being called first, then your identification along with the message to be delivered. Example: "Dispatch, Engine 81 is on Scene".
5. Keep your mouth close to the microphone, about two inches away. It is better to speak across the microphone instead of directly into it.
6. Choose precise terms to communicate the desired message.
7. Prioritize the messages delivered and let critical messages be completed first.
8. Do not relay unimportant messages and insignificant details.
9. Speak clearly and distinctly, in a normal pitch. Do not shout.
10. Keep your voice free of emotion. This does not mean monotone, just a normal conversational tone. It takes conscious effort to keep control. Take a deep breath, relax, and then speak.
11. Keep transmissions brief. If you have a long transmission, break up the message into 30-second segments, and check at the end of each message to ensure it was received.
12. When completing a transmission and immediately directing a transmission to another unit or place, use the terminology "break" in between transmissions to clearly identify the completion of one transmission and the beginning of another.
13. Use discretion. Many people have scanners in their homes, so protect the privacy of the situation or incident.
14. Be professional. Do not use comedy and do not use profanity.
15. Avoid words that are difficult to hear. The word "yes" for instance is easily cut off; use "affirmative" instead.
16. Repeat orders received to ensure understanding.
17. Maintain awareness of the overall situation and how you fit into it.

Bisbee Fire Department Standard Operating Procedures

# Fireground Strategy

#2.02 Rev:03/2021

**SCOPE:**

This SOP applies to all personnel participating in firefighting activities on any fireground in the Bisbee Fire Department response area.

**PURPOSE:**

This procedure describes how the IC develops and uses the incident strategy and incident action plan (IAP) to take the correct actions that match and take control of the incident conditions – all within the overall incident strategy.

**SAFETY:**

An IC properly managing the incidents strategy has the greatest overall impact on responder safety.

Risk management is a key component of strategic decision-making. ICs must avoid taking unnecessary risks to save property when our members are the only life safety threat in the hazard zone.

**PROCEDURE:**

## Matching standard conditions to standard actions for a standard outcome

This is the core of the command system and is the launching pad for all operations. Standard conditions are identified as the incident's current critical factors. We must:

- Identify the incident's critical factors before taking any action
- Our initial and ongoing size-up of the incident's critical factors must produce the information that becomes the basis for the current incident strategy and incident action plan (IAP)
- Current, accurate, and relevant information provides the informational foundation for effective initial and ongoing action.
- This systematic evaluation process continually produces standard, safe, well-managed incident outcomes.

## Strategic Decision-Making Model

The strategic decision-making model gives us an evaluation/ action system that makes the mystery out of initial emergency operations. This model brings the decision-making process into a standard sequence: first, we identify the incident's significant critical factors, and then we base all actions on our evaluation of those factors. By continually evaluating those factors, we keep the plan current and the workers safe.

## Use the Critical Factors to Develop the Incident Strategy & the IAP

We must use a standard evaluation approach and incident-management system to develop and conduct our operations around the incident's critical factors.

## Risk Analysis

Fireground operations will fall into one of two strategies; offensive or defensive. These two strategies are based on a standard Risk Management Analysis that is to be employed on incidents.

The following Risk Management Analysis will be used at all times whenever a hazard zone exists:

- We Will risk our lives a lot, to save savable lives
- We will risk our lives a little, to save savable property
- We will NOT risk our lives, at all, for lives or property that are already lost

The above three levels of risk can only be assumed in a highly calculated and controlled manner. Highly calculated and controlled refers to the effective application of SOPs, training, and safety systems (PPE, radios, apparatus, water, etc) that must be used/ followed at all times, to take any level of risk.

We must always begin our operational response with the assumption that we can make a difference for our customers by conducting standard incident operations. Our risk-management approach is based on us always conducting operations within standard operational and safety SOPs.

Rescue operations in the hot zone are the only place where, based on the possibility of saving a threatened person, risk analysis allows workers to take a significantly higher level of risk. Rescue operations are based on a deliberate situation evaluation, a conscious decision by the IC, and the continual application of the safety SOPs.

The offensive/ defensive strategy should again be re-evaluated and re-declared after an "all clear" has been achieved. Both are critical decision points for the IC.

**Determine the Overall Incident Strategy**

Overall operations strategy is divided into only two categories: offensive or defensive.

- Offensive operations are conducted inside a hazard zone
- Defensive operations are conducted outside of the hazard zone – in safer locations

The two separate strategies create a simple, understandable plan that describes in primitive terms how close the emergency responders will get to the incident's hazards.

The incident's overall strategic decision is based on the incident's critical factors weighed against the risk analysis.

ICs must avoid taking unnecessary risks to save property when our members are the only life safety threat in the hazard zone.

**Declare the Incidents Strategy as part of the Initial On-Scene Report**

Declaring the incident strategy up front, as part of the initial radio report will:

- Announce to everybody the overall incident strategy
- Eliminate any question on where we will be operating on the incident scene (Inside or outside the hazard zone)

**Confirm Ongoing Strategy as Part of the Elapsed-Time Notifications (ETN)**

When an offensive Working Fire, Special Rescue, or hazmat is declared, it will prompt dispatch to begin Elapsed Time Notifications (an IC can also request ETNs whenever they feel it is necessary).

The dispatcher will announce over the tactical frequency an elapsed time notification every (20) minutes until the incident is placed under control, or until command requests to discontinue or restructure the ETNs.

The IC must verbally acknowledge each 20-minute notification by re-announcing the incident strategy over the assigned tactical radio frequency until the incident is placed under control, or until command requests to discontinue or restructure the notifications.

## Standard Fire Department Structure Fire Functions

- Establish a water supply
- Stretch Hose lines
- Operate Nozzles
- Search, rescue, and treatment
- Open up concealed spaces
- Deploy ground ladders
- Pump supply lines
- Supply master streams
- Loss control
- Ventilation
- Forcible Entry
- Provide access/ check for fire extension
- Utility control
- Provide lighting
- Overhaul
- Extrication
- Any other duties assigned by the IC

Every member will be expected to perform all basic functions safely within the limits of their capability, and it will be the ongoing responsibility of command to integrate tasks and objectives as required with the on-scene units/ resources.

## Tactical Objectives

Once the overall incident has been determined, the IC must manage the completion of the tactical objectives for the chosen strategy. Each strategy has a different set of tactical objectives/ considerations that enable the IC to address the incident priorities.

Tactical objectives provide the IC with a simple, short list of major categories that act as a practical 1-2-3 guide during the difficult initial stages of fireground planning. The IAP must be short and simple; complicated IAPs tend to break down during this critical time. Generally, the IC tries to achieve the same basic objectives from one incident to the next. Tactical objectives offer a regular set of "hooks" on which the IC can hang tactical activities to develop a standard approach to solving incident problems. With this standard approach, the IC can manage the basic work sequence at every incident, in the same manner. This creates consistency firefighters can understand and dependability that continually creates standard actions to the current conditions.

**Offensive Incident Action Planning**

When an incident's critical factors and the risk-management analysis indicate the offensive strategy, firefighting forces will enter the hazard zone to attempt to control the incident hazards. An offensive IAP seeks to address the incident priorities by way of following the "**SLICERS**" pneumonic.

**Sequential Actions**

S- Size up
L- Locate the fire
I - Identify and control flow paths
C – Cool the space from the safest location
E – Extinguish the fire

**Actions of Opportunity**

R – Rescue
S – Salvage

**Size Up**

Prior to an incident, having a good understanding of the geographical area will aid the IC in making informed decisions before the incident actually takes place. During an incident, the IC shall do a size-up and relay to dispatch. Information to be included in the initial size up should include the following:

1. Unit Identification
2. Building information and condition
    a. Single-family residence, commercial, big box, etc.
    b. Building type
    c. Current conditions (Nothing showing, Smoke showing, Flame showing)
        i. Approx. percentage involved or area involved (room and contents)
3. Activities
    a. Defensive or offensive mode
    b. Fire control, primary search, ventilation, etc.
4. Needs
    a. Water supply, exposure protection
    b. Additional resources
5. Command Name/ location
    a. Name command
    b. Forward command or fixed command
        i. Command post location

### Locate the Fire

Locating the fire within a structure helps inform the IC of the best and safest way to carry out fire attack. To aid in locating a fire, the tactics used should include a full 360, using a TIC, visualizing the layout, and interpreting smoke conditions.

### Identify and Control Flow Paths

A flow path is defined as the movement of heat and smoke from higher air pressure within the fire area to all other lower air pressure areas, both interior and exterior. Identifying either a unidirectional or bidirectional flow path can inform the IC of interior conditions and can also be used to predict future fire progression. Controlling these flow paths is critical in raising potential victim and firefighter survivability.

### Cooling From a Safe Location

Cooling the fire from a safe location prior to a coordinated interior attack resets the fire, which in turn reduces the chance of flashover, buys time to reach the seat of the fire for extinguishment, and increases the potential time by dramatically reducing temperatures.

### Extinguish

Fire attack shall be accomplished through a coordinated effort with ventilation and rescue. The appropriate size hand line flowing the appropriate GPM (sq/ft divided by 3, multiplied by % involved) will be dictated by conditions on scene. Rapid and efficient extinguishment of the fire increases survivability.

### Rescue

Rescue is an action of opportunity that shall be completed using the "Risk Management" profile. When possible, a primary and secondary search shall be performed to assess the presence of possible victims. This also includes the rescue of firefighters through RIC operations.

### Salvage and Overhaul

Customer service is provided through property conservation as an action of opportunity. All efforts of salvage and overhaul shall be completed with evidence preservation in mind.

## Offensive Search and Rescue Operations

One of the major tactical objectives to accomplish as early as possible in the event is to search for and remove any savable, endangered occupants in the hazard zone, and to protect any customers exposed to the incident hazards.

For offensive structural fires, we achieve the life-safety priority by performing primary and secondary searches in the fire occupancy and any exposures threatened by the fire.

***Primary All-Clear*** is defined as: a quick search and clearing of all affected areas of the structure.

***Secondary All-Clear*** is defined as: a much more thorough, methodical search of the affected areas of the structure(s) once the conditions in the structure have been completely controlled.

If primary search companies encounter and remove victims, the search is still not completed. Additional crews should continue the primary search where the victim was located and removed.

Appropriate medical resources shall be on scene to treat any patients encountered on the incident site.

Command must obtain "Secondary All Clear" of all affected areas once the initial tactical objectives have been achieved.

All initial actions should be directed towards putting water on the fire and ventilating the structure unless there is credible information of survivable occupants inside the hazard zone. **V.E.I.S.** should be utilized when possible.

**V**- Vent in a coordinated manner with fire attack
**E**- Enter the structure
**I**- Isolate the fire area
**S**- Search the fire area

Search and Rescue guidelines:

- The first hand line should put water directly onto the fire for firefighter safety and to support completing primary and secondary searches.
- In working situations, "All-Clears" must be obtained for all residential occupancy types. Smaller sized occupancies will accommodate a more rapid search.
- Larger sized commercial occupancies- all initial efforts directed towards fire control.

- A TIC's primary use is for S&R and crew accountability.
- All personnel working in the hazard zone must either bring in their own hand line or work under the protection of a hand line located in their same geographical location while performing search operations.

### Offensive Fire Control Operations

The term "**Working Fire**" indicates a situation that will at least require the commitment of all responding units. This report advises dispatch that the companies will be engaged in tactical activities and will be held at the scene for an extended period of time.

When the forward progress of the fire is stopped and no other resource is required for fire control, the IC will transmit an "**Under Control**" radio report, signifying that the fire control tactical benchmark has been obtained and no further resources will be required to mitigate the problem.

Standard practice to apply when addressing the fire-control tactical priority:

- Always establish an early, uninterrupted water supply for interior fire suppression activities.
- Consider mobility vs. GPM when selecting the properly sized hose line.
- The highest priority during initial operations is putting water on the fire.
- Water should be applied to the fire as early as possible while coordinating with ventilation.
- The initial interior hoseline should be placed between the fire and the most severe exposure (people or property).
- In most instances, the fire should be cut off and contained/ knocked down to facilitate search and rescue activities and firefighter safety.
- All members in the hazard zone must be working under the protection of a hoseline in their immediate geographical area.
- Interior work times must be tied to SCBA air supplies, and the decision to exit the structure must be based on exiting with an air reserve.

### Defensive Incident Action Planning

A defensive situation is where the incident problem has evolved to the point that lives and property are no longer savable, and offensive tactics are no longer effective or safe. The entire defensive strategy is based on protecting firefighters.

**Firefighter safety is the No. 1 defensive priority. No firefighter should be injured on a defensive fire.**

Defensive Strategy Tactical Objectives:

- Define the hazard zone/ establish the collapse zone
- Evaluate and provide for exposure for exposure protection and evacuation
- Evaluate the need/ feasibility for master streams
- Estimate water supply needs
- Estimate additional resource needs
- Establish/ Re-establish groups and divisions to maintain an adequate span of control

## Transitioning from an Offensive to a Defensive Strategy

When the offensive strategy is chosen on our initial arrival, most of the time, a well-placed initial attack solves the incidents problem. But there are many times (for many reasons) that our initial, and sometimes reinforced attack efforts, do not solve the incidents problems and conditions continue to deteriorate to the point where the critical factors indicate switching from an offensive to a defensive strategy.

ICs must be pessimistic in these types of situations, especially if the structure has a primary "All-Clear". Command must change strategies before the building is structurally unstable. When this happens, command is very late in the strategy shift and on the receiving end of the building's decision governing the new strategy. The IC must be the single person to make the defensive decision, NOT the building coming apart.

The announcement of a change to a defensive strategy will be made as follows;

- Clear Dispatch – Ask for Emergency Traffic
- Emergency Tones transmitted
- Announce to all hazard zone units:
    - Shifting to the defensive strategy
    - All units "Exit" or Abandon" the structure
    - All units report PARs upon exit
    - Dispatch repeats Emergency Traffic report – verbatim

## Exposure Protection – Strategic Separation

Arrangement becomes a major critical factor with defensive fires. The way the main fire compartment/ area is arranged to its neighboring exposures will dictate our operating positions on a defensive emergency scene.

All exposures, both immediate and anticipated, must be identified and protected. The first priority in defensive operations is personnel safety; the second is exposure protection.

Collapse zones should be identified and relayed to personnel. Due to narrow streets and zones, (i.e. Main Street, Naco Rd), it may not be possible to operate out of the collapse zone. In these circumstances, extreme situational awareness must be practiced and all personnel operating in the collapse zone must be in direct contact with the IC or a designated person whose only responsibility is to observe the deterioration of the structure.

Many times, a defensive fire area will threaten exposures. These can be immediate exposures that directly connect to the fire area (apartments and strip malls) or they can be located in very close proximity to the fire area with little separation.

All direct exposures not in the defensive fire area must be searched and protected whenever possible. This exposure protection involves:

- Advancing hand lines into the exposure
- Clearing the exposure
- Opening up and verifying the concealed spaces directly exposed to the defensive fire conditions
- In some cases, direct water application to stop the lateral spread of fire
- In some cases, once extension is verified, write off and move to the net exposure to get ahead of the fire
- In some cases, it will be necessary to write off the entire exposure due to rapid fire extension through common concealed space

Command must be very specific about separating two operating positions (Defensive vs. Offensive). The IC's radio traffic when operating in the overall defensive strategy, while being offensive in the exposures, should sound like this; "Command to all units; we will be operating in the defensive strategy on the main fire occupancy and we'll be offensive in the Bravo 1 and Delta 1 Exposures".

**Defensive Water Application**

Guidelines for defensive water application:

- Master streams are generally the most effective tactic to be employed in defensive operations
- Small-diameter hand lines not directly protecting exposures should be shut down
- When the exposures are severe and water is limited, the most effective tactic is to put water directly on the exposure
- Once exposure protection is established attention may be directed to knocking down the main body of fire and thermal-column cooling
- In the defensive strategy, fire "**under control**" means the forward progress of the fire has been stopped and the remaining fire can be extinguished with the current on-scene resources.

Bisbee Fire Department Standard Operating Procedures

# Fire Attack

#2.04 Rev:03/2021

**SCOPE:**

This policy contains information for proper fire attack and affects all personnel operating on scenes with the Bisbee Fire Department.

**PURPOSE:**

The purpose of this SOP is to provide a consistent approach to structural firefighting strategies and tactics. Fire officers should be well versed in the principles of modern fire dynamics to enable them to think critically and adjust tactics to a specific emergency. These procedures are in no way intended to replace one of the most important assets on the fire ground, the thinking officer.

These procedures are written to provide a standardized vision of strategies and tactics that will be used on the fire ground. If a condition or situation dictates the need to deviate from these procedures, the firefighter should immediately notify the Incident Commander of their actions.

**SAFETY:**

Firefighters operate in an inherently dangerous environment. Following a consistent procedure ensures that every member understands the overall goal and direction of any incident. Safety should be the number one priority in any incident.

**PROCEDURE:**

All firefighters should be intimately familiar with these tactical procedures. Company officers should understand all company assignments and how each unit works within the larger fire ground picture. All personnel should know these procedures well enough that if ever the situation dictates the need to deviate from these procedures, they realize the impact their actions will have on other operating companies and communicate accordingly.

The following definitions are common terminology used on fire grounds. Personnel should be familiar with them and how they are used on the fire ground.

**Collapse Zone –** Area endangered by a potential building collapse. The collapse zone distance is equal to 1 ½ times the height of the building. All apparatus and personnel should be clear of the collapse zone when operating in the defensive strategy.

**Defensive Strategy –** Command option when conditions have progressed past the point of tenability for the offensive strategy and/ or when additional resources are not available. This strategy is declared when the risks outweigh the benefits. This strategy includes an exterior attack for an extended duration.

**Divisions –** Tactical level management unit in charge of a geographic location

**Door Control –** The process of ensuring the entrance door providing access to the fire area is controlled and closed as much as possible before and after teams enter the structure. Steps must be taken to prevent the door from locking behind the entering members. By controlling the door, we are controlling the flow path of fire conditions from the high-pressure of the fire area towards the low-pressure area on the other side of the door. Door control also limits fire development by controlling the flow path of fresh air at the lower level of the open door towards the seat of the fire.

**Flow Path –** The movement of heat and smoke from the higher pressure within the fire area towards the lower pressure areas accessible via doors, window openings, and roof structures. As the heated fire gases are moving toward the low-pressure areas, the energy of the fire is pulling in additional oxygen from the low-pressure areas. Based on varying building designs and the available ventilation openings (doors, windows, etc.), there may be several flow paths within a structure. Any operations conducted in the flow path will place members at significant risk due to the increased flow of fire, heat, and smoke toward their position.

**Flow Path Control –** The tactic of controlling or closing ventilation points that limit additional oxygen into the space thereby limiting fire development, heat release rate, smoke production, and the movement of the heat and smoke conditions out of the fire area to the exterior and other areas within the building.

**Groups –** The management unit at the tactical level in charge of a function (Fire attack, ventilation, search)

**Incident commander –** Referred to as "Command" of the incident. The incident commander is responsible for the oversight and direction of the incident strategy.

**Initial Rapid Intervention Team (IRIT)** – Crew of personnel on the initial arriving company who temporarily assemble to provide for the safety and rescue of the firefighting crews. Once additional manpower is assembled to meet the required "Two-In, Two-Out" rule, they assume their primary function on the fire ground. This OSHA standard has two exclusions that allow fire companies to take the IRIT exception:

1. There is an immediate life safety hazard
2. The fire is encountered in the incipient phase of the fire and can be extinguished with a water can

**Risk Management** – Risk Management analysis should be conducted on all incidents:

*We may risk our lives a lot, in a calculated manner, to protect savable lives.*

*We may risk our lives a little, in a calculated manner, to protect savable property.*

*We will not risk our lives at all to protect lives or property which are already lost.*

**Offensive Strategy** – Command option where critical life safety situations are present and crews will be entering the IDLH to conduct search, rescue, and fire control efforts. This strategy will be utilized when conditions within the IDLH are still tenable for trapped victims, for the quick and immediate suppression of early-stage burning, or credible reports of entrapped occupants or firefighters. This may be considered in non-fire-related emergencies as well (structural collapse, confined space, trench collapse, etc.).

**S.L.I.C.E.R.S.** – SLICE-RS is an acronym for a tactical approach to fire attack centered on reducing temperatures inside a structure by firefighting personnel as quickly as possible. Depending on conditions, this may be accomplished before entering the building for extinguishment or rescue, by way of a transitional attack. The SLICE-RS acronym is further defined later in this SOP.

**Transitional Attack** – The tactic of applying exterior water for 20-30 seconds via a straight stream directed at the ceiling of the fire building at or near the room of origin, before entering the fire building. This tactic reduces fire size and heat release rate, dramatically reduces room temperatures, and has proven to improve tenability for any victims on the interior of the fire building. Transitional attack is typically followed by interior operations working toward fire control, search, and rescue.

### Incident Size Up

A concise size-up of every situation must be communicated. This information sets the tone for the incident and informs other responding units of current conditions and strategies/ tactics. Size-up and initial reports are further described in the SOP, "Command Procedure".

### Incident Priorities

The following priorities will guide decision-making during the incident:

- Life Safety
- Incident Stabilization
- Property Conservation
- Customer Stabilization

### Offensive Strategy

For the initial officer who assumes the role of command, the SLICE-RS acronym will be utilized to accomplish tactical goals. The SLICE-RS acronym is as follows:

*Sequential Actions*
**S**ize Up
**L**ocate the Fire
**I**dentify and Control Flow Path
**C**ool the Space from a safe Location
**E**xtinguish the Fire

*Actions of Opportunity*
**R**escue
**S**alvage

*Sequential Actions (To Take Place In Order):*

### ***Size Up***

Size-up must occur at every fire, and as a result of the size-up, the resources available and situational conditions should be communicated by way of the initial radio report. A tactical plan for the fire must be developed, communicated, and implemented. First-arriving officer/ incident commanders are responsible for obtaining a 360-degree view of the structure involved. Where impractical because of building size or obstructions, the IC should delegate other arriving units to view parts of the structure unseen by the incident commander.

### ***Locate the Fire***

The location and extent of the fire in the building must be determined. Officers should use all means available to make this determination. Thermal imagers should be utilized for the initial 360-degree lap of the structure. The location of the fire and current conditions will dictate the best location to attack the fire.

### ***Identify the Flow Path***

The Incident Commander should identify the presence and/ or location of any flow paths. Efforts should be taken to control ventilation and the flow path to protect potential building occupants and limit fire growth. If a flow path is visible, consider closing doors and windows to limit airflow. When closing doors and windows, firefighters should be aware of any potential rescues readily accessible via doors/ windows.

### ***Cool the Space from the Safest Location***

Given the information obtained during the size up, locating the fire, and identifying the flow path, the IC will determine if high heat conditions exist inside the structure. When high heat conditions are present, the IC will determine the safest and most direct way to apply water to the superheated space, or directly on the fire when available. The primary goal in this step is to reduce the thermal threat to firefighters and potential occupants as soon as reasonably possible.

## ***Extinguish the Fire***

Once the thermal threats have been controlled, the fire should be extinguished in the most direct manner possible. The IC should recognize the potential for the thermal threat to return and should move to extinguish the fire quickly. The IC should ensure the proper Initial Rescue Teams (IRIT) are in place for interior fire attack operations.

*Actions of Opportunity (May Occur at any Time):*

## ***Rescue***

The IC should consider the potential for rescues at all times. Firefighters should be prepared to remove occupants. It should be reinforced that often the best initial action to take is to suppress the fire and remove that element from the tactical equation. The IC and fire ground officers must make a rapid and informed choice on the priority and sequence of suppression activities versus occupant removal. As life safety is the highest tactical priority, rescue shall always take precedence. The IC must determine the best course of action to ensure the best outcome for occupants based on the conditions at that time.

## ***Salvage***

Protecting any unburned items located within the building is also an action of opportunity, with efforts placed on minimizing heat, smoke, and water damage to the contents of the building. Firefighters should use compartmentalization to control fire spread and smoke whenever possible. Early salvage efforts may include closing doors when possible to limit smoke and heat spread, deploying salvage covers to protect occupant belongings, and removing items to an exterior location if these items are not critical to the investigation of the fire's cause and origin.

*Special Note on Ventilation:*

Fire ground personnel should manage, and control openings to the structure to limit fire growth and spread, and to control the flow path of inlet air and fire gases during tactical operations. **All ventilation must be coordinated with suppression activities.** Uncontrolled ventilation allows additional oxygen into the structure which may result in a rapid increase in the size and hazard of the fire due to increased heat release rates.

**Defensive Strategy**

The defensive strategy is implemented whenever the risk-versus-benefit analysis determines that the risk to firefighters' lives and safety outweighs any possible benefit that might be achieved through an offensive attack.

Changing from an offensive to a defensive strategy shall warrant an emergency traffic tone provided through dispatch. After requesting the emergency traffic tone, the IC should make the formal announcement via radio of the change in strategy and request all personnel to exit the building and provide PARs upon safe departure from the structure. The defensive attack must be delayed until obtaining all PAR reports from crews working on the fire ground. When the IC initiates a defensive strategy, the main objectives are to save property that has not yet been destroyed, protect the environment, and protect exposures that are threatened by the fire.

Exiting the structure shall be defined as leaving the structure as an intact crew, keeping the hose line for crew and personal protection while exiting. Abandoning the structure means exiting the building as fast as possible leaving any hose lines behind. Methods for informing interior crews of a change in strategy requiring their exit from the building include radio transmission, long single horn blasts from apparatus, and the surging of the hose lines at the pump panels. Reasons for an abandonment of the structure include imminent structural/ roof collapse or increasing potential for flashover.

Typically, defensive attacks are conducted in the following situations:

- Structural integrity concerns, fire conditions, or other hazards prohibit entry
- Resource needs outweigh resource capabilities
- A risk-versus-benefit analysis indicates that the risk is too great compared to what can be saved

During the decision process of switching to a defensive strategy, several tactical considerations must be evaluated by the IC:

- Establishing a collapse zone
- Evaluating exposure protection and evacuation
- Establish/ Re-Establish groups/ divisions to maintain an adequate span of control.

Defensive fires appear to be a greater challenge and may seem more spectacular, but in reality, they are easier to handle and pose fewer risks to firefighters providing proper precautions are taken. The incident commander must keep in mind the factors that lead to a defensive decision. Firefighters should never be needlessly placed in a dangerous environment.

Bisbee Fire Department Standard Operating Procedures

# Command Procedures

#2.03 Rev: 3/2021

**SCOPE:**

The incident command system should be used at all emergency incidents. It should be applied to drills, exercises, and other situations that involve hazards similar to those encountered at actual emergency incidents, including simulated incidents that are conducted for training and familiarization purposes. It should also be utilized on large-scale pre-planned events.

**PURPOSE:**

With the wide array of emergency incident scenes our personnel respond to, it is imperative to initiate a system to bring organization to chaos. The purpose of an incident command system is to provide structure and coordination to the management of emergency incident operations.

**SAFETY:**

The structure and coordination provided by the incident command system are foundational to ensuring the safety and health of personnel involved in the activities mentioned above.

**PROCEDURE:**

**Command Procedures are designed to:**

1. Fix the responsibility for command on a certain individual through a standard identification system, depending on the survival sequence of members, companies, and officers.
2. Ensure that a strong, direct, and visible command will be established from the onset of the incident
3. Establish an effective framework outlining the activities and responsibilities assigned to command and other individuals operating within the incident command system.

4. Provide a system to process information to support incident management, planning, and decision-making.
5. Provide a system for the orderly transfer of command to subsequent arriving officers.
6. Ensure a seamless transition from a type 5 incident to a type 4, 3, 2, or 1.

**Roles and Responsibilities within the Incident Command System**

Chief Officer

1. Occupy the position of Senior Advisor (Incident Advisor) on the command team (Incident Advisory Team) during any appropriate incident.
2. Occupy the position of incident commander (IC) when appropriate.

Shift Officer/ Supervisor

1. Occupy the position of incident commander (IC) when appropriate.
2. Occupy the position of division or group supervisor when appropriate.

Senior Firefighter

1. Manage task-level activities and supervise firefighters.
2. Occupy the position of division or group supervisor when appropriate.
3. Occupy the position of IC when appropriate.

**Responsibilities of Command**

The incident commander is responsible for the completion of the tactical objectives. The tactical objectives (listed in order of priority) are:

1. Remove endangered occupants and treat the injured.
2. Stabilize the incident and provide for life safety.
3. Conserve property.
4. Provide for the safety, accountability, and welfare of personnel. <u>This priority is ongoing throughout the incident.</u>

ICS is used to facilitate the completion of the tactical objectives. The IC drives the incident command system towards the completion of the tactical objectives by building a command structure that matches these objectives and fits within the incident. The functions of command define standard activities that are performed by the IC to achieve the tactical objectives.

**Functions of Command**

The functions of command include:

1. Assume and announce command and establish an effective initial command position (Command Post).
2. Rapidly evaluate the situation (Size Up).

3. Identify the incident strategy, develop an Incident Action Plan (IAP), and assign units and personnel consistent with plans and standard operating procedures.
4. Initiate, maintain, and control effective incident communications.
5. Provide and manage a steady, adequate, and timely stream of appropriate resources.
6. Develop an effective incident organization using groups/ divisions to decentralize and delegate functional and geographic responsibilities.
7. Review and revise (as needed) the strategy to keep the IAP current.
8. Provide for the continuity, transfer, and termination of command.

The IC is responsible for all of these functions. As command is transferred, so is the responsibility for these functions. The first five functions must be addressed immediately from the initial assumption of command.

**Establishing Command**

The first unit or member to arrive at the scene of a major incident shall assume command of the incident. The initial IC shall remain in command until command is transferred or the incident is stabilized and command is terminated. Examples would include:

- Structure fires
- Motor vehicle collisions requiring additional resources or extrication
- Mass casualty incidents
- Any incident requiring technical rescue
- Hazardous materials response
- Brush fires

Sing unit responses that are not going to escalate beyond the commitment of these resources do not require the first arriving officer to assume command. The first arriving officer or unit will, however, remain responsible for any needed command functions. Examples would include:

- Single unit responses
- Still alarms
- Public assists

The first arriving unit initiates the command process by performing a scene size-up and giving an initial radio report.

**Size-Up and Initial Radio Report:**

The person assuming command shall perfume a size-up of the incident and transmit a brief initial radio report including:

**Fire Initial Radio Report:**

1. Unit Identification
2. Building information and condition
    a. Single-family residence, commercial, big box, etc.
    b. Building type
    c. Current conditions (Nothing showing, Smoke showing, Flame showing)
        i. Approx. percentage involved or area involved (room and contents)
3. Activities
    a. Defensive or offensive mode
    b. Fire control, primary search, ventilation, etc.
4. Needs
    a. Water supply, exposure protection
    b. Additional resources
5. Command Name/ location
    a. Name command
    b. Forward command or fixed command
        i. Command post location

***Example:***
***"Engine 81 is on scene of a single-family residence with wood frame construction, pitched roof. Smoke and flame are visible from the alpha side with approx. 25% involvement. We will be operating in the offensive mode with fire attack and primary search. Incoming engine, secure a water supply. Command will be named Main St Command, Command will be fixed at station 81 on the alpha side of the building.***

Note: These are broad generalizations based on the majority of construction found within our area. This is meant to help streamline effective on-scene reports. The goal is to paint a picture for the incoming units. Do not get caught up in insignificant details, but say what you need to in order to complete the picture. No size-up or initial report template is pertinent for all types of emergencies. There will always be emergencies that the personnel respond to that will be a first for those tasked with painting the picture for additional incoming units. In those situations, use common terms and simple speech:

"What have you got?"
"What are you doing?"
"What do you need?"

**Radio Designation**

The radio designation "**Command"** will be used along with the occupancy or address of the incident (i.e. "Ace Command", or "D Street Command"). The designation will not be changed throughout the incident. The "Command" designation will remain with the officer currently in command of the incident.

## Command Options

The responsibility of the first arriving unit or member to assume command of the incident presents several options, depending on the situation. At many incidents, the initial incident commander will be the first arriving company officer. The following command options define the company officer's direct involvement in tactical activities and modes of command that may be utilized.

1. Investigative Mode (Nothing showing)
2. Forward Command
3. Fixed Command

Investigative Mode:

This is a forward IC on a portable radio, moving around and evaluating conditions while looking for the incident problem. The IC should go with all personnel to investigate while utilizing a portable radio to command the incident.

Forward Command:

If the first arriving officer arrives at a visible working fire/ incident and his/her direct participation in the attack will make a positive difference in the outcome (search and rescue, fire attack, and crew safety), the officer will give an on-scene report and establish a "forward command". The initial arriving officer will go inside with his/her crew and supervise them in the attack. Some examples of forward command situations are:

1. Visible working fire in a house or small commercial occupancy.
2. Critical life safety situations (i.e. rescue that must be achieved in a compressed timeframe).
3. Obvious working incidents that require further investigation by the shift officer.
4. Minimum staffing.
5. Combined crew experience level.

Additional incoming units must recognize the incident commander is in an offensive position inside the hazard zone and is attempting to quickly solve the incident problem.

The forward command mode should not last more than a few minutes and will end with one of the following:

1. Situation is stabilized
2. Command is transferred from the forward IC to a subsequent arriving command officer.
3. If the situation is not stabilized, the forward IC must move to an exterior (fixed) command position and is now in the (fixed) command mode. The company officer must decide whether or not to withdraw the remainder of the crew, based on the crew's capabilities and experience, safety issues, and the ability to communicate with the crew.

**Command Mode – Fixed Command Post:**

Certain incidents, by virtue of their size, complexity, or potential for rapid expansion demand early, strong, fixed command from the outset. In these cases, the first arriving IC will assume a fixed exterior command position outside of the hazard zone. The location of the command post shall be announced to all units and the IC must remain there until the incident is terminated or command is transferred. Accountability should be established at or moved to the command post.

**Transfer of Command**

There are two primary situations in which command should be transferred:

1. A forward IC who transfers command to a subsequent arriving officer (another shift officer/ supervisor, chief officer, who then established a fixed command/ command post). "Passing Command" to a unit that is not on scene creates a gap in the command process and compromises incident management. Command should never be transferred to a unit that is not yet on scene.
2. Transfer of (fixed) command from a shift officer/ supervisor to a subsequent arriving chief officer in the instance the shift officer/ supervisor could be better utilized within the hazard zone. The arrival of a ranking officer on the incident scene does not mean command has been automatically transferred to that officer. Command is only transferred when the transfer of command process has been completed.

The transfer of command must be accomplished through a structured process:

1. The incoming officer contacts the IC directly. Face-to-face is always preferable; however, command transfer by radio can be accomplished, providing the incoming officer has copied all command activity prior to his/her arrival.
2. The IC being relieved will provide a status report that includes:
    a. Situation status- "What have you got?"

   b. Deployment and assignment – "What have you done?"
   c. Tactical needs – "What do you need?"
3. Transfer of command during an incident should be kept to a minimum (ideally no more than once during the incident).

## Expansion of the Command Function

The response and arrival of additional officers and senior personnel strengthen the overall command organization. As the incident escalates, the IC should use these officers to fill division or group positions. Command should consider adding a command officer to any division with three or more operating components. Strengthening the command organization:

1. Improves safety
2. Decreases the span of control
3. Improves communication
4. Improves accountability
5. Improves management of the division/group

Local events that are of long duration or require long-term evacuations may require a larger command staff, which may require the call back of additional personnel.

When an incident is so large or of such duration that state or federal resources are called to assist, an Incident Management Team (IMT) may be assigned to manage these resources. In this case, the Authority Having Jurisdiction (AHJ) will maintain command or delegate authority for managing resources to the IMT. In either case, the AHJ retains the authority to set incident objectives and determine when the IMT, state, and federal resources are no longer needed.

## Command Team

The command team may consist of the Incident Commander (IC) and Senior Advisor. A command team is an organizational response to quickly provide enough command and control to rapidly bring a significant incident under control.

<u>Roles and Responsibilities of the IC:</u>

1. Assume and announce command and establish an effective initial command position (command post).
2. Rapidly evaluate the situation (size up).
3. Initiate, maintain, and control effective incident communications.
4. Provide and manage a steady, adequate, and timely stream of appropriate resources.
5. Identify the incident strategy, develop an Incident Action Plan (IAP), and assign personnel consistent with plans and standard operating procedures.

6. Develop an effective incident organization using divisions/ groups to decentralize and delegate geographic and functional responsibility (when appropriate).
7. Review and revise (as needed) the strategy to keep the IAP current.
8. Provide for the continuity, transfer, and termination of command.

Roles and Responsibilities of the Senior Advisor:

1. Review and evaluate the incident action plan for any needed changes.
2. Provide an ongoing review of the overall incident.
3. Review the organizational structure, to help identify the need for change or expansion to meet incident needs.
4. Provide a liaison with other city agencies and officials, outside agencies, property owners, and/ or tenants.
5. Forecast and react to the effect this incident will have on the surrounding community(s) or organizations.
6. Prepare to transition into a long-term operation by establishing operational periods.

To maintain continuity and overall effectiveness, the Incident Commander and Senior Advisor should be in the command post together. The officer assigned to communicate directly to personnel, groups, divisions, branches, etc. will use the radio designation "Command" and should be the only member of the command team talking on the radio channel.

**Unified Command Team**

On incidents of increasing complexity that involve two or more different agency types, a unified command should be established to provide for better coordination and management of incident operations. Such incidents might include those with a significant law enforcement or public utility component, and/or due to communication limitations.

**Expansion to Major Operations**

As an incident escalates into a major incident, additional organizational support will be required. As additional ranking personnel arrive on the scene, the command team may be expanded by filling section positions. Section chiefs assist the incident command team with the long-term management of the incident and operate at the strategic level. The incident commander implements sections as needed, depending on the situation and needs (one incident may only require a logistics section while another may require all the sections to be implemented).

When the communication system permits, section chiefs should operate on separate radio channels and utilize radio designations that identify their section (planning, logistics, etc.).

During the initial phases of the incident, the incident commander and his/her staff normally carry out these four section functions. They are:

1. Logistics Section
2. Planning Section
3. Operations Section
4. Finance/ Administration Section

## Logistics Section

The logistics section provides services and support systems to all the organizational components involved in the incident. Command may assign the logistics sections its own radio channel. The logistics section chief may establish groups/ divisions or branches for his/her section as needed.

Roles and Responsibilities:

1. Provide rehab
2. Manage staging
3. Provide and manage any needed supplies or equipment
4. Forecast and obtain future resource needs (coordinate with the planning section)
5. Provide any needed communications equipment
6. Provide fuel and needed repairs for equipment
7. Obtain specialized equipment or expertise per command
8. Provide food and associated supplies
9. Secure any needed fixed or portable facilities
10. Provide any other logistical needs as requested by command
11. Supervise assigned personnel

## Planning Section

The Planning Section is responsible for gathering, assimilating, analyzing, and processing information needed for effective decision-making. Information management is a full-time task at large and complex incidents. The planning section serves as the command's "clearing house" for information. Critical information should be immediately forwarded to command (or whoever needs it). Information should also be used to make long-range plans. The Planning Section Chief's goal is to plan ahead of current events and to identify the need for resources before they are needed.

Roles and Responsibilities:

1. Evaluate current strategy and plan
2. Refine and recommend any needed changes to the plan
3. Evaluate incident organization and span of control
4. Forecast possible outcomes
5. Evaluate future resource requirements
6. Utilize technical assistance as needed
7. Evaluate tactical priorities, specific critical factors, and safety
8. Gather, update, improve, and manage information with a standard, systematic approach
9. Liaison with any needed outside agencies for planning needs
10. Supervise assigned personnel

<u>Operations Section</u>

The Operations Section supports the overall strategic plan, as directed by the IC, and works toward the accomplishment of the tactical objectives. The operations section chief is responsible for supervising the activities and resources assigned under his/her span of control.
The safety and health of the personnel operating within the hazard zone should be a primary concern of the Operations Section Chief. He/ She should utilize a tactical radio channel to communicate strategic and specific objectives to group/ division supervisors and/ or branch directors.

Roles and Responsibilities:

1. Coordinate activities with the Incident Commander
2. Implement the incident management plan
3. Assign units to divisions/ groups/ branches based on tactical objectives and priorities
4. Build an effective organizational structure through the use of divisions/ groups/ branches.
5. Communicate tactical objectives to divisions/ groups/ branches
6. Manage operations section activities
7. Maintain personnel accountability
8. Provide for life safety
9. Determine ongoing needs and request additional resources
10. Consult with and inform other sections and command as needed
11. Collect and provide information for an after-action review

If the Operations Chief is located at the command post, he/ she should use the radio designation of "Command". The majority of incidents can be effectively managed with the operations officer located at the command post (this provides for continuity and overall effectiveness). If the Operations Chief is located away from the command post at a forward position, he/ she should use the radio designation of "Operations".

Implementing an "Operations" radio designation in the middle of a major incident can create confusion during radio communications. It is essential that all personnel working at the incident be made aware of the activation of "operations". All group/ division supervisors and branch directors must then direct their communications to the "Operations".

Incident Commander Roles and Responsibilities After Activation of an Operations Officer

Once the operations officer is in place and functioning, the incident commander's focus should be on the strategic issues, overall strategic planning, and other components of the incident. This focus is to look at the "big picture" and the impact of the incident from a broad perspective. The Incident Commander should provide direction, advice, and guidance to the Operations Officer indirection the tactical aspects of the incident by:

1. Reviewing and evaluating the plan, and initiating any needed changes
2. Providing an ongoing review of the overall incident (The Big Picture)
3. Identify Priorities
4. Providing direction to the operations chief
5. Reviewing the organizational structure and initiating change or expansion to meet the needs of the incident
6. Initiating additional section and/ or branch functions as required
7. Establishing liaison with other agencies, property owners, and/ or tenants
8. Collecting and providing information for an after-action review

Finance/ Administration Section

The finance/ administration section evaluates and manages the risk and financial requirements for the incident.

Roles and Responsibly:

1. Procurement of services and/ or supplies from sources within and outside the local response system as requested by Command (Coordinates with Logistics)
2. Manages documentation of all financial costs of the incident
3. Manages documentation for possible cost recovery for the services and/ or supplies
4. Analyzes and manages legal risk for incidents such as hazardous materials cleanup.
5. Serves as the Incident Commanders liaison with: County/ City/ officials, litigators, and regulatory agencies (EPA, OSHA, DOT, etc.)

Bisbee Fire Department Standard Operating Procedures

# Fireground Factors

#2.05 Rev:03/2021

**SCOPE:**

This policy shall apply to all hazard locations where the Bisbee Fire Department is operating.

**PURPOSE:**

Fireground factors offer a standard list that the Incident Commander must consider in the evaluation of an incident. Critical fireground factors are determined through deliberate and focused size-up with the intent of evaluating the incident to determine how and to what extent the tactical objectives will be met for any particular incident.

**SAFETY:**

Critical fireground activities have a direct influence on public safety as well as responder safety. The identification and mitigation of critical fireground factors should be paramount in the response to hazardous situations.

**PROCEDURE:**

The establishment of the crucial fireground factors for any incident is done through the standard process of size-up. Size-up is defined as "an appraisal of the magnitude or dimensions of an event or incident."

The critical fireground factors are meant to be used as a tool to assist the incident commander with simplifying complex information into 7 distinct categories. They are meant to provide the Incident Commander the ability to categorize and simply communicate what is critical within a specific incident. Not all factors are typically critical for every incident. The ability of the incident commander to identify what size-up information is truly critical to the accomplishment of the tactical objectives is very important. It is equally important for the Incident Commander to set aside or disqualify factors that are not directly important to the incident outcome.

It is unacceptable to begin operations before adequately performing size-up and considering the critical fireground factors. A fire attack is many times an instinctive action-oriented process that involves taking the shortest and quickest route directly to the fire. Action feels good in fireground situations while it can be perceived that thinking delays action. Beware of non-thinking attack situations and non-thinking attackers, they are dangerous and unacceptable.

Fireground factors represent an array of items that are dynamic during the entire fireground process. The relative importance of each factor changes throughout that time frame. Command must continually deal with these changes and base decisions on fireground factor information that is timely and current. Beware of developing an incident action plan and sticking to that same plan throughout the fire, even though conditions continue to change. Effective fire operations require action plan revisions that continually reconsider fireground factors based on information feedback.

In critical fire situations, Command may develop an incident action plan and initiate an attack based on incomplete information compiled in an initial size-up. This may leave the Incident Commander with significant questions regarding the incident structure, conditions, and/or occupancy. This is defined as critical unknown information. In such cases, efforts must continue throughout the operation to improve the information on which those decisions are based. Command will seldom operate with complete information during initial operations.

The effective management of each fireground factor requires command to apply all methods of information gathering and communication (i.e., visual, recon, preplan) to each factor. This is particularly true between the major categories of fireground factors. Command must deal with each factor in the most effective manner.

Most incident situations represent a complex problem regarding how command deals with fireground factor information. Some factors can be determined from a command position on the outside of the structure and other factors can only be determined from other operating positions, both outside and inside the structure. During an incident, fireground factor information is gathered utilizing one or more of the following overlapping forms of size up:

1. *Visual:* Fireground factors that are obvious to visual observation and those absorbed subconsciously. This visual information is categorized as the type that can normally be gained by actually looking at a tactical situation from the outside.
2. *Reconnaissance:* Fireground information that is not visually available to command from a position on the outside of a tactical situation and must be gained by actually sending someone to check out, go see, look up, research, advise, call, go find, etc. This generally involves command making a specific assignment for the coordination and completion of a 360-degree recon and then receiving an information-oriented report.

3. *Preplanning and Familiarity:* Intelligence that is gained from formal pre-fire planning and general informal familiarization activities. Such intelligence increases the information initially available to command from the outside of a tactical situation. This information provides command with intelligence that would otherwise have to come from a reconnaissance report or might not be available.

The following are fireground factors that should be evaluated by command as they pertain to each tactical situation. They can be obtained by using the above information management factors.

BUILDING

- Size
- Roof type (bow string, bar joist, etc.) and condition
- Roof covering (concrete, composite, tile)
- Interior arrangement/ access (stairs, halls, elevators)
- Construction type
- Age
- Condition (faults, weaknesses)
- Value
- Compartmentation/ Separation
- Vertical/ horizontal openings (shafts, channels)
- Outside openings (doors and windows/ degree of security)
- Utility characteristics (hazards/ controls)
- Concealed spaces/ attic characteristics
- Exterior access
- Effect the fire has had on the structure (at this point)
- Time projection on continuing fire effect on building

FIRE

- Size
- Extent (% of structure involved)
- Location
- Stage (inception, free-burning, flashover)
- Direction of travel (most dangerous)
- Time of involvement
- Type and amount of material involved (structure/ interior finish/ contents)
- Type and amount of material left to burn
- Product of combustion

OCCUPANCY

- Specific occupancy
- Type/ group (business, mercantile, public assembly, institutional, residential, hazardous, industrial, storage, school)
- Value characteristics associated with occupancy
- Fire load (size, nature)
- Status (open, closed, occupied, vacant, abandoned, under construction)
- Occupancy associated characteristics/ hazards
- Type of contents (based on occupancy)
- Time (as it affects occupancy use)
- Loss control profile/ susceptibility of contents to damage/ specific loss control needs (computers, business records, etc.)

LIFE HAZARD

- Number of occupants
- Location of occupants (in relation to the fire)
- Condition of occupants (by virtue of fire exposure)
- Incapacities of occupants
- Commitment required for search and rescue (personnel, equipment, and command)
- Fire control required for search and rescue
- Needs for EMS
- Time estimate of fire effect on victims
- Exposure of spectators/ control of spectators
- Hazards to fire personnel
- Access rescue forces have to victims
- Characteristics of escape routes/ avenues of escape (type, safety, fire conditions, etc.)

ARRANGEMENT

- Access, arrangement, and distance of external exposures
- Combustibility of exposures
- Access, arrangement, and nature of internal exposures
- Severity and urgency of exposure (fire effect)
- Value of exposures
- Most dangerous direction (avenue of spread)
- Time estimate of fire effect on exposures (internal and external)
- Obstructions to operations
- Capability/ limitations on apparatus movement and use

## RESOURCES

- Personnel and equipment on scene
- Personnel and equipment responding
- Personnel and equipment available in reserve
- Estimate of response time for additional resources
- Condition of personnel
- Capability and willingness of personnel
- Capability of command personnel
- Availability of hydrants
- Supplemental water sources
- Adequacy of water supply
- Built-in private fire protection (sprinkler, standpipe, alarms)
- Outside agency resources and response time

## OTHER FACTORS/ CONDITIONS

- Time of day/ night
- Day of the week
- Season
- Special hazards by virtue of holidays and special events
- Weather (wind, rain, heat, cold, humid, visibility)
- Traffic conditions
- Social conditions (strike, riot, mob)

Bisbee Fire Department Standard Operating Procedures

# Incident Scene Accountability

#2.06 Rev:03/2021

## SCOPE & PURPOSE

Incident scene accountability is critical to firefighter safety and operational effectiveness. Each Level of the incident organization has its own accountability responsibility. No organizational level can oversee the accountability responsibilities for another level.

## Task Level Accountability Responsibilities

Personnel working at the task level have the greatest stake in the accountability system because they operate inside the hazard zone. No incident management system can outperform unsafe behaviors at the task level.

Task-level responsibilities include:

1. Following all staging procedures
2. Being properly assigned to the hazard zone
3. Properly using the passport accountability system
4. Staying together when operating as a crew
5. Always maintaining an adequate air supply to safely exit the hazard zone
6. Maximum depth into a structure – 175 feet – based on air supply
7. No freelancing

## The following rules will be adhered to at all times:

1. The minimum number of personnel assigned to a crew or a team operating in a hazard zone shall be two firefighters with at least one radio
2. Crews or teams always go in and come out together
3. All personnel shall be in contact with their supervisor by either:
    a. Being in voice contact
    b. Having visual contact
    c. Having physical contact
4. Supervisors shall give an accountability report upon exiting the hazard zone to either the IC or their assigned division or group supervisor.

5. Any member whose job assignment is to operate outside of the hazard area is NOT to enter the hazard area without the express permission of his or her supervisor
6. NO member shall operate inside the hazard area alone

## Tactical Level Accountability

It is the responsibility of the supervisor of any crew, group, or division to maintain accountability for those under his direct control. These responsibilities include:

1. Ensuring crew safety
2. Ensuring crew remains on task, no freelancing
3. Ensuring all members are accounted for
4. Complete tactical priorities
5. Manage work/ rest cycle

## Strategic Level Accountability

The IC manages strategic level accountability by strict command & control; deploying resources to specific tasks locations and objectives maintaining the whereabouts of all resources in the hazard zone; and ensuring that frequent PCAN reports are delivered from key tactical areas of the operation.

The key to strategic-level accountability for escalated incident operations is to build an affected incident organization. It is the IC's responsibility to account for all resources until delegated to tactical-level supervisors. The IC does this by assigning D/G responsibilities to supervisors and/ or officers. These officers position themselves in their assigned area and manage their piece of the incident operation. This places strong supervision, management, and leadership in forward positions where the hazards are present. Organizing in this fashion greatly enhances firefighter safety and is the most significant tool at the IC's disposal to increase his/her strategic level capability, especially for escalating incident operations.

Unit accountability must be maintained throughout the incident. The IC must be able to ascertain the accountability status, the location, and the tasks being performed for each crew operating in the hazard zone. This can be done by either direct contact with each crew or by delegating these responsibilities as required to D/G supervisors assigned around the incident site.

## PAR

A Personnel Accountability Report (PAR) involves a roll call and confirmation that all personnel assigned to a crew, or multiple crews assigned to one geographic area of the hazard zone working under the supervision of one supervisor, are accounted for and have an adequate air supply to safely exit the hazard zone. A PAR report should be given upon entering and exiting a structure or hazard zone.

## Passport Accountability System

When used properly, the passport accountability system will increase firefighter safety and provide the IC with a means to track the location and function of all firefighters working in a hazard zone.

## Accountability Hardware

Accountability equipment for each piece of apparatus shall consist of:

1. Passport
2. PAR tag
3. PAR board in each frontline engine

Every member of the Bisbee Fire Department shall be issued a PAR tag with his/ her name permanently fixed on it. One PAR tag shall be placed on the passport for the apparatus that he/ she is assigned to for that shift. Extra PAR tags will be kept on the underside of the member's helmet.

## Passport Application and Use

Implementation of the passport system will occur at any incident that requires the use of an SCBA, or any other incident with an identified hazard zone. The use of the accountability system will commence as the first unit arrives on the scene. The first arriving crew will give an initial radio report and assume command. In the follow-up report, their accountability unit identification and geographic location will be announced.

*"Accountability will be at Engine 81 on the alpha side"*

When arriving on an emergency scene where the Passport Accountability System is in place, each member operating on the scene will need to deliver his/ her PAR tag, either attached to a Passport or individual tag, to the Incident Commander. The Incident Commander will then attach the tags or Passport to the PAR board corresponding to unit and activity.

## Terminating the Passport System

Passport accountability will be maintained throughout the entire incident. Once a unit or member has been released from the scene, he will retrieve his passport from the Incident Commander. Accountability will be terminated once the last passport or PAR tag has been returned to each apparatus or member.

Bisbee Fire Department Standard Operating Procedures

# Firefighter Mayday

#2.07 Rev:03/2021

**SCOPE:**

This shall apply to all personnel working in a hazard zone who may need assistance should they become trapped, lost, disoriented, or in any other situation where help would be needed.

**PURPOSE:**

This will provide information to inform personnel on the process of declaring a firefighter mayday.

**SAFETY:**

To decrease firefighter LODDs, the firefighter mayday procedure has been introduced. If a firefighter finds himself or herself in trouble, declaring a mayday and deploying a RIT team should increase firefighter survival.

**PROCEDURE:**

**Definition of a Mayday Situation**

*"Any situation where a firefighter is unable to safely exit the hazard zone, or other dangerous event that cannot be resolved by that individual in a matter of seconds."*

Any member on any scene is empowered to call a mayday when the above conditions exist. This can be during the response, on scene of any incident, or any time when a member becomes in trouble and a portable radio is available.

Early identification of a mayday situation is critical. The longer it takes to declare a mayday situation, the less likely a successful resolution is possible.

A mayday is initiated by any member communicating **"MAYDAY MAYDAY MAYDAY",** immediately followed by that member's L.U.N.A.R. report, via the portable radio.

The acronym L.U.N.A.R. is a training mnemonic for the following information:

L- Location
U- Unit
N- Name
A- Activities and Air
R- Resources Needed

**Example Transmission:**

*"Mayday Mayday Mayday, this is Firefighter Smith on Engine 81, I'm lost and disoriented in cold smoke and attempting to search for an exit, my air is four-thousand PSI, I have no needs at this time."*

Statistics have shown that oftentimes mayday transmissions are not initially heard on the fire ground. This is the reason for the continuous transmission format above. Additionally, the member calling a mayday must be prepared to repeat the transmission until he or she is heard and acknowledged by the incident commander.

**The Rule of Mayday Readiness**

It is every individual firefighter's responsibility to maintain a high level of Mayday readiness at all times. This includes everyday preparation and prevention as well as the practiced ability to communicate and respond to a mayday scenario.

Mayday procedures and actions are perishable for all levels of an incident organization.

The strategic, tactical, and talks levels of incident scene management should consistently and regularly be exercised for mayday procedures and practices. This includes the dispatch component.

Mayday preparation should be ingrained into everyday activities and practiced at the individual level.

**Definition of Mayday Readiness**

To reach a level of Mayday readiness, a firefighter must adopt an attitude and preparation to look at every incident from the standpoint of *"What if I or another firefighter gets into trouble?"* before the occurrence of a Mayday situation.

Additionally, NFPA 1500 defines mayday readiness as the ability to "don, doff, and manipulate the SCBA in zero visibility while wearing firefighting gloves."

Effectively preventing Mayday situations involves multiple factors. Command Officers, shift officers, and firefighters must reinforce the prevention of scenarios that lead to a mayday.

The most important factors for Mayday prevention begin with the following operational standards:

- Working within the incident management system/ risk management system
- Working within the incident action plan
- Always being accountable to someone within the incident command system (**never freelance)**
- Understanding and forecasting changes in building and fire dynamics
- Maintaining individual and crew air management
- Managing work cycles
- Monitoring distances traveled into structures

To establish effective Mayday readiness, it is necessary to recognize that Mayday readiness has two components. These components are **Prevention and Response.**

### Task Level Mayday Readiness and Response

Every firefighter has the responsibility to actively and routinely prepare for the prevention of Mayday situations and the response to Mayday situations. Individual firefighter responsibilities for Mayday prevention include the following:

- Maintaining SCBA proficiency
- Practicing individual air management
- Use and care of personal protective equipment
- Portable radio proficiency and use
- Practiced crew communications

The shift officer is responsible for crew development and practice. Consistent training and practice with regard to Mayday prevention is critical for rapid and appropriate response in a true Mayday situation. This involves setting a consistent attitude and expectations for all crewmembers regarding Mayday readiness. This also involves developing routines that are encouraged and participated in by the shift officers.

Shift Officer responsibilities for Mayday prevention include:

- Integrating a daily SCBA check into the crew routine
- Practicing crew communication in the hazard zone
- Maintaining knowledge of portable radios and practicing their use
- Ensuring shift officer responsibilities and expectations are clear to the entire crew
- Practicing and maintaining crew integrity/ accountability

## Mayday Readiness and Response

The individual firefighter's response to a mayday situation should be focused on increasing the chances of survival. The development of these skills truly begins at the probationary level and should continue throughout a firefighters career on a daily basis.

Individual firefighter responsibilities for Mayday response include:

- Maintaining preparation and reaction skills
- Early communication of Mayday situations utilizing the above standard
- Controlling an emotional response to the situation
- Once the Mayday situation is recognized and reported, each firefighter should remember:
    - B.O.A. – Breath, Organize, and Act
    - Utilization of fire ground survival training
    - GRAB LIVES
        - G - Check Air **G**auge
        - R – **R**adio for Assistance
        - A – **A**ctivate PASS Device
        - B – Control **B**reathing, Conserve Air
        - L – Stay **L**ow
        - I – **I**lluminate, Turn Flashlight On
        - V – Make Loud Noises (**V**olume)
        - E – Find an **E**xit
        - S – **S**hield Your Airway (Last-ditch effort)

**Strategic & Tactical Level Mayday Readiness and Response**

The strategic and tactical levels of every incident have the responsibility to actively and routinely work toward mayday prevention and preparedness. The responsibilities of the Incident Commander and shift or division and/ or group supervisors include:

- Working within the overall incident action plan
- Continual assessment of the decision-making model
- Management of tactical objectives
- Air management
- Work/ rest cycles
- Distances into structures
- Accountability
- Maintain adequate resources assigned to the incident
- Layered resources in position to manage tactical objectives and prepared to respond in the event of a Mayday
- Maintaining effective and appropriate communications

The responsibilities of the strategic and tactical levels in response to a firefighter Mayday include:

- Responding to the Mayday
    - What resources can we get to the down firefighter the quickest, while maintaining control of the overall incident, within the allowable parameters of the risk management profile? This may be a nearby crew or it may be the RIT. If utilizing nearby crews, the IC must be prepared to immediately reinforce the functions previously being performed by those crews.
- Managing communications with the down firefighter
- Ensuring the search and rescue efforts for the down firefighter are completed provided it is safe to do so
- Increase and maintain resources assigned to the incident, (Calling for mutual aid if available)
- Increase exterior access to the building (ensuring flow paths are controlled)
- Maintain awareness of fire and smoke conditions, as well as building conditions, as rescue efforts are initiated
- When a mayday is called, all personnel will report to command to change air bottles and prepare for IRIT operations.

There is no greater time for a clear and concise utilization of the Risk Management System than during a Mayday event.

It is not acceptable to create further Mayday situations when resolving an existing Mayday.

Conditions must be continuously communicated to the Incident Commander especially as they deteriorate and have an immediate impact upon the rescue efforts.

**Dispatch Center Responsibilities**

It is critical to acknowledge the role the dispatch center will have in the resolution of a Mayday. A significant component of the overall incident management system, including firefighter safety, is the contact between the incident commander and the dispatch center, no matter the incident size. The dispatcher's responsibilities for a Mayday response are as follows:

- A mayday is initiated by a member in the field communicating "Mayday Mayday Mayday" on the radio
- A Mayday can be initiated by anyone, at any time, who is working in the field and has access to a portable radio
- Mayday is not just a fire ground term, it can be used in any hazard zone
- Upon initiation of a Mayday, the dispatcher shall
    - Allow for the Incident Commander to speak with the Mayday initiator
    - Upon request of the IC, transmit the emergency traffic tone

If the first crew on scene and/ or forward IC of a fire incident initiates the Mayday, the dispatcher shall:

- Assure the member that "Help is on the way"
- Maintain communications with the Mayday initiator until other units arrive
- Remind the member to initiate their "GRAB LIVES" procedures
- Ensure all responding units are aware of the Mayday

It is every member's responsibility to maintain his or her preparedness for a mayday situation. The only way to guarantee a successful outcome of a mayday situation is to prevent it. Mayday prevention and preparedness require action at all levels of an incident command system. The ultimate goal for any mayday response is to successfully resolve the mayday and at the same time not create any further mayday situations. A mayday situation will elevate the emotional levels of all involved. All members at all levels of the incident involving a mayday should remember **B.O.A. – Breath, Organize, Act.**

Bisbee Fire Department Standard Operating Procedures

# Rapid Intervention Teams

#2.08 Rev:03/2021

**SCOPE:**

This procedure provides a basic outline of the operations involving the Initial Rapid Intervention Team (IRIT) and Rapid Intervention Team (RIT) on the fire ground.

**PURPOSE:**

This procedure will define the response, tasks, and organization of the Initial Rapid Intervention Teams and Rapid Intervention Team. The RIT function, whether in the form of On-deck or formal RIT, should be established anytime firefighters are on air inside a structure, or anytime command deems it necessary.

**SAFETY:**

A Rapid Intervention Team is set in place for the sole purpose of rescuing and protecting firefighters operating inside a hazard zone. This team should be experienced in handling stressful situations, such as a downed or lost firefighter.

**PROCEDURE:**

**Initial Rapid Intervention Team (IRIT)**

Definition: Temporary two-person RIT assigned during the initial onset of an incident to allow teams to enter an incident determined to be immediately dangerous to life and health (IDLH), or a potentially IDLH atmosphere.

The IRIT/RIT team consists of two firefighters equipped with the following:

1. Full PPE
2. SCBA
3. Radio
4. Attack Line
5. RIT Bag
6. Structure softening tools

In the absence of the standard exceptions below, IRIT shall be established anytime personnel are operating inside an IDLH environment.

### Standard Exceptions to the IRIT Requirements at Structure Fires

1. When there is a reported or suspected life hazard where immediate action could prevent the loss of life.
2. When the fire is in an incipient stage that could be controlled by a portable fire extinguisher, without the use of PPE or SCBA.

### Deployment

Upon determining an offensive attack on a fire will be made, the Incident Commander will assign a team of two firefighters to the IRIT/RIT team. This team will obtain the RIT bag from the engine and place it at the point of entry. IRIT/RIT members may be assigned to other tasks but must be ready to immediately enter the structure or hazard zone in the event of a MAYDAY or other situation where assistance is needed.

Upon deploying the IRIT/RIT team inside of a structure for firefighter rescue, the Incident Commander shall immediately replace those members with an additional IRIT/RIT team.

### IRIT/RIT Considerations & Functions

1. Monitor tactical radio channel en-route and on-scene
2. Consider critical fire ground factors
3. Consider air management (elapsed time)
4. Consider firefighter fatigue
5. Consider the point of entry for crew/members in trouble
6. Consider the last known location of the crew/ member in trouble
7. Consider your water supply/ hose line selection (speed, mobility, and length)
8. Provide timely reports (PCAN) to the Incident Commander
9. Consider alternate exit points
10. Consider carry vs. drag techniques

Bisbee Fire Department Standard Operating Procedures

# Self-Contained Breathing Apparatus (SCBA) Use

#2.09 Rev:03/2021

**SCOPE:**

This policy shall affect all personnel operating in an IDLH environment or in an environment where the use of an SCBA will prevent respiratory injury.

**PURPOSE:**

This procedure will define the proper use, deployment, and maintenance of SCBA.

**SAFETY:**

The use of an SCBA in an IDLH environment greatly improves firefighter survivability and respiratory protection. Use of SCBA is mandatory in environments with oxygen depletion or airborne contaminants.

**PROCEDURE:**

All personnel expected to respond and function in areas of atmospheric contamination shall be equipped with a self-contained breathing apparatus (SCBA) and trained in its proper use and maintenance.

The use of breathing apparatus means that all personnel shall have facemasks in place, breathing from bottled air. SCBAs shall be used by all personnel operating in:

- A contaminated atmosphere
- An atmosphere that may suddenly become contaminated
- An atmosphere in which oxygen is deficient
- An atmosphere that is suspected of being contaminated or oxygen-deficient

This includes all personnel operating:

- In an active fire area
- Directly above an active fire area
- In potential explosion or fire areas, including gas leads and fuel spills

- Where products of combustion are visible in the atmosphere and where invisible contaminants are suspected to be present.
- Where toxic products are present, suspected to be present, or may be released without warning.
- In any confined space, which has not been tested to establish respiratory safety.

When operating at structure fire incidents in an area, which is not, but may become contaminated by products of combustion or other hazardous substances may wear the SCBA with the facemask removed/ at the ready (only in these circumstances). The wearing of SCBA in these situations provides that it will be immediately available for use if conditions change or if personnel are to enter an area where the use of SCBA is required.

Premature removal of SCBA must be avoided at all times. This is particularly significant during overhaul when smoldering materials may produce increased quantities of carbon monoxide and other toxic products, and/ or suspended particulates may be present in the atmosphere.

In structural fire situations, the evaluation of atmospheric conditions is limited. Therefore, the evaluation of carcinogens is limited. For this reason, SCBA with a facemask shall be worn by structural personnel in the fire area and adjacent interior areas throughout the duration of the incident.

During the investigation phase of the incent after overhaul and mop-up is complete, investigative personnel and those assisting investigative personnel may utilize cartridge-type respirators, providing that atmospheric monitoring and CO levels have been recorded at zero (0)PPM.

Regardless of the incident type, whenever there is any doubt about respiratory safety, SCBA use shall be maintained until the atmosphere is established to be safe by testing/ monitoring. This includes vehicle fires and trash fires.

All personnel shall be able to demonstrate a high level of proficiency and compatibility with the SCBA under conditions that simulate those expected as a job requirement, including demonstrating an effective facemask-to-skin seal.

Members shall achieve a non-leaking facemask-to-skin seal with the mask. If facial hair impedes this seal, the hair will need to be trimmed to ensure a proper seal.

Personnel shall check the condition of the SCBA at the beginning of each shift, after each use, and at any other time it may be necessary to render the equipment in a ready state of condition. Each member shall be accountable for their personal/ assigned facemask.

If an SCBA is found to be functioning improperly, it shall be taken out of service, reported, and replaced immediately. The SCBA shall be tagged with who removed it from service and the reason for removal.

When an SCBA is used in an environment where products of combustion or carcinogens are present, each SCBA should be thoroughly cleaned, disinfected, and filled before returning to service.

SCBA facemask fit-testing shall be conducted:

- Annually
- Upon initial issue of SCBA (New hire or new SCBA model purchase)

Bisbee Fire Department Standard Operating Procedures

# Vehicle Fires

#2.10 Rev:03/2021

**SCOPE:**

This procedure applies to all personnel operating at emergency scenes that involve vehicle fires.

**PURPOSE:**

This procedure is to provide information to provide for the effective management and safety of personnel conducting fire suppression activities for vehicle fires.

**SAFETY:**

Any operations conducted on roadways regardless of posted speed limits, are inherently dangerous. Personnel on vehicle fire scenes must remain vigilant with situational awareness to ensure the safety of fire department personnel and the safety of the public.

**PROCEDURE:**

When responding to vehicle fires, all personnel will wear full structural firefighting PPE to include an SCBA. Safety vests are not needed while wearing structural firefighting PPE.

## Apparatus Placement

When approaching a vehicle fire scene, apparatus placement is a critical safety barrier for all personnel operating in the area. If possible, the apparatus shall be placed uphill and upwind for protection from smoke, liquids, and vapors. Apparatus may also be utilized to create a barrier to prevent other vehicles from entering the hazard area. All warning lights should still be left operating in conjunction with traffic cones if appropriate or necessary. Law enforcement shall reroute traffic or direct traffic around the hazard area. Traffic lanes may also be closed to define a safe work area.

## Water Supply

Large vehicles or vehicles potentially threatening structures may require large amounts of water. Establishing a water supply may be necessary to ensure adequate quantity, flow rate, and pressure. The use of foam can be considered for vehicle fires, care should be taken to ensure the foam utilized is compatible with Class B and Alcohol blended fuels.

## Fire Attack

A free-burning stage fire involving the interior of the vehicle's passenger compartment can quickly damage the vehicle beyond repair. As such, the attack plan should consider the vehicle as not salvageable (unless there are victims entrapped inside the vehicle) and a safe and appropriate approach and fire attack must be implemented. If occupants are trapped inside the vehicle, water or extinguishing agent should first be applied to protect the occupants and permit rescue. When approaching a vehicle, responders should approach from a 45-degree angle towards the side of the vehicle. This will reduce the potential of being struck by exploding energy-absorbing bumpers or hold open devices. When possible, a chock block should be placed around the tires to prevent the burning vehicle from rolling forward.

## Hazard and Safety Considerations

*Liquid Petroleum Gas (LPG) and Liquid Natural Gas (LNG)*:
If there is flame impingement on an LPG/LNG storage tank, take action to control the fire and cool the tank to prevent BLEVE. If vapors escaping from the storage tank relief valve have ignited, allow the LPG/LNG to burn while protecting exposures and cooling the tank.

*Energy Absorbing Bumpers and Hold Open Devices*:
When heated, bumpers and hold-open devices may develop high pressures sufficient to cause a violent release of the bumper assembly and/ or hold open cylinders.

*Batteries:*
Flammable hydrogen vapors may cause explosions. Contact with battery acid should be avoided. Hybrid vehicles contain large batteries, this should be a note of concern during mop-up.

*Combustible Metals:*
Large quantities of water will cool the combustible metal below its ignition temperature. Dry chemical extinguishers can also be effective on combustible metals. Special consideration should be given to magnesium, which can burn and react violently with water. Fight the fire, initially, from a distance, using the full reach of the stream.

*Interior:*
Well-sealed interiors of modern vehicles present the potential for backdraft.

*Vehicle Stability:*
Tires of split rims exposed to fire may explode, releasing projectiles and causing the vehicle to drop suddenly.

*Airbags:*
Even after the keys have been removed from the ignition and the battery disconnected, airbags may still deploy. Personnel should be aware of this and operate accordingly.

*Environmental Considerations:*
Every effort should be made to prevent spills and runoff that may be hazardous to the environment by damming and/ or using absorbent pads and other spill containment material.

Bisbee Fire Department Standard Operating Procedures

# Hazardous Material Response

#2.11 Rev:03/2021

**SCOPE:**

This SOP contains the response procedure for emergencies involving hazardous materials:

- Liquefied Petroleum / Natural Gas
- Carbon Monoxide
- Flammable and Combustible Liquid Leaks
- Corrosive Incidents
- Clandestine Laboratory Incidents
- Hazardous Device Response
- Oxidizers
- Radioactive Materials
- Cryogenics
- Poisons
- Biological Agents

**PURPOSE:**

The purpose of this plan is to provide the Bisbee Fire Department and agencies that may respond with the Bisbee Fire Department with an organized plan to mitigate an emergency involving hazardous materials and to ensure safe and professional actions by all involved agencies.

This procedure intends to enhance existing systems and provide a consistent level of hazardous material response capability among agencies in the Bisbee area. This plan should complement existing plans and is not intended to usurp existing emergency response plans of any agency. This procedure is intended to comply with the minimum requirements of Occupational Safety and Health Administration (OSHA) 20 CFR 1910.120(q)(1)

**SAFETY:**

Hazardous materials incidents encompass a wide variety of potential situations including fires, spills, transportation accidents, chemical reactions, explosions, and similar events. Hazards involved may include toxicity, biological, flammability, radiological hazards, corrosives, explosives, health hazards, and combinations of factors. Officers should remember that hazardous materials technicians cannot operate offensively until all the required components of OSHA 1910.120(q) are in place. Offensive tactics require technician-level hazmat personnel, specialized equipment, and an incident action plan.

Avoid premature commitment of resources and personnel to potentially hazardous locations. Proceed with caution in evaluating risks before formulating a plan and keep uncommitted crews at a safe distance.

With responder safety in mind, attempt to identify the type of materials involved and the hazards presented before formulating a plan of action. Look for labels, markers, and shipping papers; ask for information from personnel at the scene (responsible party, truck drivers, specialists, etc.)

Utilize reference materials carried on apparatus such as the DOT Emergency Response Guidebook (ERG) and contact other sources for assistance in sizing up the problem as needed.

Transportation emergencies are often more difficult to mitigate than those at fixed locations. The materials involved may be unknown, warning signs may not be visible or obscured by smoke and debris, and/ or the driver may be killed or missing. DOT hazmat marking systems may be inadequate due to some products in quantities of up to 1000 lbs. are not required to have placards and combinations of products involved may only be labeled with a "Dangerous" placard. Sometimes only the most evident hazard is identified, while additional hazards are not labeled.

Do not touch any suspicious devices. Avoid the use of radios or cell phones near suspicious devices. Electronic signals from radios, cellular phones, or other electronic systems may cause certain devices to detonate. Evacuate the area if the threat is credible.

**PROCEDURE:**

The role of responding agencies to a hazardous materials incident is to ensure life safety, incident stabilization, property conservation, and environmental protection. Base response activities upon information received and the type of hazardous material released.

**Still Hazmat Response**

A still hazmat incident poses minimal danger to life, property, and the environment. Container size may be a small drum, bucket, package, or bag and has a low fire/ explosive potential. This type of incident is limited to the initial area of involvement and unlikely to spread. Evacuation should be limited to the immediate area. Personnel can contain or confine with available resources. This includes being dispatched to the following types:

- Small spills/ release of a known substance. Quantity less than 55 gallons
- Odor of natural gas or propane (see flammable gas response)
- Flammable/ Combustible liquid leaks/ spills (see flammable liquid response)
- Southwest Gas Co. support such as residential gas line rupture
- Carbon Monoxide Alarms (refer to Carbon Monoxide Incidents SOP)
- Corrosive spills or leaks – small quantity
- Law Enforcement support for clandestine drug labs
- Law Enforcement & Bomb Technician support for hazardous devices, including simple pipe bombs, military ordinance, IEDs, vehicle-borne explosive devices, incendiary devices, and chemical pressure devices

With responder safety in mind, personnel must wear full structural fire protective clothing and SCBA when responding to hazmat incidents. Approach the incident from an uphill and upwind position if possible. Uphill positioning is preferable when winds are variable. The following items should be considered as a minimum for a safe and effective initial response:

1. Position all vehicles far enough away from the release to allow for a safe retreat if necessary (300 feet minimum if dealing with an unknown product).
2. Establish a command post
3. From a defensive posture and safe distance, attempt to determine whether the product is a gas, liquid, or solid.
4. Avoid contact with the product being released. Remember that many hazardous materials are colorless, odorless vapors.
5. Make sure that the initial size-up includes the type of situation found and proper response routes for incoming units.

6. Consider all drums, containers, cylinders, and tanks as being full, and the materials in them to be hazardous materials until proven otherwise.
7. Establish an initial isolation zone based on information in reference materials such as the DOT Emergency Response Guide (ERG) and scene factors. Ensure all individuals without proper PPE (police, fire, civilian, and EMS) are removed from the initial isolation zone.
8. From a safe distance attempts to identify the product via placards, labels, UN numbers, chemical names, etc. Also, attempt to determine the type/ size of the container, the amount of product being released, and the name of the shipper or manufacturer. Refer to the ERG.
9. RESCUE – The decision to attempt a rescue should be based on a risk versus benefit assessment, taking into account limited resources, lack of adequate PPE, responder risks, and assessment of victim viability.

**Upgraded Hazmat Response**

An Upgraded HAZMAT assignment should be dispatched for situations involving significant potential danger by materials involved, quantities, location, fire or explosion danger and/or the number of people exposed, commercial carbon monoxide/ smell of gas. When an Upgraded HAZMAT response is dispatched, the balance of the incident will be the same as with a "Structure Fire" response. The exception being a transportation HAZMAT incident involving hazardous material release, being transported on public roadways outside Bisbee city limits. In this case, the shift supervisor will determine the appropriate level of response.

Hazmat-upgraded incident types involve calls with limited to moderate danger to life, property, and the environment, and/ or may have the potential of involving additional exposures. This includes dispatches to the following incident types:

- Hazmat incident with any exposed/ contaminated victims
- Commercial gas line rupture
- Release of 40 pounds or more of a hazardous solid
- Release of 55 gallons or more of a hazardous liquid
- Localized exposure and evacuation area
- Limited moderate potential for fire/ explosion

The resources summoned to an upgraded hazmat incident are to continue to operate in a defensive posture. Operations in any IDLH environments require minimum Federal & State mandated complement of technician-level hazmat personnel and specialized equipment/ PPE. The following items should be considered as a minimum for safe and effective upgraded hazmat response:

1. Establish scene control: Perimeter and safe zones
2. Employ air monitoring and use of meters pertinent to the incident to confirm and monitor the safe zones

3. Provide gross decontamination
4. Provide further investigation and research from a defensive posture
5. Determine threats to exposures such as waterways, groundwater, airborne exposures, etc.
6. Determine if an IDLH environment exists, or the probability thereof
7. Determine the necessity of a larger response from outside agencies/ CCHMRT.

If at any time of any hazmat incident type, the Incident Commander determines that the situation has exceeded the capabilities of the Bisbee Fire Department, the following resources may be requested:

- Cochise County Hazardous Materials Response Team
- Fry Fire Hazardous Materials Response Team
- Douglas Fire Hazardous Materials Response Team
- Regional MMRS (State asset available by contacting Tucson Fire Department Dispatch Center)
- Regional Rapid Response Team (State asset available by contacting Tucson Fire Department Dispatch Center)
- AZ ARNG 91st Civil Support Team (State asset available through the Cochise County Emergency Managers Office)

Allocation of higher levels of resources can be obtained through assistance from the Cochise County Emergency Services Coordinator.

**Flammable Gas Response:**

Natural Gas is much lighter than air and will usually dissipate rapidly in the outside environment. Inside buildings, however, it tends to pocket, particularly in attics and dead-air spaces. The flammable limits are approximately 4% to 15% in air.

Propane Gas is heavier than air and will not dissipate as readily as natural gas. Propane is a liquefied petroleum gas (LPG). When released from its pressure container, propane will become a gas and will hug the ground and accumulate in low-lying areas. Propane has a flammable range of 2% to 10% in air.

Propane and Natural Gas are considered non-toxic, however, both gases displace oxygen and can result in asphyxiation in confined spaces.

Liquefied Petroleum Gas (LPG) also referred to as simply propane or butane, are flammable mixtures of hydrocarbon gases used as fuel in heating appliances, cooking equipment, and vehicles.

Flammable gas concentration percentages can only be determined by a combustible gas instrument. Do not rely on gas odor (mercaptan) since the mercaptan odorant can be scrubbed off, such as when leaking through damp soil.

Request Southwest Gas (SWG) utility company response for incidents involving natural gas. For Incidents involving propane/ LPG contact the product supplier.

Burning gas should not normally be extinguished since this would change the situation from a visible to an invisible hazard with explosive potential. Fires should be controlled by stopping the flow.

1. Position apparatus upwind and at a safe distance. Remember that apparatus can be an ignition source.
2. Perform a size-up and gather information as needed.
3. Evacuate people still in the area. Request the assistance of law enforcement> Consider using the apparatus PA system if needed.
4. Ensure that the appropriate gas company has been contacted (SWG or LPG supplier.
5. Consider possibly shutting down the gas meter provided it is safe to do so.

Incidents involving pipelines, service lines, and complex meter leaks are to remain in the defensive mode.

The gas monitors shall only be used to identify hazardous locations in relation to responder operations. Personnel are not to deem an area "safe" without further verification from Southwest Gas Co. Complex incidents involving natural gas may also include a hazmat team response as needed.

The same considerations should be taken when responding to calls involving liquefied petroleum gas (LPG). During LPG incidents involving the tank, the supplier company responsible for the tank should be notified. If a leak is suspected inside a residential structure, personnel should consider shutting off the gas supply to the residence and informing the resident to contact a certified maintenance/ repair company.

**Flammable Liquid Response:**

Flammable liquids present particular problems for fire protection, health, safety, and environmental protection. Challenges include fire extinguishment, ignition prevention, and disposal of spills. All three of these may be involved in the same incident.

<u>Extinguishment</u>

The preferred agent for flammable liquid firefighting is F500 Encapsulating Agent.

In addition to the previously listed response considerations, flammable liquid releases should include the following considerations:

1. Small spills may be picked up with absorbent and properly disposed of.
2. Spills over 25 gallons require notification to the appropriate regulatory agency such as ADEQ
3. Large spills and leaks involving large containers will require a hazmat team response. First responders should take only defensive actions.
4. When large spills or containers are involved in fire, water application may not be the most prudent course of action. Officers will have to weigh the environmental benefits of allowing a burn-off against life safety and property conservation factors.

**Hazardous Device Response:**

Initial reports of a hazardous device or bomb threat will receive an initial response of the first due Engine and Rescue 81. If additional resources are needed for containment, they should be requested through dispatch.

1. The ATF Bomb Standoff Distance Chart should be referenced to assist in implementing minimum standoff distances based on the suspect device.
2. The local jurisdictions' law enforcement agency, either BPD or CCSO, should take command of the incident with the Bisbee Fire Department providing assistance. Additional law enforcement agencies may be dispatched as well depending on the situation.
3. Officers must remain aware of the potential for a secondary explosive device or other secondary attack.
4. Post-explosion response will be based on a risk versus reward analysis.

**Clandestine Drug Laboratories**

Clandestine drug laboratory investigations, seizures, and arrests of suspects are all law enforcement agency matters.

Personnel who encounter a suspected laboratory should withdraw to a safe location as soon as it is possible, using discretion in actions and radio conversation. If a situation warrants additional immediate actions (e.g. evacuation of surrounding areas or rescue), the decision should be based on a risk versus benefit assessment, taking into account limited resources, lack of adequate PPE, responder risks, and assessment of victim viability. Requests from law enforcement agencies for fire department assistance with clandestine laboratory incidents may warrant a response from the CCHMRT.

The recognition of the presence of a clandestine drug laboratory that is involved in a fire may not occur until after fire control has been achieved. The initial indications of the presence of a laboratory may be subtle or very apparent. Depending on the products involved, a fire in a lab can spread faster and burn with more intensity than what might normally be expected. The color of the flames may appear to be an unusually bright or dark orange, or the flames may be of several different colors. An unusual color of smoke or odor may also be present. A defensive mode may be appropriate for personnel safety. Standard protective clothing and SCBA may not afford complete protection. An acceptable alternative is to protect any exposures and allow the fire to burn, providing the products of combustion being generated do not complicate the problem further. Runoff may also create a problem and diking may be necessary.

Bisbee Fire Department Standard Operating Procedures

# Carbon Monoxide Emergencies

#2.12 Rev:03/2021

**SCOPE:**

These guidelines contain response parameters for response to Carbon Monoxide (CO) emergencies.

**PURPOSE:**

To establish a standard and common procedure for responses to Carbon Monoxide incidents.

**SAFETY:**

Personnel may not always know what the situation is before entering a building. A report of a sick person gives only a vague idea of their condition. Carbon monoxide is extremely dangerous and responders must be alert to the possibility of CO at a residence reported to have multiple sick people. When in doubt, the safety of responders is paramount, exercise due caution where such concerns exist.

**BACKGROUND:**

Carbon monoxide is an odorless, colorless, and tasteless gas that is deadly. CO has a vapor density of 0.97, which is slightly lighter than air; therefore this product tends to rise. CO has a flammable range from 125,000 PPM to 740,000 PPM. Entry crews shall be aware of this when metering the structure for CO.

While CO is often associated with fossil fuels, it is important to remember it is also the result of incomplete combustion of wood and charcoal. Many appliances such as furnaces, kitchen stoves, water heaters, automobiles, etc., can produce carbon monoxide. When a faulty or unusual condition exists, carbon monoxide may be vented into areas where people are present. Carbon monoxide poisoning may be difficult to diagnose but symptoms may include headache, nausea, dizziness, fatigue, confusion, and shortness of breath. Cardiac patients are highly susceptible to CO poisoning and may experience chest pain.

**PROCEDURE:**

Considering that the Occupational Safety and Health Administration (OSHA) has established a maximum safe working level for carbon monoxide at 35 PPM over an 8-hour period in the general workplace, and the U.S. Environmental Protection Agency (EPA) has established that residential levels are not to exceed 9 PPM over an 8-hour period, our policy shall require 100% SCBA use on fire scenes until all suppression and overhaul activities are complete, regardless of CO level.

On carbon monoxide responses, CO levels greater than 10 PPM shall require SCBA use.

## Response Criteria

Carbon monoxide (still) alarms shall be dispatched as a *"Still Hazmat Response."*

If it is determined that an EMS situation has occurred, such as occupants are symptomatic or complaining of symptoms related to a possible exposure, the response shall be upgraded to an *"Upgraded Hazmat Response".* Dispatch shall advise occupants to vacate the structure immediately.

If a carbon monoxide detector is activated and occupants are not symptomatic, a routine response is indicated. Dispatch shall advise all occupants to evacuate the structure and close all doors when exiting.

For any carbon monoxide response that is "upgraded" or "working", dispatch shall contact the fuel provider automatically.

## On-Scene Procedure

1. Advise all occupants to evacuate the structure until the situation is mitigated. The first arriving officer shall establish scene control per incident command procedure as necessary.
2. Do not ventilate the structure until initial CO readings are obtained and isolating potential faulty equipment is achieved. The structure can be ventilated once this has been completed and readings documented. Firefighters should be aware of any pockets where increased levels of CO could be present even after ventilation. These areas should be monitored and brought to safe levels before clearing the building for occupancy.
3. An interview of the occupants should take place outside of any suspected contaminated areas. Information to be gathered:
    a. Determine if the alarm is from a smoke detector or carbon monoxide detector

i. If from a smoke detector, investigate the cause of the alarm and take the necessary action
ii. If from a carbon monoxide detector, determine if occupants are asymptomatic for CO exposure
    1. If symptomatic – anyone feeling ill currently or in the past week
        a. Evacuate immediately and ventilate the premises
        b. Request necessary EMS response
        c. Begin investigation procedure
    2. If Asymptomatic
        a. No evacuation or ventilation will be necessary unless a level of 9 PPM over baseline is detected by a metering device
    3. Request an immediate response from the fuel provider

4. Gather information from the occupants regarding activities and what, if any, combustion appliances were being used.
    a. Where is the detector located?
    b. How long has the detector been alarming?
    c. Has the structure been ventilated? If so, how long?
    d. Was a car running in an attached building?
5. If contact cannot be made, check with a neighbor or look in windows. If forcible entry necessary, or if entry is delayed for any reason, immediately request police assistance. Shut off the gas to the residence. Enter in full protective gear, including SCBA.

**Preparing and Using the CO Meter**

1. Follow the manufacturer's instructions to calibrate the unit each time it is used
2. A CO monitor shall be zeroed in fresh air and accompany the crew making entry
3. Allow appropriate time for the meter to accurately obtain a reading
4. If occupants are symptomatic, SCBA is required before entering. Any reading of 10 PPM or higher requires personnel to use SCBA to continue to work within the structure
5. If occupants are not symptomatic, personnel should be wearing an SCBA, but only need to breath bottled air if CO levels are 10 PPM or greater.
6. If the CO detector records readings less than 9 PPM:
    a. Inform the occupant that the department's equipment did not detect an elevated CO level at this time
    b. Verify findings with fuel providers monitoring equipment
    c. Attempt to reset occupants' detector
    d. Inform the occupant that if the detector activates again to call 911
7. If the CO detector records a level greater than 9 PPM, but less than 100 PPM:
    a. Verify with fuel providers' equipment

   b. Inform occupant that a reading above 9 PPM is considered an abnormal reading and may be potentially dangerous
   c. Recommend that all persons leave the premises and begin ventilation unless fuel provider personnel advise that ventilation is not necessary
   d. Do not attempt to adjust or repair any appliances
   e. If a source appliance is identified, control the leak as safely as possible, and advise the occupant to contact a certified appliance technician
   f. Allow fuel provider personnel to perform further investigation
   g. Begin customer assistance process in finding shelter, if necessary
8. Reading greater than 100 PPM:
   a. Verify with fuel providers' equipment
   b. Inform occupants that any reading greater than 100 PPM is considered a potentially lethal environment
   c. Order all occupants to leave the premises and begin ventilation
   d. Shut off gas and electrical utilities to occupancy, unless fuel provider personnel are on scene and advise otherwise
   e. Allow fuel provider personnel to perform further investigation and hazard mitigation
   f. Begin customer assistance process in finding shelter, if necessary

**Potential CO Sources**

Any vehicle with a combustion engine; gasoline, propane, or diesel-fueled appliances; lawnmowers; power generators; furnaces; water heaters; clothes dryers; natural gas or propane refrigerators; ranges; ovens; space heaters; fireplaces; gas logs; wood and coal stoves; charcoal or gas grills; kerosene heaters; wood stoves; any other equipment that burns fuel.

Examine flues, vents, and chimneys for blockage by birds or other animal nests or debris. Note any loose or disconnected vent or chimney connections, any loose or missing furnace panels, and any debris or soot in the chimney. Advise occupants to have flues, vents, and chimneys professionally serviced if problems are indicated.

If there is an attached garage, were there any vehicles in the garage in the past 12 hours? Were there any vehicle engines running in the last 12 hours?

**Documentation**

Crewmembers shall obtain all pertinent owner/occupant information for incident reporting. Information concerning the equipment involved (make, model, serial number) shall be documented. The metered CO levels shall be included in the incident report narrative. Patient care shall be documented in the appropriate patient care EMS forms.

Bisbee Fire Department Standard Operating Procedures

# Alarm Activations

#2.13 Rev:03/2021

**SCOPE:**

This procedure shall apply to personnel responding to alarm activations including commercial fire alarms and residential fire public assists.

**PURPOSE:**

This will serve as the guide when responding to fire alarm incidents.

**SAFETY:**

While operating on alarm activations, safe driving must be practiced at all times. Proper PPE and respiratory protection shall be worn until the situation is deemed safe.

**PROCEDURE:**

**Commercial Fire Alarm**

When responding to a fire alarm that is a known commercial or high occupancy building, a full structural response is warranted.

**Investigation**

Responding units should first access the Fire Alarm Panel (FAP) or enunciator and attempt to determine which initiating device caused the alarm. A thorough investigation of the structure is essential to ensure the alarm is only a nuisance alarm. If there is no FAP or the FAP cannot be located, the entire building shall be searched and deemed clear before clearing the scene.

**Documentation**

All fire alarm responses need to have fire reports completed and exported to NFIRS by the Incident Commander.

**False Alarms**

False alarms also include the intentional false reporting of an emergency or purposeful initiation of a fire alarm when no signs of fire are present. False alarms should be investigated and documented thoroughly. Law enforcement assistance should be requested as needed.

**Public Assist**

Requests for assistance concerning residential smoke and carbon monoxide detectors will be handled in a timely and professional manner.

1. Nuisance residential alarms- Fire personnel should investigate and rule out fire as a result of the alarm. Personnel should then assist the occupant in resetting the alarm. If the unit continues to alarm, it may need to be cleaned or replaced. Alarms older than 10 years should be replaced as soon as possible.
2. Low Battery Alerts – Low battery alerts produce a characteristic "chirp" designed to notify the occupants of the low battery situation. Fire personnel can assist occupants with changing batteries if needed. Some alarms will chirp to notify the occupant that the detector is past its shelf life, in which case the unit will need to be replaced
3. In cases where the cause of malfunction cannot be identified and when the installation of new smoke detectors requires new wiring, the occupant shall be instructed to seek the assistance of a qualified electrician.
4. Carbon Monoxide (CO) Detectors- For response to CO incidents, refer to the Carbon Monoxide Response SOP.

Bisbee Fire Department Standard Operating Procedures

# After Action Review

#2.14 Rev:03/2021

**SCOPE:**

This policy will relate to the After Action Review (AAR) process utilized for post-incident analysis.

**PURPOSE:**

To identify the responsibilities of all members in ensuring a comprehensive AAR process is maintained and utilized.

**SAFETY:**

AAR has a direct impact on firefighter safety by identifying shortcomings and collectively identifying solutions.

**PROCEDURE:**

After Action Review (AAR) is a tool for assessing what happened during an activity and whether any lessons could help in future situations.

As the number of fires we respond to continues to decline, even as our demand for service increases, fewer fires lead to less actual firefighting experience for personnel.

Conducting routine AARs is one way to bridge the experience gap.

The goal of an AAR is to compile and catalog problems encountered and successful actions taken and then draw from the lessons learned to improve plans and procedures, evaluate the effectiveness of training, and ensure firefighters are correctly applying the skills they have learned. AARs are not meant to be punitive but rather to educate and train.

The following are examples of the inherent value of AAR's and what it can accomplish:

- Proved our personnel with a clear indication of the impact our actions had on the general outcome of an incident
- Analyze and compare how different applied strategies and tactics affect the outcome of incidents
- Identify trends and patterns in errors during emergency operations so that immediate action can be taken to prevent them from reoccurring
- Identify positive outcomes that reflect proper attention to procedures, good decision making and leadership skills
- Catalyze revising flawed tactical plans and SOPs
- Help identify the need for additional or remedial training
- Serve as technical reference material to be cataloged for retrieval and examination during any similar future incidents
- Disseminate critical lessons learned during an incident to personnel throughout the department
- Identify fire prevention and code enforcement deficiencies
- Identify environmental and operations challenges that contribute to civilian and firefighter injuries and fatalities

**Informal AAR**

Informal AARs shall occur at the company level after every incident. The goal of informal AARs is to drive the overall improvement of fire department operations, identify training needs, and help build resiliency in our personnel. Informal AARs are simple, quick, and immediately responsive to the situation and the people involved. Whenever possible, informal AARs should be conducted shortly after the completion of the incident. It is the shift officer's responsibility to ensure informal AARs are conducted. Informal AARs will be conducted by seeking to answer the following four key questions:

1. What was our mission/ intention?
2. What went well?
3. What could have gone better?
4. What might we have done differently?

During informal AARs, the shift officer serves as the moderator to ensure the discussion stays on track. Each crew member should be given the opportunity to explain his/ her assigned tasks, any problems encountered, and actions taken during the incident.

The officer should take the time to recognize exceptional performances by personnel.

Any adverse performance-related discussion with employees should be conducted in private, but they should take place, especially since mistakes can place other firefighters at greater risk. The rest of the crew needs to know that all problems will be addressed, even if some are handled behind closed doors.

If operations fail to go as planned, the problems need to be identified and corrected.

Officers must include themselves in this exercise by explaining their responsibilities and actions during the incident and admitting to any tactical mistakes they may have made.

**Formal AAR**

The formal critique is a detailed review and analysis of any complex or tactically challenging incident. The formal AAR is used to reconstruct an incident to determine if an appropriate tactical plan was in place and if it was followed, as well as how effective it was in mitigating the incident. Every aspect of the incident is carefully reviewed and analyzed to determine what went well, what could be improved, and why. The results of such analysis can suggest changes to future plans and SOPs if necessary. A formal AAR shall be held for the following incident types:

- All working structure fires
- Any fire (regardless of severity or complexity) in a high-risk building; or in a building where fire protection features influenced event outcomes
- All hazardous materials incidents that exceed the level of "Still Hazmat"
- All technical rescues
- Any multiple patient or mass-casualty incidents
- Any other incident type as deemed appropriate by the shift officer

The shift officer is responsible for scheduling the formal AAR.

The formal critique should be limited to relevant personnel (those directly involved in the incident), and scheduled as soon as possible and practical after the incident (if possible, within a few days of the original incident). Relevant personnel shall be notified of the date, time, and place where the AAR is to be conducted.

Invitations to the AAR should be extended to any other public safety agencies involved in the incident. In some cases, it may not be possible for agencies to send everyone involved in the incident. In this case, the information presented should be made available to those agencies by email or other appropriate means.

Once a determination has been made for a formal AAR, the Incident Commander or his/ her designee shall be responsible for the preparation and presentation of the AAR. The information included in the presentation should include initial dispatch information, actions and tactics of responding units, positive and negative outcomes, any preliminary investigation information, and any other pertinent information including pictures if possible.

After the AAR all information to include the fire report should be readily available to any and all personnel.

Bisbee Fire Department Standard Operating Procedures

# Fire Investigations

#2.15 Rev:03/2021

**SCOPE:**

This policy applies to fires of questionable origin in which the Incident Commander or Chief Officer determines the need to conduct a formal investigation of the fire origin and cause.

**PURPOSE:**

The purpose of this procedure is to establish recommendations for a safe and systematic investigation or analysis of fire and explosion incidents. The goal is to assist in determining the origin and cause of a fire as well as to correlate information and/ or evidence as it relates to the circumstances specific to the incident.

Because every incident is unique, this procedure is designed to assist the investigation officer with written parameters that will serve as a systematic framework, which is essential during fire origin and cause investigations.

Reference materials may include, and shall not be limited to, the currently adopted edition of the International Fire Code (IFC), National Fire Protection Act (NFPA) 921 – Fire and Explosion Investigations.

**SAFETY:**

Fire Investigators are faced with a multitude of hazards. Therefore, investigators have a duty to protect themselves and others from hazards that are present at the fire scene.

The fire investigator may be expected to operate in areas that contain toxic atmospheres and compromised structural systems. As dangerous as these situations are, an assertive effort must also be extended to safeguard bystanders and technical personnel.

The physical and biological hazards encountered at any fire scene mandate the need to don PPE appropriate to a given incident. The minimum requirements shall be coveralls and/ or turnout pants and coat; helmet, eye protection, foot protection, and gloves, all of which shall be NFPA approved.

Respiratory protection is an ongoing concern during the investigation phase of the incident. Air monitoring shall be performed throughout this phase and whenever Carbon Monoxide (CO) levels on the scene are found to be greater than zero PPM, SCBA shall be worn, Due to the extended nature of the fire investigations phase of the incident and the risk of prolonged exposure to suspended particulates, the minimum level of respiratory protection during investigations (even when CO levels are zero PPM) shall be a filter mask with particulate filtering capability (N95).

The fire scene contains many hazards that can affect the health and safety of the fire investigator. Whenever an investigation is conducted where a hazardous condition exists, the investigator shall not work alone.

The investigator shall always carry a two-way radio or cell phone as a means to communicate within and outside of the fire scene.

**PROCEDURE:**

The first step is to realize there is a problem to be resolved – something that is self-evident because the investigator is notified of an incident and asked to determine its origin and cause. Every attempt will be made to provide a fire investigator, when available, to assist with the origin and cause investigation of fires occurring within the Bisbee Fire Department jurisdiction.

**<u>Planning the Investigation</u>**

For any fire investigation, planning is an important first step. Considerations should include the size and complexity of the fire scene, level of safety at the scene, potential loss of life, number of investigators, staffing, and budget.

It is essential to utilize the team concept whenever possible. A fire scene investigation includes photography, sketching, evidence collection, witness interviews/ statements, and other varied tasks that require diverse skills. The "team" concept affords the investigation the ability to delegate the above tasks to the individual(s) best qualified to perform them – thus ensuring a thorough and professional investigation.

Given the complexity of an investigation, planning should always allow for the possibility that sometime during the investigation it will be necessary to bring in

additional personnel or consultants – people with specialized expertise to assist in analyzing the incident or specific aspects of the investigation.
Experts may be available from other government agencies (local law enforcement, Arizona State Fire Marshal's Office, CCSO, ATF, DEA, DPS, FBI). Specialists to consider should include the accelerant canine team; mechanical, structural, electrical, fire protection, and chemical engineers, attorney, and insurance agent/adjuster.

## **Fire Scene Coordination:**

Protection of the fire scene and preservation of physical evidence is a primary concern once life safety and fire control are achieved. An attempt to identify the victims and witnesses at the fire scene will be made as soon as possible.

Fire scene personnel will delay non-essential overhaul and secure the fire scene to assist the Fire Investigator. Salvage and all unnecessary interim activities that may alter, contaminate the fire scene, or interfere with a subsequent origin and cause investigation must be discontinued until authorized to continue by the Fire Investigator.

The fire department will assign personnel to protect and maintain custody of the fire scene until the arrival of a fire investigator, especially when there is no fire investigator on duty and a delayed response is expected. If a physical fire watch is enforced, allow no unauthorized person to enter. The fire department has the authority to close the scene, even to the owner.

After achieving fire control, the fire department may release personnel not required for the completion of the investigation and/or overhaul. Upon arrival at the fire scene, the Fire Investigator will report to the Incident Commander to obtain an initial briefing. The fire department will make every effort to provide the personnel and equipment necessary to support the investigation.

## **Evidence Preservation:**

Every fire scene contains evidence. Firefighting operations present the greatest potential for damage to evidence, which may be used by the Fire Investigator and law enforcement in subsequent court cases and prosecution. It is imperative to preserve evidence as found in place and not to move fire debris unnecessarily.

Special care exercised during extinguishment will avoid the destruction of evidence through the misuse of fire streams. If arson is suspected, use electric fans instead of gas fans, or ventilate naturally when the situation allows. If gas fans must be used, refuel the unit away from the fire scene and clean off any spilled fuel before returning the fan to ventilation operations.

Salvage operations should be minimal until the initial fire investigation is complete and should be confined to diminishing loss.

During fire suppression activities, suspects and/or witnesses may be encountered. Do not make accusations or attempt to question these individuals on anything other than the basic events leading up to the fire (where they were, how it was discovered, what steps they took, etc.). The best guideline would be to limit questioning to information that you would need to complete your basic fire report.

The fire scene must be secured. Evidence cannot be used in court unless the Fire Investigator can establish a chain of custody by proving who found the evidence, where it was found, and that the evidence was not tampered with while in official custody. If evidence is readily identifiable, take steps to protect it IN PLACE. If it is essential that evidence be moved, or if necessary fire fighting operations may damage evidence, the evidence should be photographed and covered if possible and carefully moved to a secure location as a last resort.

The Fire Investigator will search the scene carefully and thoroughly, photograph and diagram if necessary, and collect and preserve evidence. If evidence needs to be collected, the local law enforcement and local fire investigator will identify, photograph, and collect it in a suitable manner. Any evidence collected will be turned over to the local law enforcement agency having jurisdiction for safekeeping and processing if required.

If a fire is believed to have been caused by a mechanical or electrical failure or misuse of an appliance which may result in civil litigation, the appliance or assembly should be released to the occupant after proper evidence identification is obtained. Owners shall be advised to follow up with their insurance carrier representative regarding the loss.

When arson is suspected, the Fire Investigator will notify the law enforcement agency having jurisdiction to initiate a joint investigation. It should be the role of the Fire Investigator to provide technical support for the criminal investigation by developing an opinion on the origin and cause of the fire, identifying critical evidence, and ruling out other possible fire causes. The law enforcement agency having jurisdiction is responsible for the collection of information and feedback regarding any witness/suspect interviews.

**Documentation of the investigation (NFPA 921 Chapter 13)**

The investigator's goal is to record the scene through a medium that will allow the investigator to recall his or her observations at a later date. This will be obtained through thorough written reports with supporting documentation via photographs, video, audio, and sketches. Digital cameras shall be the major mode of photographing a fire scene.

Copies of the photos shall be filed with each incident report. All documentation must be approved by the fire marshal before any media or public information is released.

**Origin Determination (NFPA 921, Chapter 15)**

The origin of the fire is the location at which the fire started. If the origin cannot be identified, the cause cannot be determined. This may be achieved by a thorough examination of fire scene assessment, fire damage assessment, scenario development, interior and exterior reconstruction, fire spread, and total burn as they relate to the origin determination.

The fire's **area of origin** refers to the room, building, or general area in which the point of origin is located.

The fire's **point of origin** is the exact location where the heat source and the fuel come into contact with each other and the fire begins – such as where a lighted match comes into contact with a container of gasoline. Determining the area and point of origin is essential to determining the cause. The task may be difficult depending on the amount of evidence, facts, or data that has been gathered; the reliability of the evidence, and the amount of destruction.

To determine the origin of a fire, the investigator must be systematic in examining the fire scene. By being systematic and using a scientific approach, the investigator can reduce any potential errors or oversights that may creep into the process, while developing a standard approach that addresses the requirements of a complete fire scene investigation.

A recommended approach is for the investigator to work from the outside of the fire toward the area of origin – or the area of least damage to the area of the most fire damage. This will direct investigators to a specific search of the fire area while analyzing burn patterns can identify potential areas of origin that are supported by facts. Using the opposite procedure can lead the investigator to develop a hypothesis (assumption) as to what the area of origin is and collect data to support additional theories. However, there are times when the investigator can vary from this procedure based on information that is available at the time of the investigation.

The preliminary scene assessment provides an overall look at the structure. It enables the investigator to determine what resources may be needed (equipment, staffing, security). It also helps the investigator to identify safety concerns (utilities, unstable structures, weather) and identify areas that require further study, which provides an important element in addressing the "big picture" perspective of the scene and damage.

The preliminary scene assessment should include an examination of the surrounding areas, weather, and exterior and interior observations.

## Reports

The purpose of a report is to effectively communicate observations, analyses, and conclusions made during an investigation.

Descriptive information: Generally, reports should contain the following information, preferably in the introduction:

1. Date, time, and location of the incident
2. Date and location of the examination
3. Date the report was prepared
4. Name of the person or entity requesting the report
5. The scope of the investigation (tasks completed)
6. Nature of the report (preliminary, interim, final, summary, supplementary)

Pertinent facts: A description of the incident scene. Items examined and evidence collected should be provided. The report should contain observations and information relevant to opinions. Photographs, diagrams, and laboratory reports may be referenced.

Opinions and Conclusions: The report should contain the opinions and conclusions rendered by the investigator. The report should also contain the foundations on which the opinion and conclusions are based as well as the names and contact information of each person who has rendered an opinion.

**ALL FIRES "UNDER INVESTIGATION" SHALL MAINTAIN CONFIDENTIALITY WITH LIMITED TO NO INFORMATION RELEASED, INCLUDING ANY REPORTS ASSOCIATED WITH THE INCIDENT, UNITL APPROVED BY THE FIRE CHIEF, FIRE MARSHAL, OR LOCAL LAW ENFORCEMENT.**

Bisbee Fire Department Standard Operating Procedures

# Station Operations

#2.16 Rev:03/2021

**SCOPE:**

Operations described below shall apply to all personnel employed by the Bisbee Fire Department.

**PURPOSE:**

Day-to-day operations directly impact the quality of service provided to citizens. These standards are set to ensure all vehicles, equipment, personnel, and stations are operational at all times.

**SAFETY:**

Ensuring all vehicles, equipment, personnel, and stations are in good working condition decreases the chance of injury or damage. Safety is the number 1 priority during any operation and should be a daily goal of all personnel.

**PROCEDURE:**

## Daily Operations

Shift change will take place at 0700 every day. All personnel scheduled for duty will need to report to their assigned station by that time. If for any reason, a shift member will not arrive on time or will be calling in sick, he or she shall contact their shift supervisor so arrangements can be made to ensure minimum staffing levels are met.

The on-coming and off-going shift supervisor will meet at shift change and exchange information on the prior shifts activities, vehicle and equipment needs/ problems, and any other information that may be pertinent for daily operations. ALS providers will pass information to one another about drug boxes and ambulance status.

Vehicle Checks and Maintenance

It is the responsibility of each shift to check and maintain the in-service vehicles utilized in department operations. These checks should be done every day at the start of the shift. This will include all ambulances, engines, brush trucks, rescue trucks, tenders, and support vehicles. Each vehicle will be provided with a check sheet that will need to be filled out each shift.

All fluids should be checked daily. If any fluid levels are found low, it should be reported to the shift officer and filled to the appropriate level with the appropriate fluid. All fluids should be stocked at Station 81.

Daily fire apparatus checks will include running the pump, and ensuring all required equipment is present and in good working condition. If equipment is found missing, it should be attempted to locate it and return it to service. If it cannot be found a replacement should be put in its place and should then be reported to the shift officer. If equipment is found to be in disrepair, personnel should attempt to repair it only if he or she is competent to do so. If repairs needed exceed the capabilities of personnel, that tool will be removed from service, and tagged OOS with the date and reason for removal. The tool will then be sent to the appropriate repair technician. A replacement will then need to be placed on the apparatus.

Daily ambulance checks will include checking the levels of all oxygen tanks, ensuring all medical equipment is present and stocked in the appropriate quantities, and running a daily check on the cardiac monitor. ALS providers will check the drug box every day. If any medical equipment is found missing or under the appropriate quantities, it should be restocked from the EMS supply closets located at Station 81.

Daily Log

Every shift, a brief description of the daily activities, staffing, and special events shall be logged into the daily log at Station 81.

Every alarm will need to be entered into the daily log with the following information:

- Alarm Number
- Type of Call
- Shift Responding
- Station Responding
- Address of the Alarm
- Times
- Attendee for Medical Alarms

Station Chores

Both, Station 81 and Station 82, are public buildings and need to be kept in a presentable manner. Every shift, the stations should be cleaned and the following tasks completed:

- Kitchens and dishes are cleaned
- Floors are swept and mopped
- Trashes are taken to the dumpster
- Bathrooms are cleaned, toilet paper and paper towels replaced as needed
- Vacuumed
- Flags are raised or lowered to the appropriate level

Tobacco Use

The Bisbee Fire Department adheres to the City of Bisbee policy on tobacco use. No tobacco is to be used in city buildings or vehicles. Tobacco use will also not be used on calls or when in contact with the public on any given alarm. Waste from tobacco use will be disposed of properly.

Additionally, vape pens will not be used in city buildings. They may be used in designated smoking areas.

**Weekly Operations**

Each day of the week will have a specific chore to be completed.

Sunday

- Office Detail
    - Offices need to be cleaned and organized

Monday

- Vehicle Cabs
    - Vehicle Cabs need to be vacuumed, wiped out, and organized
- Station Windows
- Station Doors

Tuesday

- SCBA Checks
    - SCBAs will be filled to 4500 PSI and inspected to ensure they are in good working order.
    - If a problem is found, the SCBA shall be removed from service, tagged OOS with the date and problem found
- Kitchen Detail
    - Countertops will be cleared, fridges should be cleaned, and appliances cleaned

Wednesday

- Ambulance Inventory and detail
    - Ensure all medical equipment is present and in appropriate quantities
    - The patient compartment should be cleaned and disinfected
- Restroom Detail
    - Showers should be cleaned
    - Cabinets should be cleaned and organized
    - Towels should be laundered
- Closets
    - Clean and organize the station closets

Thursday

- Bay Floors
    - Bay floors should be swept and cleaned properly
- Bays should be cleaned and organized
    - Including Lockers and closets
- Work Benches
    - Work benches should be cleared and organized

Friday

- Small Engines
    - All small engines should be run, topped off with fuel, and all fluids checked.
- Whiteboards/ bulletin boards
    - Whiteboards should be cleared of nonrelevant information and cleaned
    - Bulletin boards should be checked for old and outdated postings
- Bunk Room Detail
    - Bunkrooms should be cleared and wiped down. Mattress covers should be laundered.

Saturday

- Yard Day
    - Yards should be cleaned of trash and debris. Any outside equipment should be organized. Grass should be cut if necessary.

**End-of-Month Operations**

At the end of every month, all vehicle check sheets will be removed from clipboards and filed in the appropriate folders in the filing cabinets. New check sheets will then be placed on the clipboards. Vehicle mileage will be written on the vehicle board at Station 81.

## Placing Apparatus Back Into Service

After all calls for service, the apparatus that responded will need to be placed back into service.

Fire Apparatus

Once a fire assignment is complete, the apparatus that responded will need to be placed back into service. The following is a list of requirements for getting the apparatus back into service:

- Refill all fuel tanks
    - This includes the vehicle fuel tank, saws, generators, or pumps
- Replace all used hose with dry and clean hose
- All booster tanks will be filled
- All SCBAs will be cleaned, disinfected, and filled to 4500 PSI
- All hand tools will be cleaned and disinfected
    - Any edged tools (Axes, Shovels, Mcleod, Combi-tools, Pulaski, etc.) will need to be sharpened and painted

The shift after a fire, any hose used will need to be tested, cleaned, and hung to dry. The following shift, that hose will then be rolled and put away on the hose racks.

Ambulances

Any supplies used during a medical call will need to be replaced upon returning to the station. If batteries on the gurney, monitor, portable suction, or small pieces of equipment are dead, they will be charged and replaced with fresh batteries.

## Washing Apparatus

Vehicles shall always be kept in a presentable manner. The vehicles will be washed when dirty, regardless of day.